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Free cooling chillers ITF series, inverter driven screw compressors R134a, shell and tube evaporator, condenser with copper tubes and aluminium finned core and axial fans - High efficency CLASS A

Cooling Big Evolution	**Model**	**230**	**280**	**450**	**510**	**560**	**630**	**700**	**770**	**860**	**950**
NOMINAL COOLING CAPACITY (1)	kW	224	274	449	508	563	631	695	774	858	955
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)	kW	64,5	85,1	128,6	145,6	165,2	186,2	218,0	239,0	276,0	307,8
COP (1)	kW/kW	3,48	3,22	3,49	3,49	3,41	3,39	3,19	3,24	3,11	3,10
EER (1)	kW/kW	2,95	2,83	3,03	3,08	2,99	3,01	2,84	2,87	2,76	2,75
TOTAL COMPRESSORS ABSORBED POWER AT 50% LOAD (2)	kW	18,0	21,8	36,0	40,0	44,6	48,6	56,4	61,8	68,0	75,6
COP (2)	kW/kW	6,29	6,38	6,29	6,44	6,42	6,51	6,26	6,32	6,42	6,37
EER (2)	kW/kW	4,75	5,04	4,95	5,18	5,09	5,26	5,05	5,05	5,10	5,07
ESEER		4,64	4,89	4,81	5,00	4,91	5,05	4,84	4,83	4,87	4,83
IPLV		5,34	5,75	5,54	5,78	5,70	5,87	5,68	5,66	5,71	5,68
AIR TEMPERATURE 100% FREE COOLING (3)	°C	-0,2	-2,1	-2,4	-5,1	-3,8	-5,1	-4,1	-3,6	-3,2	-3,1
COMPRESSORS	nr.	1	1	2	2	2	2	2	2	2	2
REFRIGERATING CIRCUITS	nr.	1	1	2	2	2	2	2	2	2	2
WITH ECONOMIZER (1)		NO	NO	NO	NO	NO	YES	NO	YES	NO	YES
NOMINAL WORKING FREQUENCY OF COMPRESSORS (1)	%	80%	100%	80%	90%	100%	100%	100%	100%	98%	100%
HYDRAULIC SECTION											
NOMINAL WATER FLOW	m3/h	38,6	47,1	77,2	87,4	96,9	108,6	119,6	133,2	147,6	164,2
EVAPORATOR PRESSURE DROP (4)	kPa	61	63	77	83	86	79	78	71	77	80
FREE COOLING PRESSURE DROP (5)	kPa	105	121	138	133	136	139	149	127	144	163
AVAILABLE PRESSURE (6)	mca	19	24	25	24	24	22	20	22	25	22
MAXIMUM PUMP ABSORBED POWER (6)	kW	6,3	8,6	16,5	16,5	20,1	20,1	20,1	20,1	32,3	32,3
MAXIMUM PUMP ABSORBED CURRENT (6)	A	10,4	14,3	26,2	26,2	32,9	32,9	32,9	32,9	53,6	53,6
HYDRAULIC CONNECTIONS (VICTAULIC)	DN	125	125	150	150	150	150	150	200	200	200
TANK VOLUME (6)	dm3	500	500	800	800	800	800	800	800	800	1000
FAN SECTION (AXIAL)											
CONDENSER COILS	nr.	1	1	4	4	4	4	4	4	4	4
TOTAL AIR FLOW	m3/h	82800	82800	148000	148000	177600	177600	207200	236800	266400	296000
FANS	nr.	6	6	10	10	12	12	14	16	18	20
FANS ABSORBED POWER	kW	11,64	11,64	19,40	19,40	23,28	23,28	27,16	31,04	34,92	38,80
FANS ABSORBED CURRENT	A	23,40	23,40	39,00	39,00	46,80	46,80	54,60	62,40	70,20	78,00
TOTAL ELECTRIC DATA											
NOMINAL ABSORBED POWER (7)	kW	82,4	105,4	164,5	181,5	208,5	229,5	265,2	290,1	343,2	378,9
MAXIMUM ABSORBED CURRENT (F.L.A.) (7)	A	253,8	257,7	505,2	505,2	519,7	519,7	607,5	615,3	803,8	811,6
STARTING CURRENT (L.R.A.) (7)	A	38,8	42,7	290,2	290,2	304,7	304,7	352,5	360,3	468,8	476,6
ELECTRIC FEED	V/Ph/Hz	400/3/50									
NOISE DATA											
SOUND PRESSURE (8)	dB(A)	65,2	67,9	67,7	69,0	70,8	70,8	71,6	71,7	71,9	72,6
DIMENSIONS AND WEIGHT											
LENGTH	mm	6350	6350	5950	5950	6900	6900	7850	8800	9750	10650
WIDTH	mm	1305	1305	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT	mm	2180	2180	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY	kg	2970	3090	5950	6050	6710	6810	7620	8220	9180	10080
WEIGHT OPERATIVE	kg	3820	3940	6800	6900	7610	7710	8620	9520	10280	11180

The manufacturer reserves the right to modify specifications without notice.

Updated on 15/06/2015

Data referred to:

(1) 100% of Load - Inlet/Outlet water temperature = +12/+7 °C - Condenser air temperature = +35°C; fouling factor = 0.000043 m²K/W.
(2) 50% of Load - Inlet/Outlet water temperature = +12/+7 °C - Condenser air temperature = +25°C; fouling factor = 0.000043 m²K/W; without economizer.
(3) Inlet/outlet water temperature = +12/+7 °C.
(4) Evaporator + valve + piping pressure drop (no free cooling).
(5) Free cooling + evaporator + valves + piping pressure drop.
(6) With options NT.WP (no tank - water pump) or T.WP (tank - water pump).
(7) Data referred at 100% of frequency of inverter driven screw compressors. Pump assorbed power and current included.
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface