

TECS-FC

0211 - 1204

High efficiency air cooled chiller
with free-cooling
(302-1649 kW)



VERSIONS

K Compact units
CA High efficiency units

CONFIGURATIONS

- Standard
NG No Glycol



VPF



FREE C.



CENTRIF.



FLOODED



VSPEED



COOLING



R HFC R134a



EC AXIAL

TECS-FC /K			0211	0351	0452	0552	0652	0712	0903	0953	1003	1164	1204
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
PERFORMANCE													
COOLING ONLY (GROSS VALUE)													
Cooling capacity	(1)	kW	302	483	594	689	943	980	1185	1253	1421	1578	1649
Total power input	(1)	kW	87,1	141	179	181	285	275	320	373	425	455	461
EER	(1)	kW/kW	3,47	3,43	3,33	3,81	3,31	3,56	3,70	3,36	3,35	3,47	3,58
COOLING ONLY (EN14511 VALUE)													
Cooling capacity	(1)(2)	kW	300	479	590	684	936	973	1177	1246	1411	1567	1637
EER	(1)(2)	kW/kW	3,36	3,31	3,23	3,67	3,21	3,44	3,59	3,28	3,25	3,36	3,46
FREE-COOLING TOTALE (GROSS VALUE)													
Cooling capacity	(3)	kW	302	483	594	689	943	980	1185	1253	1421	1578	1649
EER	(3)	kW/kW	59,25	50,28	49,52	67,55	56,15	51,05	49,38	52,21	53,83	50,58	52,85
Total free-cooling temperature	(3)	°C	-1,9	-2,5	-1,9	-1,4	-2,7	-1,4	-1,2	-2,7	-2,5	-1,6	-1,8
ENERGY EFFICIENCY													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
Ambient refrigeration													
Prated,c	(8)	kW	261	414	507	608	800	851	1045	1069	1212	1361	1435
SEER	(8)(9)		4,91	4,62	4,66	5,23	4,73	4,77	4,62	4,46	4,53	4,38	4,41
Performance ηs	(8)(10)	%	193	182	184	206	186	188	182	175	178	172	173
EXCHANGERS													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
Water flow	(1)	l/s	16,01	25,57	31,48	36,50	49,98	51,93	62,78	66,38	75,30	83,61	87,35
Pressure drop	(1)	kPa	86,0	98,6	89,3	104	104	107	91,8	80,2	103	106	115
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	1	2	2	2	2	3	3	3	4	4
No. Circuits		N°	1	1	1	1	1	1	2	2	2	2	2
Refrigerant charge		kg	120	140	260	260	320	320	430	520	520	540	540
NOISE LEVEL													
Sound Pressure	(4)	dB(A)	56	61	62	58	63	63	64	64	65	65	65
Sound power level in cooling	(5)(6)	dB(A)	88	93	94	91	96	96	97	97	98	98	98
SIZE AND WEIGHT													
A	(7)	mm	4000	4000	4900	6400	7000	7900	10600	11200	11200	13000	13600
B	(7)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(7)	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Operating weight	(7)	kg	3430	3850	5080	5820	6340	6900	9750	10260	10530	12290	12350

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 15°C/10°C; Source (side) heat exchanger air (in) 30°C; Ethylene glycol 30%.
 - 2 Values in compliance with EN14511-3:2013.
 - 3 Plant (side) cooling exchanger water (in/out) 15°C/10°C; Ethylene glycol 30%.
 - 4 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.
 - 5 Sound power on the basis of measurements made in compliance with ISO 9614.
 - 6 Sound power level in cooling, outdoors.
 - 7 Unit in standard configuration/execution, without optional accessories.
 - 8 Seasonal energy efficiency of the cooling environment in AVERAGE climatic conditions [REGULATION (EU) N. 2016/2281]
 - 9 Seasonal space heating energy index
 - 10 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

TECS-FC /CA			0211	0251	0351	0452	0552	0712	0803	0903	1003
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
PERFORMANCE											
COOLING ONLY (GROSS VALUE)											
Cooling capacity	(1)	kW	310	354	496	616	714	990	1068	1209	1446
Total power input	(1)	kW	85,4	89,8	134	173	177	268	267	308	412
EER	(1)	kW/kW	3,63	3,94	3,69	3,56	4,03	3,69	4,00	3,92	3,51
COOLING ONLY (EN14511 VALUE)											
Cooling capacity	(1)(2)	kW	307	351	492	611	708	983	1062	1201	1436
EER	(1)(2)	kW/kW	3,50	3,79	3,56	3,44	3,87	3,56	3,90	3,80	3,40
FREE-COOLING TOTALE (GROSS VALUE)											
Cooling capacity	(3)	kW	310	354	496	616	714	990	1068	1209	1446
EER	(3)	kW/kW	60,71	52,04	58,36	60,37	52,51	58,25	52,35	54,71	65,43
Total free-cooling temperature	(3)	°C	-0,1	-0,2	-1,0	-0,5	0,4	-0,9	0,2	0,0	-1,6
ENERGY EFFICIENCY											
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)											
Ambient refrigeration											
Prated,c	(8)	kW	271	319	434	535	650	867	972	1086	1244
SEER	(8)(9)		5,04	4,95	5,05	5,18	5,26	5,16	5,21	5,06	4,94
Performance ηs	(8)(10)	%	199	195	199	204	207	204	205	199	195
EXCHANGERS											
HEAT EXCHANGER USER SIDE IN REFRIGERATION											
Water flow	(1)	l/s	16,40	18,75	26,28	32,63	37,83	52,47	56,60	64,05	76,60
Pressure drop	(1)	kPa	90,3	96,3	104	95,9	111	109	74,6	95,6	107
REFRIGERANT CIRCUIT											
Compressors nr.		N°	1	1	1	2	2	2	3	3	3
No. Circuits		N°	1	1	1	1	1	1	2	2	2
Refrigerant charge		kg	120	120	140	260	280	320	430	430	520
NOISE LEVEL											
Sound Pressure	(4)	dB(A)	56	57	58	58	59	60	61	61	61
Sound power level in cooling	(5)(6)	dB(A)	88	89	90	91	92	93	94	94	94
SIZE AND WEIGHT											
A	(7)	mm	4000	4000	4900	6400	7900	10000	12100	13000	13000
B	(7)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(7)	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500
Operating weight	(7)	kg	3660	3790	4380	5720	6770	8870	10530	11370	11730

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 15°C/10°C; Source (side) heat exchanger air (in) 30°C; Ethylene glycol 30%.
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Certified data in EUROVENT

ACCESSORIES

- ▶ Leak detector with automatic refrigerant migration
- ▶ Energy meter with BMS interface
- ▶ Electromagnetic compatibility (EMC) - EN6100-6-3 for residential environments

