

**Freecooling chillers EEF series, screw compressors R134a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned core and axial fans**

<b>Cooling Big Evolution</b>	<b>Model</b>	<b>210</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>470</b>	<b>510</b>	<b>580</b>	<b>650</b>	<b>700</b>	<b>850</b>	<b>1000</b>	<b>1100</b>	<b>1210</b>	<b>1350</b>
NOMINAL COOLING CAPACITY (1)	kW	242	274	299	352	420	461	510	582	651	728	860	984	1121	1241	1330
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)	kW	62,0	72,0	81,8	103,7	113,6	132,8	145,6	164,0	189,9	208,6	247,8	273,4	323,8	378,0	424,0
EER	kW/kW	3,29	3,28	3,20	3,05	3,25	3,11	3,09	3,17	3,05	3,09	3,09	3,19	3,09	2,98	2,85
SEPR (HT) (11)		6,56	6,29	6,22	6,13	6,20	5,84	6,05	5,97	6,03	5,93	5,76	5,96	5,80	5,71	5,61
AIR TEMPERATURE 100% FREE COOLING (2)	°C	0,9	-0,2	-1,4	-2,0	-1,6	-3,2	-1,6	-3,0	-1,8	-2,4	-2,4	-2,4	-2,6	-3,8	-3,4
COMPRESSORS	nr.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
REFRIGERATING CIRCUITS	nr.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
PARTITION STEPS PER COMPRESSOR	%	50-75-100														
<b>HYDRAULIC SECTION</b>																
NOMINAL WATER FLOW	m <sup>3</sup> /h	41,7	47,2	51,4	60,5	72,2	79,3	87,8	100,1	112,0	125,2	148,0	169,3	192,7	213,5	228,8
WATR FLOW RANGE	m <sup>3</sup> /h	25÷50	25÷57	35÷74	38÷80	40÷84	50÷106	59÷125	70÷143	76÷143	84÷177	99÷210	113÷230	132÷255	145÷285	152÷285
TYPE OF EVAPORATOR		Shell and Tube evaporator														
EVAPORATOR PRESSURE DROP (3)	kPa	49	57	61	64	70	71	73	57	65	60	69	76	73	69	75
FREE COOLING PRESSURE DROP (4)	kPa	109	131	116	115	126	116	120	117	139	110	109	127	136	146	163
AVAILABLE PRESSURE (5)	kPa	253,8	221,4	228,6	276,8	261,0	266,5	276,5	275,5	247,3	296,7	292,5	266,9	250,7	218,1	189,9
MAXIMUM PUMP ABSORBED POWER (5)	P3 kW	10,2	10,2	10,2	16,2	16,2	16,2	24,9	24,9	24,9	31,9	31,9	31,9	39,1	39,1	39,1
MAXIMUM PUMP ABSORBED CURRENT (5)	A	17,4	17,4	17,4	26,6	26,6	26,6	42,2	42,2	42,2	53,5	53,5	53,5	65,6	65,6	65,6
AVAILABLE PRESSURE (6)	kPa	507,3	483,7	491,9	483,2	501,7	506,2	509,4	511,3	480,2	557,1	550,0	523,3	501,2	480,4	445,3
MAXIMUM PUMP ABSORBED POWER (6)	P5 kW	19,9	19,9	19,9	19,9	31,9	31,9	39,1	39,1	39,1	57,65*	57,65*	57,65*	57,65*	57,65*	57,65*
MAXIMUM PUMP ABSORBED CURRENT (6)	A	32,7	32,7	32,7	32,7	53,5	53,5	65,6	65,6	65,6	93,5	93,5	93,5	93,5	93,5	93,5
HYDRAULIC CONNECTIONS (FLANGED)	DN	125	125	125	125	125	150	150	150	150	150	200	200	200	200	200
TANK VOLUME (7)	dm <sup>3</sup>	600	600	600	600	600	600	600	600	800	800	800	800	800	1000	1000
EXPANSION VESSELS NUMBER AND VOLUME (8)	nr. x liters	1 x 19							2 x 19							
<b>FAN SECTION (AXIAL)</b>																
RV "fan speed cut-phase regulator" included																
TOTAL AIR FLOW	m <sup>3</sup> /h	92400	91080	91080	91080	121440	121440	151800	151800	182160	212520	242880	273240	303600	303600	333960
FANS	nr.	6	6	6	6	8	8	10	10	12	14	16	18	20	20	22
FANS ABSORBED POWER	kW	11,64	11,64	11,64	11,64	15,52	15,52	19,40	19,40	23,28	27,16	31,04	34,92	38,80	38,80	42,68
FANS ABSORBED CURRENT	A	23,40	23,40	23,40	23,40	31,20	31,20	39,00	39,00	46,80	54,60	62,40	70,20	78,00	78,00	85,80
<b>TOTAL ELECTRIC DATA</b>																
IP54 protection rating, chillers suitable for outdoor installation																
NOMINAL ABSORBED POWER (10)	A	73,6	83,6	93,4	115,3	129,1	148,3	165,0	183,4	213,2	235,8	278,8	308,4	362,6	416,8	466,7
MAXIMUM ABSORBED CURRENT (F.L.A) (10)	A	155,4	195,4	239,4	271,4	319,2	355,2	349,0	403,0	438,8	482,6	622,4	690,2	718,0	798,0	911,8
MAXIMUM PEAK CURRENT (L.R.A) (10)		427,4	520,4	639,4	632,4	760,2	879,2	869,0	1022,0	1185,8	1291,6	1706,4	1822,2	2251,0	2467,0	3018,8
MAXIMUM PEAK CURRENT WITH SOFT START OPTION (L.R.A) (10)	A	359,8	438,2	537,8	535,4	643,2	742,0	734,0	861,8	997,2	1087,0	1433,6	1533,8	1880,4	2061,2	2514,8
ELECTRIC FEED	V/Ph/Hz	400/3/50														
<b>NOISE DATA</b>																
SOUND PRESSURE FOR STANDARD CONFIGURATION (9) (10)	dB(A)	65,2	66,2	66,3	65,8	66,5	66,4	69,1	70,0	69,5	70,0	70,8	71,2	71,9	72,4	73,1
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (9) (10)		63,7	64,2	64,2	64,0	65,0	64,9	66,7	67,3	67,3	67,9	68,6	69,1	69,6	69,9	70,5
<b>DIMENSIONS AND WEIGHT</b>																
LENGTH	mm	4050	4050	4050	4050	5000	5000	5950	5950	6900	7850	8800	9750	10700	10700	11650
WIDTH	mm	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (10)	kg	3700	3800	4000	4100	4900	5200	6000	6100	6800	7900	8750	9600	10500	10600	11500
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (10)	kg	3850	3950	4160	4270	5080	5390	6220	6320	7030	8190	9050	9950	10850	10950	11880

The manufacturer reserves the right to modify specifications without notice.

Updated on 11/01/2018

Data referred to:

- (1) Inlet/Outlet water temperature = +12/+7°C - Condenser air temperature = +35°C; fouling factor = 0.00043 m<sup>2</sup>/K.W.
- (2) Inlet/Outlet water temperature = +12/+7°C.
- (3) Evaporator + valve + piping pressure drop (no free cooling).
- (4) Free cooling + evaporator + valves + piping pressure drop.
- (5) Data referred to WP option(chiller with inbuilt pump P3)
- (6) Data referred to PH option (chiller with inbuilt pump P5)

(7) Minimum water content for the hydraulic circuit to be verified.

(8) Data referred to XV option(expansion vessel kit)

(9) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

(10) Data referred to standard chiller configuration NT.NP (chiller without pump and without tank)

(11) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers  
\*pump P5 includes the soft start (SF) option