

Freecooling chillers NOVAF series, screw compressors R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned core and axial fans Each model is equipped as standard with 2 refrigerant circuits, 2 compressors each with partition steps per compressor 50-75-100. Electrical feed 400V/3ph/50Hz.

Available Models configuration:

ECO.M2: standard configuration, with economizer and standard compressor motor size

HE.M2: High efficiency configuration with EC fans, optimized coil design and standard compressor motor size

NE.M2 = chiller without economizer, with standard compressor motor size

Note: All models are available also with M1 configuration that allow a bigger envelope for high ambient and/or leaving water temperature. The overall performances between m1 and m2 motor are very similar, with the exception of peak current (as reported below in the technical information).

TECHNICAL DATA										
PERFORMANCES										
	Model	663/F4***	683/F6	693/F6	773/F6	783/F8	793/F8	863/F8	873/F10	
ECO.M2	NOMINAL COOLING CAPACITY (1)	kW	266	326	355	406	486	532	577	672
	TOTAL NOMINAL ABSORBED POWER (1)	kW	74,52	78,59	87,19	110,75	127,53	146,42	168,11	176,85
	EER (1)	kW/kW	3,57	4,15	4,08	3,67	3,81	3,63	3,43	3,80
HE.M2	AIR TEMPERATURE 100% FREE COOLING (2)	°C	-1,0	0,9	0,0	-1,4	0,6	-0,2	-1,2	-0,5
	NOMINAL COOLING CAPACITY (1)	kW	280	337	369	424	504	553	600	699
	TOTAL NOMINAL ABSORBED POWER (1)	kW	68,16	76,24	80,28	102,52	118,18	134,81	154,78	162,83
NE.M2	EER (1)	kW/kW	4,11	4,42	4,60	4,13	4,26	4,10	3,87	4,30
	AIR TEMPERATURE 100% FREE COOLING (2)	°C	-3,7	-2,7	-2,4	-4,1	-1,5	-2,5	-3,6	-2,4
	NOMINAL COOLING CAPACITY (1)	kW	249	305	338	383	458	501	543	635
	TOTAL NOMINAL ABSORBED POWER (1)	kW	66,36	71,84	80,64	100,58	115,70	132,97	152,81	158,60
	EER (1)	kW/kW	3,75	4,25	4,19	3,80	3,96	3,77	3,55	4,00
	AIR TEMPERATURE 100% FREE COOLING (2)	°C	-0,4	1,6	0,7	-0,7	1,4	0,5	-0,5	0,3
Standard values for SEPR Calculation, ECO.M2 Configuration (STD)										
	COOLING CAPACITY (3)	kW	244	299	326	373	446	488	529	616
	TOTAL NOMINAL ABSORBED POWER (3)	kW	79,2	83,2	92,4	117,6	135,3	155,5	178,7	187,8
	EER (3)	kW/kW	2,81	3,15	3,13	2,88	2,96	2,85	2,72	2,97
	SEPR (HT) (4)		5,44	5,83	5,84	5,59	5,71	5,58	5,38	5,60
HYDRAULIC SECTION										
	NOMINAL WATER FLOW	m3/h	42,1	51,6	56,2	64,3	76,9	84,1	91,2	106,3
	WATR FLOW RANGE	m3/h	30÷60	38÷67	38÷74	38÷74	47÷95	56÷110	61÷120	70÷130
	HYDRAULIC CONNECTIONS (FLANGED)	DN	125	125	125	125	150	150	150	150
FAN SECTION (AXIAL) RV "fan speed cut-phase regulator" included										
	FANS	nr.	4	6	6	6	8	8	8	10
	MAXIMUM FANS ABSORBED POWER	kW	7,76	11,64	11,64	11,64	15,52	15,52	15,52	19,40
	MAXIMUM FANS ABSORBED CURRENT	A	15,60	23,40	23,40	23,40	31,20	31,20	31,20	39,00
TOTAL ELECTRIC DATA IP54 protection rating, chillers suitable for outdoor installation										
	MAXIMUM ABSORBED CURRENT (F.L.A) (5)	A	147,6	195,4	239,4	271,4	319,2	355,2	341,2	403,0
	MAXIMUM PEAK CURRENT (L.R.A) (5)	A	419,6	520,4	639,4	632,4	760,2	879,2	861,2	1022,0
	MAXIMUM PEAK CURRENT WITH M1 CONFIGURATION (L.R.A) (5)	A	547,6	552,4	680,4	795,4	939,2	1062,2	1068,2	1180,0
NOISE DATA										
	SOUND PRESSURE FOR STANDARD CONFIGURATION (5) (6)	dB(A)	64,3	65,2	66,3	65,8	66,5	66,4	68,7	70,0
	SOUND PRESSURE FOR LOW NOISE CONFIGURTION (5) (6)	dB(A)	62,3	63,7	64,2	64,0	65,0	64,9	66,1	67,3
DIMENSIONS AND WEIGHT										
	LENGTH	mm	3100	4050	4050	4050	5000	5000	5000	5950
	WIDTH	mm	2210	2210	2210	2210	2210	2210	2210	2210
	HEIGHT	mm	2450	2450	2450	2450	2450	2450	2450	2450
	WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)	kg	3300	4000	4100	4200	4900	5100	5200	6100

The manufacturer reserves the right to modify specifications without notice.

Updated on 29/09/2018

Data referred to:

(1) Data referred to Inlet/Outlet water temperature = +15/10 °C 30% etil. Glycol., air temperature 30°C

(2) Inlet/Outlet water temperature = +15/10 °C 30% etil. Glycol.

(3) Inlet/Outlet water temperature = +12/+7°C - Condenser air temperature = +35°C

(4) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers

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

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

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TECHNICAL DATA										
PERFORMANCES		Model	883/F12	893/F14	963/F16	973/F18	983/F20	993/F22	9103/F22	
NOMINAL COOLING CAPACITY (1)	ECO.M2	kW	752	852	990	1121	1306	1439	1534	
		TOTAL NOMINAL ABSORBED POWER (1)	kW	203,92	225,57	273,21	299,90	351,84	400,79	440,99
		EER (1)	kW/kW	3,69	3,78	3,62	3,74	3,71	3,59	3,48
		AIR TEMPERATURE 100% FREE COOLING (2)	°C	0,5	0,5	-0,1	-1,1	-1,6	-1,3	-2,1
NOMINAL COOLING CAPACITY (1)	HE.M2	kW	782	886	1030	1173	1358	1496	1595	
		TOTAL NOMINAL ABSORBED POWER (1)	kW	187,75	207,68	251,54	276,15	323,94	369,01	406,03
		EER (1)	kW/kW	4,17	4,27	4,09	4,25	4,19	4,05	3,93
		AIR TEMPERATURE 100% FREE COOLING (2)	°C	-3,0	-1,4	-2,7	-2,6	-2,9	-2,7	-3,5
NOMINAL COOLING CAPACITY (1)	NE.M2	kW	708	802	925	1055	1230	1355	1454	
		TOTAL NOMINAL ABSORBED POWER (1)	kW	185,09	204,66	243,44	272,17	319,43	363,96	409,68
		EER (1)	kW/kW	3,83	3,92	3,80	3,88	3,85	3,72	3,55
		AIR TEMPERATURE 100% FREE COOLING (2)	°C	1,3	1,3	0,7	-0,4	-0,8	-0,6	-1,5
Standard values for SEPR Calculation, ECO.M2 Configuration (STD)										
COOLING CAPACITY (3)	kW	690	782	909	1028	1198	1320	1408		
TOTAL NOMINAL ABSORBED POWER (3)	kW	216,5	239,4	290,0	318,3	373,6	425,7	468,7		
EER (3)	kW/kW	2,88	2,93	2,83	2,91	2,91	2,82	2,75		
SEPR (HT) (4)		5,41	5,51	5,32	5,28	5,28	5,13	5,03		
HYDRAULIC SECTION										
NOMINAL WATER FLOW	m3/h	119,0	134,8	156,6	177,3	206,6	227,6	242,7		
WATR FLOW RANGE	m3/h	77÷142	88÷170	105÷210	119÷227	148÷250	164÷285	175÷300		
HYDRAULIC CONNECTIONS (FLANGED)	DN	150	200	200	200	200	200	200		
FAN SECTION (AXIAL) RV "fan speed cut-phase regulator" included										
FANS	nr.	12	14	16	18	20	22	22		
MAXIMUM FANS ABSORBED POWER	kW	23,28	27,16	31,04	34,92	38,80	42,68	42,68		
MAXIMUM FANS ABSORBED CURRENT	A	46,80	54,60	62,40	70,20	78,00	85,80	85,80		
TOTAL ELECTRIC DATA IP54 protection rating, chillers suitable for outdoor installation										
MAXIMUM ABSORBED CURRENT (F.L.A) (5)	A	438,8	482,6	622,4	690,2	718,0	805,8	911,8		
MAXIMUM PEAK CURRENT (L.R.A) (5)	A	1185,8	1291,6	1706,4	1822,2	2251,0	2474,8	3018,8		
MAXIMUM PEAK CURRENT WITH M1 CONFIGURATION (L.R.A) (5)	A	1292,8	1353,6	2105,4	2299,2	2788,0	2875,8	3215,8		
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (5) (6)	dB(A)	69,5	70,0	70,8	71,2	71,9	72,6	73,1		
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (5) (6)	dB(A)	67,3	67,9	68,6	69,1	69,6	70,2	70,5		
DIMENSIONS AND WEIGHT										
LENGTH	mm	6900	7850	8800	9750	10700	11650	11650		
WIDTH	mm	2210	2210	2210	2210	2210	2210	2210		
HEIGHT	mm	2450	2450	2450	2450	2450	2450	2450		
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)	kg	6800	7900	8750	9600	10500	11400	11500		

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