



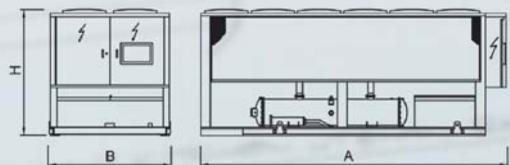
Air cooled unit with magnetic levitation centrifugal compressors.
From 220 to 1.325 kW.

TECS2 / SL-CA			0211	0251	0351	0452	0512	0552	0652	0712	0853	0913	1013	1054	1154	
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	400/3/50	400/3/50	400/3/50	400/3/50
Performance																
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)		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)		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)		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)		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	
Exchangers																
Heat exchanger user side in refrigeration																
Water flow	(1)	m ³ /h	40,1	44,4	59,5	76,1	87,6	98,8	112	128	146	156	168	183	204	
Pressure drop	(1)	kPa	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	
Compressors																
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	
Noise level																
Noise Pressure	(3)	dB(A)	56	56	58	58	58	59	59	59	60	60	60	61	61	
Noise Power	(4)	dB(A)	88	88	90	90	90	91	92	92	93	93	93	94	94	
Size and weight																
A	(5)	mm	3100	3100	4000	4900	4900	5800	7000	7000	8500	9700	10600	11200	11500	
B	(5)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	
H	(5)	mm	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	
Operating weight	(5)	kg	2320	2370	3050	4000	4240	4530	5800	6150	6940	7370	8150	8700	9020	

Note

- 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 EN14511-3:2011
- 3) Average sound pressure level, at 10m distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.
- 4) Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units.
- 5) Unit in standard configuration/execution, without optional accessories.

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



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 in fact, as higher waterflow is sprayed to the net, and most of it evaporate 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 / XL-CA		0211	0251	0351	0452	0512	0552	0652	0712	0853	0913	1013	1054	1154	
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	400/3/50	400/3/50	400/3/50	
Performance															
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)		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)		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)		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)		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
Exchangers															
Heat exchanger user side in refrigeration															
Water flow	(1)	m ³ /h	37,9	43,8	58,7	74,9	90,5	99,7	110	127	150	155	167	181	202
Pressure drop	(1)	kPa	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
Compressors															
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
Noise level															
Noise Pressure	(3)	dB(A)	50	50	51	51	52	52	52	53	53	53	54	54	55
Noise Power	(4)	dB(A)	82	82	83	83	84	85	85	86	86	86	87	87	88
Size and weight															
A	(5)	mm	3100	3100	4000	4900	5800	7000	7000	7900	9400	9700	10600	11200	12400
B	(5)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(5)	mm	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430
Operating weight	(5)	kg	2370	2420	3200	4240	4690	5350	6150	6650	7520	7770	8650	9150	9960

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	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	400/3/50	400/3/50	
Performance															
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)		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)		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)		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)		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
Exchangers															
Heat exchanger user side in refrigeration															
Water flow	(1)	m ³ /h	39,4	49,0	66,2	78,3	90,7	102	121	137	155	167	187	203	228
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
Compressors															
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
Noise level															
Noise Pressure	(3)	dB(A)	56	56	58	58	58	59	59	59	60	60	60	61	62
Noise Power	(4)	dB(A)	88	88	90	90	90	91	92	92	93	93	93	94	95
Size and weight															
A	(5)	mm	3100	3100	4000	4900	4900	5800	7000	7900	8500	9700	10600	11200	12400
B	(5)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(5)	mm	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430
Operating weight	(5)	kg	2270	2350	3130	4070	4230	4570	6040	6450	7020	7610	8510	8660	9720

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 1000m ³ /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 IonTalk for supervisory systems both in BMS resources and Climaveneta devices (FWS3000, Manager3000)
- Remote keyboard; it offers access up to 10 units from a single point, 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