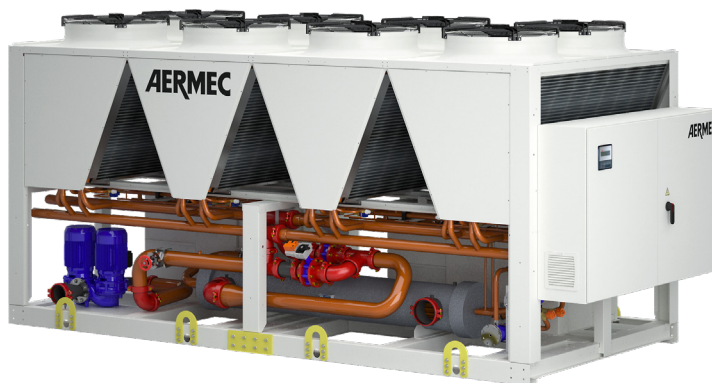


NSM 1402-9603 F

Air-water chiller with free-cooling

Cooling capacity 306 ÷ 2028 kW

- Microchannel coils
- Night mode
- Operation up to 50 °C outdoor air
- High efficiency also at partial loads



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

- A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Electronic expansion valve

Electronic thermostatic as standard from size 5202 to 6402 and from 8403 to 9603.

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side. The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MOD-BUS protocol.

AER485P1 x n° 3: RS-485 interface for supervision systems with MOD-BUS protocol.

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PRV3: Allows you to control the chiller at a distance.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP: Anti-intrusion grid kit

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

KRS: Electric heater for the plate heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
AER485P1 x n° 2 (1)	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Model	Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1 x n° 2 (1)	A,E,N,U	*	*	*	*	*	*	*	*					
AER485P1 x n° 3 (1)	A,E,N,U									*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) * Indicates the quantity of accessories to match.

Antivibration - NSM free - cooling

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Integrated hydronic kit: 00														
A	AVX929	AVX929	AVX929	AVX932	AVX933	AVX933	AVX933	AVX934	AVX937	AVX937	AVX937	AVX938	AVX938	AVX942
E,U	AVX929	AVX929	AVX930	AVX933	AVX933	AVX934	AVX934	AVX935	AVX935	AVX935	AVX935	AVX939	AVX939	AVX940
N	AVX930	AVX930	AVX931	AVX931	AVX934	AVX935	AVX935	AVX936	AVX936	AVX936	AVX936	AVX940	AVX941	AVX943

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00													
A	AVX942	AVX944	AVX944	AVX944	AVX945	AVX947	AVX947	AVX953	AVX953	AVX957	AVX954	AVX956	AVX955
E,U	AVX941	AVX945	AVX947	AVX947	AVX950	AVX952	AVX948	AVX954	AVX956	AVX956	AVX958	-	-
N	AVX943	AVX946	AVX948	AVX949	AVX951	AVX951	AVX951	AVX955	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Anti-intrusion grid

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	GP4V	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V
E,U	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V	GP8V	GP8V	GP9V
N	GP5V	GP5V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP8V	GP8V	GP9V	GP10V	GP11V

A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	GP8V	GP9V	GP9V	GP9V	-	GP11V	GP11V	GP4V+GP8V	GP4V+GP8V	GP9V	GP5V+GP9V	GP5V+GP10V	GP6V+GP11V
E,U	GP10V	GP10V	GP11V	GP11V	GP6V+GP6V	GP6V+GP7V	GP7V+GP7V	GP5V+GP9V	GP5V+GP10V	GP5V+GP10V	GP6V+GP11V	-	-
N	GP11V	GP6V+GP7V	GP7V+GP7V	GP7V+GP8V	GP8V+GP8V	GP8V+GP8V	GP8V	GP6V+GP11V	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Heater exchangers

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	KRS22	KRS22	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24
E,N,U	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24

A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	KRS24	KRS24	KRS23	KRS23	KRS24	KRS24	KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24
E,U	KRS24	KRS24	KRS23	KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	-	-
N	KRS24	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
A	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352Q	RIFNSM2502Q	RIFNSM2652Q	RIFNSM2802C
E	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
N	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802C	RIFNSM2002Q	RIFNSM2202C	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
U	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002C	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C

A grey background indicates the accessory must be assembled in the factory

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
A,E,U	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	RIFNSM4502C	RIFNSM4802C	RIFNSM5202C
N	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	-	-	-

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	RIFNSM5602C	RIFNSM6002C	RIFNSM6402C	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NSM
4,5,6,7	Size (1) 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603
8	Operating field
°	Standard mechanic thermostatic valve (2)
X	Electronic thermostatic valve (3)
Y	Low temperature mechanic thermostatic valve (4)
Z	Low temperature electronic thermostatic valve (4)
9	Model
F	Free-cooling
P	Free-cooling plus (5)
10	Heat recovery
°	Without heat recovery
D	With desuperheater
11	Version
A	High efficiency
E	Silenced high efficiency
N	Silenced very high efficiency
U	Very high efficiency
12	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium
I	Copper-aluminium / Copper-aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
14	Power supply
°	400V ~ 3 50Hz with fuses
2	230V ~ 3 50Hz with fuses (6)
4	230V ~ 3 50Hz with magnet circuit breakers (6)
5	500V ~ 3 50Hz with fuses (7)
8	400V ~ 3 50Hz with magnet circuit breakers
9	500V~3 50Hz with magnet circuit breakers (7)
15,16	Integrated hydronic kit
00	Without hydronic kit
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J (8)
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump (8)
TF	Double pump F (9)
TG	Double pump G (9)
TH	Double pump H (9)
TI	Double pump I (9)
TJ	Double pump J (9)

(1) Electronic thermostatic valve as standard from size 5202÷6402 and 8403÷9603

(2) Water produced from 4 °C ÷ 15 °C

(3) Water produced from 4 °C ÷ 18 °C

(4) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions

(5) The Free-Cooling Plus "P" models are only compatible with "nom ed "0"

(6) available only for size from 1402 to 2202

(7) available only for size from 1402 to 3202

(8) For all configurations including pump J please contact the factory.

(9) The unit from 5603 to 9603 can only have hydronic kit "TF - TG - TH - TI - TJ"

PERFORMANCE SPECIFICATIONS

NSM - A

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Free-cooling															
Cooling performance chiller operation (1)															
Cooling capacity	kW	306,5	350,2	396,8	450,5	505,3	522,5	556,5	600,8	649,8	678,4	726,3	813,3	872,8	954,1
Input power	kW	102,8	117,6	136,7	158,3	168,9	180,5	194,5	203,0	220,4	235,0	252,8	269,7	295,6	317,9
Cooling total input current	A	182,3	206,2	230,6	268,0	291,3	311,4	335,2	351,3	378,4	400,0	426,5	450,9	486,5	530,4
EER	W/W	2,98	2,98	2,90	2,85	2,99	2,90	2,86	2,96	2,95	2,89	2,87	3,02	2,95	3,00
Water flow rate system side	l/h	52654	60163	68174	77407	86812	89765	95621	103224	111642	116561	124785	139737	149958	163932
Pressure drop system side	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61
Cooling performances with free-cooling (2)															
Cooling capacity	kW	347,7	362,0	373,1	381,9	468,1	471,2	476,5	560,7	569,1	573,2	578,8	671,5	677,9	770,2
Input power	kW	15,0	15,0	15,0	15,0	18,7	18,7	18,7	22,5	22,5	22,5	22,5	26,2	26,2	30,0
Free cooling total input current	A	30,4	30,4	30,4	30,4	38,0	38,0	38,0	45,6	45,6	45,6	45,6	53,2	53,2	60,8
EER	W/W	23,18	24,14	24,88	25,47	24,97	25,14	25,42	24,93	25,30	25,48	25,73	25,59	25,83	25,68
Water flow rate system side	l/h	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110	171460
Pressure drop system side	kPa	66	86	85	76	78	84	95	98	107	116	113	87	99	107
Free-cooling plus															
Cooling performance chiller operation (1)															
Cooling capacity	kW	305,8	349,3	395,0	447,3	502,1	519,1	552,6	597,2	645,4	674,3	721,9	807,8	865,0	946,8
Input power	kW	103,7	118,8	138,1	160,2	170,8	182,6	197,0	205,3	223,1	238,4	257,1	273,3	299,3	321,8
Cooling total input current	A	182,3	206,2	230,6	268,0	291,3	311,4	335,2	351,3	378,4	400,0	426,5	450,9	486,5	530,4
EER	W/W	2,95	2,94	2,86	2,79	2,94	2,84	2,81	2,91	2,89	2,83	2,81	2,96	2,89	2,94
Water flow rate system side	l/h	52546	60019	67864	76853	86266	89180	94948	102598	110891	115859	124023	138789	148609	162675
Pressure drop system side	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61
Cooling performances with free-cooling (2)															
Cooling capacity	kW	371,8	388,1	400,1	409,1	501,9	505,2	510,5	601,2	610,0	614,2	619,7	719,2	725,2	824,6
Input power	kW	15,2	15,2	15,2	15,2	19,0	19,0	19,0	22,9	22,9	22,9	22,9	26,7	26,7	30,5
Free cooling total input current	A	30,7	30,7	30,7	30,7	38,4	38,4	38,4	46,1	46,1	46,1	46,1	53,7	53,7	61,4
EER	W/W	24,41	25,48	26,27	26,86	26,36	26,53	26,81	26,31	26,69	26,88	27,12	26,98	27,20	27,07
Water flow rate system side	l/h	52710	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110
Pressure drop system side	kPa	66	86	86	76	79	84	95	98	107	117	114	87	100	108

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

NSM - A

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	996,8	1082,3	1128,3	1167,3	1222,8	1304,9	1346,7	1459,2	1501,9	1659,0	1705,0	1838,1	2028,1
Input power	kW	346,1	365,7	391,9	422,5	438,9	452,7	472,4	492,1	520,2	557,2	583,3	659,0	704,1
Cooling total input current	A	581,4	614,0	654,6	703,8	733,3	761,1	795,9	821,1	872,1	945,1	985,8	1100,0	1197,7
EER	W/W	2,88	2,96	2,88	2,76	2,79	2,88	2,85	2,97	2,89	2,98	2,92	2,79	2,88
Water flow rate system side	l/h	171269	185947	193855	200561	210092	224201	231379	250713	258050	285029	292937	315803	348457
Pressure drop system side	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102
Cooling performances with free-cooling (2)														
Cooling capacity	kW	774,7	867,5	872,2	875,9	966,0	1058,3	1062,8	1158,4	1162,7	1346,7	1351,7	1449,5	1636,8
Input power	kW	30,0	33,7	33,7	33,7	37,5	41,2	41,2	45,0	45,0	52,5	52,5	56,2	63,7
Free cooling total input current	A	60,8	68,4	68,4	68,4	76,0	83,6	83,6	91,2	91,2	106,4	106,4	114,0	129,2
EER	W/W	25,83	25,71	25,85	25,96	25,77	25,66	25,77	25,75	25,85	25,66	25,75	25,78	25,68
Water flow rate system side	l/h	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840	348457
Pressure drop system side	kPa	117	130	141	131	134	145	154	107	117	130	141	134	154
Free-cooling plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	988,7	1074,2	1119,1	1156,4	1212,7	1295,2	1336,2	1447,7	1489,6	1646,9	1691,9	1822,8	2013,1
Input power	kW	350,6	370,3	397,1	428,3	444,3	458,0	478,2	498,2	527,1	564,0	590,8	667,0	712,4
Cooling total input current	A	581,4	614,0	654,6	703,8	733,3	761,1	795,9	821,1	872,1	945,1	985,8	1100,0	1197,7
EER	W/W	2,82	2,90	2,82	2,70	2,73	2,83	2,79	2,91	2,83	2,92	2,86	2,73	2,83
Water flow rate system side	l/h	169873	184553	192278	198678	208362	222522	229577	248739	255936	282961	290686	313186	345875
Pressure drop system side	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102
Cooling performances with free-cooling (2)														
Cooling capacity	kW	828,9	928,7	933,1	936,5	1033,8	1133,1	1137,4	1239,8	1243,9	1442,0	1446,8	1551,1	1752,4
Input power	kW	30,5	34,3	34,3	34,3	38,1	41,9	41,9	45,7	45,7	53,3	53,3	57,1	64,7
Free cooling total input current	A	61,4	69,1	69,1	69,1	76,8	84,5	84,5	92,1	92,1	107,5	107,5	115,2	130,5
EER	W/W	27,21	27,09	27,22	27,32	27,15	27,05	27,15	27,13	27,22	27,04	27,13	27,15	27,07
Water flow rate system side	l/h	171460	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840
Pressure drop system side	kPa	117	130	141	131	134	146	155	108	117	130	141	134	155

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

NSM - E

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Free-cooling															
Cooling performance chiller operation (1)															
Cooling capacity	kW	319,8	365,8	417,7	473,0	509,1	549,8	568,8	618,6	646,3	675,1	715,5	796,7	851,7	929,6
Input power	kW	105,5	123,3	137,5	159,4	178,3	183,3	195,5	205,2	220,4	235,9	253,5	270,8	297,1	320,1
Cooling total input current	A	177,3	205,7	223,1	261,0	294,5	304,8	325,9	341,6	365,4	388,5	414,7	437,5	474,1	516,8
EER	W/W	3,03	2,97	3,04	2,97	2,85	3,00	2,91	3,01	2,93	2,86	2,82	2,94	2,87	2,90
Water flow rate system side	l/h	54946	62848	71763	81260	87462	94455	97732	106280	111041	115993	122937	136886	146332	159723
Pressure drop system side	kPa	33	37	32	37	43	50	54	53	58	64	64	43	49	60
Cooling performances with free-cooling (2)															
Cooling capacity	kW	308,8	317,5	389,9	399,1	403,2	476,4	479,1	552,1	556,5	560,4	564,7	643,3	648,3	727,0
Input power	kW	11,0	11,0	13,7	13,7	13,7	16,5	16,5	19,2	19,2	19,2	19,2	22,0	22,0	24,7
Free cooling total input current	A	15,9	15,9	19,9	19,9	19,9	23,9	23,9	27,9	27,9	27,9	27,9	31,8	31,8	35,8
EER	W/W	28,07	28,87	28,36	29,03	29,33	28,88	29,04	28,69	28,91	29,11	29,34	29,25	29,47	29,38
Water flow rate system side	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
Pressure drop system side	kPa	56	67	56	68	78	80	85	82	90	98	102	77	88	97

Free-cooling plus**Cooling performance chiller operation (1)**

Cooling capacity	kW	316,7	363,1	414,5	469,5	504,1	545,4	564,0	613,8	640,8	669,8	710,9	790,6	843,5	921,3
Input power	kW	106,6	124,7	138,6	161,1	181,0	185,4	197,8	207,6	223,1	239,2	257,8	274,6	301,1	324,4
Cooling total input current	A	177,3	205,7	223,1	261,0	294,5	304,8	325,9	341,6	365,4	388,5	414,7	437,5	474,1	516,8
EER	W/W	2,97	2,91	2,99	2,91	2,79	2,94	2,85	2,96	2,87	2,80	2,76	2,88	2,80	2,84
Water flow rate system side	l/h	54406	62391	71215	80666	86616	93710	96909	105464	110105	115087	122135	135840	144915	158291
Pressure drop system side	kPa	33	37	32	37	43	50	54	54	59	64	65	43	49	60

Cooling performances with free-cooling (2)

Cooling capacity	kW	328,8	338,7	415,7	425,8	429,8	508,2	511,0	589,0	593,7	597,7	602,1	686,0	690,6	774,8
Input power	kW	11,2	11,2	13,9	13,9	13,9	16,7	16,7	19,5	19,5	19,5	19,5	22,3	22,3	25,1
Free cooling total input current	A	16,1	16,1	20,1	20,1	20,1	24,1	24,1	28,1	28,1	28,1	28,1	32,2	32,2	36,2
EER	W/W	29,48	30,36	29,81	30,53	30,82	30,37	30,54	30,17	30,41	30,62	30,84	30,75	30,95	30,87
Water flow rate system side	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
Pressure drop system side	kPa	57	67	57	68	78	80	86	83	90	98	103	77	88	98

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

NSM - E

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	995,2	1051,6	1137,0	1159,2	1217,3	1279,4	1341,6	1434,0	1499,6	1598,6	1684,0	-	-
Input power	kW	339,9	370,0	389,4	418,0	436,6	448,9	461,2	491,1	510,9	568,9	588,3	-	-
Cooling total input current	A	554,8	601,5	631,6	677,8	708,4	731,9	755,4	803,9	832,3	923,9	945,4	-	-
EER	W/W	2,93	2,84	2,92	2,77	2,79	2,85	2,91	2,92	2,93	2,81	2,86	-	-
Water flow rate system side	l/h	170980	180685	195353	199172	209139	219823	230507	246385	257643	274665	289333	-	-
Pressure drop system side	kPa	68	79	73	76	67	72	82	60	68	79	73	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	804,0	809,4	888,6	890,5	967,2	1043,7	1119,7	1129,8	1206,8	1215,8	1295,1	-	-
Input power	kW	27,5	27,5	30,2	30,2	33,0	35,7	38,5	38,5	41,2	41,2	44,0	-	-
Free cooling total input current	A	39,8	39,8	43,8	43,8	47,8	51,7	55,7	55,7	59,7	59,7	63,7	-	-
EER	W/W	29,24	29,44	29,38	29,44	29,31	29,20	29,09	29,35	29,26	29,48	29,44	-	-
Water flow rate system side	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650	-	-
Pressure drop system side	kPa	104	119	113	117	107	110	119	97	104	119	113	-	-
Free-cooling plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	987,5	1041,9	1127,1	1148,0	1206,7	1269,3	1332,0	1421,7	1487,9	1583,2	1668,4	-	-
Input power	kW	344,2	375,3	394,8	424,0	442,2	454,4	466,6	497,6	517,4	577,4	596,8	-	-
Cooling total input current	A	554,8	601,5	631,6	677,8	708,4	731,9	755,4	803,9	832,3	923,9	945,4	-	-
EER	W/W	2,87	2,78	2,86	2,71	2,73	2,79	2,85	2,86	2,88	2,74	2,80	-	-
Water flow rate system side	l/h	169667	179011	193652	197235	207320	218083	228845	244269	255645	272005	286645	-	-
Pressure drop system side	kPa	69	80	74	76	68	72	82	60	69	80	74	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	857,5	862,4	947,1	948,8	1031,1	1113,1	1194,5	1204,3	1286,9	1295,0	1379,9	-	-
Input power	kW	27,9	27,9	30,7	30,7	33,5	36,3	39,0	39,0	41,8	41,8	44,6	-	-
Free cooling total input current	A	40,2	40,2	44,2	44,2	48,2	52,3	56,3	56,3	60,3	60,3	64,3	-	-
EER	W/W	30,74	30,92	30,87	30,92	30,81	30,70	30,59	30,84	30,76	30,95	30,92	-	-
Water flow rate system side	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650	-	-
Pressure drop system side	kPa	105	119	113	117	107	111	120	98	105	119	113	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

NSM - U

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Free-cooling															
Cooling performance chiller operation (1)															
Cooling capacity	kW	328,1	378,5	429,3	491,9	531,3	568,6	589,0	638,0	667,8	695,1	735,8	824,8	891,0	967,9
Input power	kW	105,3	121,3	136,2	155,8	172,9	180,0	191,0	202,4	216,1	228,4	242,4	263,0	288,2	311,5
Cooling total input current	A	185,8	211,5	232,0	266,3	297,1	312,9	332,3	352,6	374,2	392,3	413,0	442,7	477,2	522,6
EER	W/W	3,12	3,12	3,15	3,16	3,07	3,16	3,08	3,15	3,09	3,04	3,04	3,14	3,09	3,11
Water flow rate system side	l/h	56372	65027	73755	84508	91287	97691	101204	109611	114731	119418	126414	141715	153088	166304
Pressure drop system side	kPa	35	39	34	40	46	53	57	57	62	68	68	46	53	65
Cooling performances with free-cooling (2)															
Cooling capacity	kW	356,2	369,9	451,2	466,4	473,4	555,1	559,4	641,6	648,6	654,2	661,5	753,3	763,5	854,0
Input power	kW	15,0	15,0	18,7	18,7	18,7	22,5	22,5	26,2	26,2	26,2	26,2	30,0	30,0	33,7
Free cooling total input current	A	30,4	30,4	38,0	38,0	38,0	45,6	45,6	53,2	53,2	53,2	53,2	60,8	60,8	68,4
EER	W/W	23,76	24,67	24,07	24,88	25,26	24,68	24,87	24,45	24,71	24,93	25,21	25,12	25,46	25,31
Water flow rate system side	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
Pressure drop system side	kPa	59	71	60	73	85	85	92	88	96	104	108	82	96	105

Free-cooling plus

Cooling performance chiller operation (1)

Cooling capacity	kW	326,9	376,7	427,6	488,8	527,6	565,4	585,6	634,6	664,0	691,7	732,5	820,3	884,7	961,8
Input power	kW	106,3	122,5	137,6	157,4	174,8	181,8	193,0	204,4	218,3	231,1	245,7	266,0	291,3	314,8
Cooling total input current	A	185,8	211,5	232,0	266,3	297,1	312,9	332,3	352,6	374,2	392,3	413,0	442,7	477,2	522,6
EER	W/W	3,08	3,07	3,11	3,10	3,02	3,11	3,03	3,10	3,04	2,99	2,98	3,08	3,04	3,06
Water flow rate system side	l/h	56168	64715	73458	83974	90642	97138	100613	109029	114089	118834	125850	140933	152002	165249
Pressure drop system side	kPa	35	40	34	40	47	54	58	57	63	68	69	46	54	65

Cooling performances with free-cooling (2)

Cooling capacity	kW	381,5	396,7	483,5	500,0	507,4	595,1	599,9	687,8	695,4	701,6	709,4	807,7	818,0	915,4
Input power	kW	15,2	15,2	19,0	19,0	19,0	22,9	22,9	26,7	26,7	26,7	26,7	30,5	30,5	34,3
Free cooling total input current	A	30,7	30,7	38,4	38,4	38,4	46,1	46,1	53,7	53,7	53,7	53,7	61,4	61,4	69,1
EER	W/W	25,04	26,04	25,39	26,26	26,65	26,05	26,25	25,80	26,09	26,32	26,61	26,51	26,85	26,71
Water flow rate system side	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
Pressure drop system side	kPa	60	72	60	74	85	86	92	88	96	104	109	83	96	106

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

NSM - U

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1031,1	1095,0	1181,2	1208,8	1265,8	1326,2	1386,6	1491,1	1554,3	1666,6	1752,7	-	-
Input power	kW	332,0	358,4	379,0	405,3	426,4	440,0	453,5	478,4	498,9	549,8	570,4	-	-
Cooling total input current	A	564,1	604,8	638,6	681,5	718,3	746,0	773,7	811,6	846,2	926,2	954,2	-	-
EER	W/W	3,11	3,06	3,12	2,98	2,97	3,01	3,06	3,12	3,12	3,03	3,07	-	-
Water flow rate system side	l/h	177155	188137	202935	207692	217477	227858	238239	256194	267046	286336	301135	-	-
Pressure drop system side	kPa	74	86	79	83	73	77	87	64	74	86	79	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	941,7	951,8	1043,5	1047,6	1134,8	1221,6	1307,8	1326,2	1413,8	1431,0	1522,9	-	-
Input power	kW	37,5	37,5	41,2	41,2	45,0	48,7	52,5	52,5	56,2	56,2	60,0	-	-
Free cooling total input current	A	76,0	76,0	83,6	83,6	91,2	98,8	106,4	106,4	114,0	114,0	121,6	-	-
EER	W/W	25,12	25,39	25,30	25,40	25,22	25,07	24,92	25,27	25,14	25,45	25,39	-	-
Water flow rate system side	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470	-	-
Pressure drop system side	kPa	112	129	122	127	115	119	128	105	112	129	122	-	-

Free-cooling plus

Cooling performance chiller operation (1)

Cooling capacity	kW	1025,3	1088,1	1174,0	1200,9	1257,9	1318,5	1379,2	1482,0	1545,4	1655,7	1741,6	-	-
Input power	kW	335,5	362,4	383,1	409,7	430,7	444,3	457,9	483,4	504,1	556,1	576,8	-	-
Cooling total input current	A	564,1	604,8	638,6	681,5	718,3	746,0	773,7	811,6	846,2	926,2	954,2	-	-
EER	W/W	3,06	3,00	3,06	2,93	2,92	2,97	3,01	3,07	3,07	2,98	3,02	-	-
Water flow rate system side	l/h	176150	186945	201699	206322	216119	226541	236963	254617	265517	284475	299229	-	-
Pressure drop system side	kPa	74	86	79	83	73	78	88	65	74	86	80	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	1009,7	1020,0	1118,5	1122,6	1216,5	1309,9	1402,4	1421,6	1515,9	1533,4	1632,1	-	-
Input power	kW	38,1	38,1	41,9	41,9	45,7	49,5	53,3	53,3	57,1	57,1	60,9	-	-
Free cooling total input current	A	76,8	76,8	84,5	84,5	92,1	99,8	107,5	107,5	115,2	115,2	122,8	-	-
EER	W/W	26,51	26,78	26,70	26,80	26,62	26,46	26,30	26,66	26,54	26,84	26,78	-	-
Water flow rate system side	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470	-	-
Pressure drop system side	kPa	113	129	122	128	116	119	128	106	113	130	123	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

NSM - N

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Free-cooling															
Cooling performance chiller operation (1)															
Cooling capacity	kW	326,0	376,5	424,5	486,3	525,3	559,6	579,7	626,1	655,1	682,6	723,4	811,7	888,8	960,7
Input power	kW	103,6	119,3	134,4	153,8	170,9	178,3	189,4	200,8	214,8	227,9	242,9	263,8	283,0	307,1
Cooling total input current	A	174,8	199,9	218,4	252,6	283,3	297,4	316,9	335,2	357,1	376,5	398,7	426,6	452,0	496,6
EER	W/W	3,15	3,16	3,16	3,16	3,07	3,14	3,06	3,12	3,05	3,00	2,98	3,08	3,14	3,13
Water flow rate system side	l/h	56017	64687	72926	83554	90260	96150	99597	107568	112546	117285	124287	139460	152703	165051
Pressure drop system side	kPa	34	39	33	39	45	52	55	55	60	65	66	44	53	64
Cooling performances with free-cooling (2)															
Cooling capacity	kW	365,1	381,0	449,3	465,6	473,2	541,5	545,8	615,7	622,3	627,8	634,7	713,7	791,0	867,2
Input power	kW	13,7	13,7	16,5	16,5	16,5	19,2	19,2	22,0	22,0	22,0	22,0	24,7	27,5	30,2
Free cooling total input current	A	19,9	19,9	23,9	23,9	23,9	27,9	27,9	31,8	31,8	31,8	31,8	35,8	39,8	43,8
EER	W/W	26,56	27,71	27,24	28,22	28,69	28,13	28,36	27,99	28,29	28,54	28,86	28,84	28,77	28,67
Water flow rate system side	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Pressure drop system side	kPa	51	61	51	63	73	76	82	79	87	94	98	74	83	93

Free-cooling plus

Cooling performance chiller operation (1)

Cooling capacity	kW	325,1	375,2	422,9	483,6	522,0	556,8	576,7	623,1	651,8	679,6	720,3	807,0	882,8	955,1
Input power	kW	104,5	120,4	135,6	155,5	172,9	180,2	191,5	202,9	217,2	230,8	246,4	267,1	286,2	310,3
Cooling total input current	A	174,8	199,9	218,4	252,6	283,3	297,4	316,9	335,2	357,1	376,5	398,7	426,6	452,0	496,6
EER	W/W	3,11	3,12	3,12	3,11	3,02	3,09	3,01	3,07	3,00	2,94	2,92	3,02	3,09	3,08
Water flow rate system side	l/h	55859	64457	72661	83082	89692	95662	99076	107055	111979	116764	123749	138653	151682	164102
Pressure drop system side	kPa	35	39	33	39	46	52	56	55	61	66	67	45	54	64

Cooling performances with free-cooling (2)

Cooling capacity	kW	387,5	406,1	478,1	496,6	505,0	577,5	582,4	656,5	663,9	670,1	677,6	761,7	844,0	925,5
Input power	kW	13,9	13,9	16,7	16,7	16,7	19,5	19,5	22,3	22,3	22,3	22,3	25,1	27,9	30,7
Free cooling total input current	A	20,1	20,1	24,1	24,1	24,1	28,1	28,1	32,2	32,2	32,2	32,2	36,2	40,2	44,2
EER	W/W	27,79	29,12	28,57	29,68	30,18	29,58	29,83	29,42	29,75	30,03	30,37	30,35	30,26	30,16
Water flow rate system side	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Pressure drop system side	kPa	52	62	52	64	74	77	82	80	87	94	99	75	83	94

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

NSM - N

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1004,9	1098,6	1161,7	1218,0	1274,5	1318,1	1361,6	1478,4	-	-	-	-	-
Input power	kW	332,9	349,5	369,2	392,7	416,2	433,5	450,9	472,0	-	-	-	-	-
Cooling total input current	A	544,1	569,7	600,1	638,5	677,0	708,3	739,7	770,6	-	-	-	-	-
EER	W/W	3,02	3,14	3,15	3,10	3,06	3,04	3,02	3,13	-	-	-	-	-
Water flow rate system side	l/h	172652	188754	199587	209274	218966	226457	233947	254013	-	-	-	-	-
Pressure drop system side	kPa	70	71	84	88	74	78	85	64	-	-	-	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	874,3	1018,1	1092,1	1164,5	1236,6	1246,2	1254,9	1339,1	-	-	-	-	-
Input power	kW	30,2	35,7	38,5	41,2	44,0	44,0	44,0	46,7	-	-	-	-	-
Free cooling total input current	A	43,8	51,7	55,7	59,7	63,7	63,7	63,7	67,7	-	-	-	-	-
EER	W/W	28,91	28,48	28,37	28,24	28,11	28,33	28,52	28,65	-	-	-	-	-
Water flow rate system side	l/h	172840	188960	199810	209510	219210	226710	234210	254300	-	-	-	-	-
Pressure drop system side	kPa	102	100	114	117	103	109	118	93	-	-	-	-	-

Free-cooling plus

Cooling performance chiller operation (1)

Cooling capacity	kW	998,8	1092,7	1155,6	1211,7	1267,7	1310,9	1354,2	1470,0	-	-	-	-	-
Input power	kW	336,7	353,2	373,0	396,5	420,0	437,6	455,3	476,9	-	-	-	-	-
Cooling total input current	A	544,1	569,7	600,1	638,5	677,0	708,3	739,7	770,6	-	-	-	-	-
EER	W/W	2,97	3,09	3,10	3,06	3,02	3,00	2,97	3,08	-	-	-	-	-
Water flow rate system side	l/h	171604	187733	198553	208183	217806	225235	232663	252555	-	-	-	-	-
Pressure drop system side	kPa	70	71	85	89	75	78	85	64	-	-	-	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	933,0	1086,4	1165,3	1242,2	1318,7	1329,5	1339,1	1429,1	-	-	-	-	-
Input power	kW	30,7	36,3	39,0	41,8	44,6	44,6	44,6	47,4	-	-	-	-	-
Free cooling total input current	A	44,2	52,3	56,3	60,3	64,3	64,3	64,3	68,3	-	-	-	-	-
EER	W/W	30,41	29,96	29,84	29,69	29,55	29,79	30,01	30,14	-	-	-	-	-
Water flow rate system side	l/h	172840	188960	199810	209510	219210	226710	234210	254300	-	-	-	-	-
Pressure drop system side	kPa	102	101	114	118	104	109	118	94	-	-	-	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C; External air 2 °C

ENERGY DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Free-cooling																
Energy index																
SEPR	A	W/W	7,39	7,02	6,63	6,27	6,76	6,50	6,32	6,71	6,54	6,28	6,08	6,53	6,31	6,48
	E	W/W	7,20	6,76	7,09	6,63	6,28	6,87	6,57	6,79	6,67	6,40	6,07	6,26	6,21	6,42
	N	W/W	7,66	7,34	7,54	7,18	6,76	7,08	6,92	7,13	6,88	6,65	6,43	6,76	6,92	6,90
	U	W/W	7,48	7,12	7,45	7,11	6,77	7,20	6,95	7,26	7,00	6,80	6,59	6,96	6,73	6,84
Free-cooling plus																
Energy index																
SEPR	A	W/W	7,37	7,09	6,64	6,24	6,77	6,48	6,26	6,68	6,47	6,21	5,97	6,49	6,24	6,41
	E	W/W	7,24	6,71	7,14	6,59	6,19	6,81	6,49	6,82	6,59	6,29	5,97	6,44	6,20	6,32
	N	W/W	7,70	7,37	7,61	7,21	6,81	7,16	6,89	7,14	6,86	6,61	6,37	6,73	6,88	6,86
	U	W/W	7,55	7,15	7,54	7,14	6,75	7,21	6,95	7,27	7,00	6,76	6,53	6,95	6,69	6,79
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Free-cooling																
Energy index																
SEPR	A	W/W	6,16	6,38	6,15	5,85	6,01	6,21	6,10	6,58	6,36	6,67	6,49	6,16	6,41	
	E	W/W	6,50	6,19	6,41	5,96	6,00	6,16	6,47	6,70	6,81	6,19	6,44	-	-	
	N	W/W	6,63	6,78	6,89	7,00	6,93	6,71	6,69	7,26	-	-	-	-	-	
	U	W/W	6,90	6,51	6,82	6,49	6,51	6,66	6,80	7,14	7,19	6,84	6,97	-	-	
Free-cooling plus																
Energy index																
SEPR	A	W/W	6,07	6,28	6,03	5,73	5,92	6,11	5,98	6,54	6,30	6,61	6,42	6,10	6,34	
	E	W/W	6,41	6,06	6,29	5,84	5,92	6,08	6,37	6,64	6,76	6,09	6,34	-	-	
	N	W/W	6,57	6,90	6,84	6,96	6,92	6,78	6,65	7,23	-	-	-	-	-	
	U	W/W	6,86	6,60	6,76	6,42	6,48	6,63	6,77	7,12	7,16	6,80	6,93	-	-	

ELECTRIC DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electric data																
Maximum current (FLA)	A	A	243,9	271,9	299,1	332,5	374,4	395,7	417,0	450,2	474,9	474,9	474,9	531,4	579,4	635,9
	E,U	A	243,9	271,9	307,6	341,0	374,4	404,2	425,5	458,7	483,4	483,4	483,4	539,9	587,9	644,4
	N	A	252,4	280,4	316,1	349,5	382,9	412,7	434,0	467,2	491,9	491,9	491,9	548,4	604,9	667,2
Peak current (LRA)	A	A	265,5	307,3	350,2	388,2	419,8	466,8	484,0	519,5	529,4	529,4	529,4	661,9	701,8	831,3
	E,U	A	265,5	307,3	358,7	396,7	419,8	475,3	492,5	528,0	537,9	537,9	537,9	670,4	710,3	839,8
	N	A	274,0	315,8	367,2	405,2	428,3	483,8	501,0	536,5	546,4	546,4	546,4	678,9	727,3	862,6
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Electric data																
Maximum current (FLA)	A	A	683,9	731,4	770,4	813,4	864,9	913,2	947,2	980,7	1028,7	1123,7	1162,7	1300,2	1419,2	
	E,U	A	700,9	739,9	793,2	836,2	887,7	930,2	972,7	997,7	1054,2	1132,2	1179,7	-	-	
	N	A	715,2	771,2	818,7	870,2	921,7	955,7	989,7	1023,2	-	-	-	-	-	
Peak current (LRA)	A	A	858,2	930,7	953,4	1108,4	1163,9	1290,2	1287,2	1069,4	1096,3	1200,0	1222,7	1480,2	1603,2	
	E,U	A	875,2	939,2	976,2	1131,2	1186,7	1307,2	1312,7	1086,4	1121,8	1208,5	1239,7	-	-	
	N	A	889,5	970,5	1001,7	1165,2	1220,7	1332,7	1329,7	1111,9	-	-	-	-	-	

GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Compressor																
Type	A,E,N,U	type	screw													
Compressor regulation	A,E,N,U	Type	On-Off													
Number	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R134a													
Refrigerant charge	A	kg	64,0	64,0	64,0	64,0	80,0	80,0	80,0	96,0	96,0	101,0	106,0	117,0	112,0	128,0
	E,U	kg	64,0	64,0	80,0	80,0	80,0	96,0	96,0	112,0	112,0	117,0	122,0	133,0	128,0	144,0
	N	kg	80,0	80,0	96,0	96,0	96,0	112,0	112,0	128,0	128,0	133,0	138,0	149,0	160,0	176,0
System side heat exchanger																
Type	A,E,N,U	type	Shell and tube													
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																
Connections (in/out)	A,E,N,U	Type	G.s.													

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Compressor															
Type	A	type								screw					
	E,U	type	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	-	-
	N	type	screw	screw	screw	screw	screw	screw	screw	screw	screw	-	-	-	-
Compressor regulation	A	Type								On-Off					
	E,U	Type	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	-	-
	N	Type	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	-	-	-	-	-
Number	A	no.	2	2	2	2	2	2	3	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Circuits	A	no.	2	2	2	2	2	2	3	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Refrigerant	A	type								R134a					
	E,U	type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	-	-
	N	type	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	-	-	-	-	-
Refrigerant charge	A	kg	128,0	144,0	144,0	144,0	160,0	176,0	176,0	192,0	192,0	224,0	224,0	240,0	272,0
	E,U	kg	160,0	160,0	176,0	176,0	192,0	208,0	224,0	224,0	240,0	240,0	256,0	-	-
	N	kg	176,0	208,0	224,0	240,0	256,0	256,0	256,0	272,0	-	-	-	-	-
System side heat exchanger															
Type	A	type								Shell and tube					
	E,U	type	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	-	-
	N	type	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	-	-	-	-	-
Number	A	no.	1	1	1	1	1	1	1	2	2	2	2	2	2
	E,U	no.	1	1	1	1	2	2	2	2	2	2	2	-	-
	N	no.	1	2	2	2	2	2	2	2	-	-	-	-	-
Hydraulic connections															
Connections (in/out)	A	Type								G.s.					
	E,U	Type	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	-	-
	N	Type	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.	-	-	-	-	-

G.s. = Grooved joints

SOUND DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Sound data calculated in cooling mode (1)																
Sound power level	A	dB(A)	98,0	98,0	98,0	98,0	99,0	99,0	99,0	99,7	99,7	99,7	99,7	100,4	100,4	101,1
	E	dB(A)	91,0	91,0	91,7	91,9	92,1	92,6	92,5	93,0	93,0	93,0	93,0	93,7	93,9	94,6
	N	dB(A)	91,7	91,7	92,3	92,5	92,6	93,1	93,0	93,5	93,5	93,5	93,5	94,1	94,6	95,2
	U	dB(A)	98,0	98,0	98,9	99,0	99,0	99,7	99,7	100,4	100,4	100,4	100,4	100,9	101,0	101,5
Sound pressure level (10 m)	A	dB(A)	65,6	65,6	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,1	67,1	67,6	67,7	68,2
	E	dB(A)	58,6	58,6	59,2	59,4	59,5	59,9	59,9	60,3	60,3	60,3	60,3	60,8	61,0	61,6
	N	dB(A)	59,2	59,2	59,7	59,9	60,0	60,3	60,3	60,6	60,6	60,6	60,6	61,1	61,5	62,0
	U	dB(A)	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,6	67,6	67,6	67,6	68,1	68,1	68,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

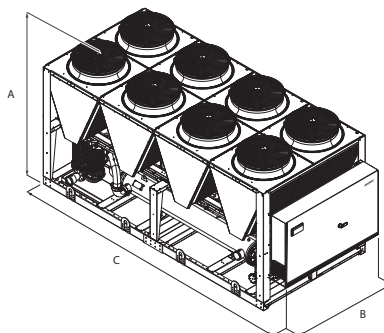
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Sound data calculated in cooling mode (1)															
Sound power level	A	dB(A)	101,1	101,6	101,6	101,6	102,1	102,5	102,5	102,7	102,8	103,4	103,4	103,7	104,2
	E	dB(A)	95,2	95,2	95,4	95,6	96,0	96,2	96,4	96,0	96,5	96,4	96,6	-	-
	N	dB(A)	95,5	96,0	96,2	96,6	96,9	96,9	96,9	96,7	-	-	-	-	-
	U	dB(A)	102,0	102,0	102,4	102,4	102,8	103,1	103,4	103,4	103,7	103,7	103,9	-	-
Sound pressure level (10 m)	A	dB(A)	68,2	68,6	68,6	68,6	69,0	69,2	69,2	69,4	69,4	69,8	69,8	70,0	70,4
	E	dB(A)	62,1	62,0	62,2	62,3	62,7	62,8	62,9	62,5	62,8	62,8	62,8	-	-
	N	dB(A)	62,3	62,5	62,6	62,9	63,1	63,1	63,1	62,8	-	-	-	-	-
	U	dB(A)	68,9	68,9	69,1	69,2	69,5	69,7	69,9	69,8	70,0	70,0	70,2	-	-

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

FANS DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Free-cooling																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m³/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
	E	m³/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
	N	m³/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
	U	m³/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
Free-cooling plus																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m³/h	109600	109600	109600	109600	137000	137000	137000	164400	164400	164400	164400	191800	191800	219200
	E	m³/h	85600	85600	107000	107000	107000	128400	128400	149800	149800	149800	149800	171200	171200	192600
	N	m³/h	107000	107000	128400	128400	128400	149800	149800	171200	171200	171200	171200	192600	214000	235400
	U	m³/h	109600	109600	137000	137000	137000	164400	164400	191800	191800	191800	191800	219200	219200	246600
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Free-cooling																
Fan																
Type	A	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
	E,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	-	-
	N	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	-	-	-	-	-
Number	A	no.	16	18	18	18	20	22	22	24	24	24	28	28	30	34
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	32	-	-
	N	no.	22	26	28	30	32	32	32	34	34	-	-	-	-	-
Air flow rate	A	m³/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	348000	406000	406000	435000	493000
	E	m³/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	336000	358400	-	-
	N	m³/h	246400	291200	313600	336000	358400	358400	358400	380800	-	-	-	-	-	-
	U	m³/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000	-	-	-
Free-cooling plus																
Fan																
Type	A	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
	E,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	-	-
	N	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	-	-	-	-	-
Number	A	no.	16	18	18	18	20	22	22	24	24	24	28	28	30	34
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	32	-	-
	N	no.	22	26	28	30	32	32	32	34	34	-	-	-	-	-
Air flow rate	A	m³/h	219200	246600	246600	246600	274000	301400	301400	328800	328800	328800	383600	383600	411000	465800
	E	m³/h	214000	214000	235400	235400	256800	278200	299600	299600	321000	321000	321000	342400	-	-
	N	m³/h	235400	278200	299600	321000	342400	342400	342400	363800	-	-	-	-	-	-
	U	m³/h	274000	274000	301400	301400	328800	356200	383600	383600	411000	411000	411000	438400	-	-

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Dimensions and weights																
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	B	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	A	mm	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330	9520
C	E,U	mm	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520	10710
	N	mm	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900	13090
	A	kg	4695	4730	4870	5200	6065	6080	6285	6950	7145	7200	7300	8500	8975	9590
Weight empty	E,U	kg	4855	4875	5435	6025	6380	7025	7045	7625	7715	7785	7880	9145	9605	10475
	N	kg	5370	5390	6065	6655	7010	7560	7585	8175	8265	8340	8430	9930	10905	11630
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Dimensions and weights																
A	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	-	-
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-	-	-	-
B	A	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	-	-
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-	-	-	-
C	A	mm	9520	10710	10710	10710	11900	13090	13090	14280	14280	16660	16660	17850	20230	
	E,U	mm	11900	11900	13090	13090	14280	15470	16660	16660	17850	17850	19040	-	-	
	N	mm	13090	15470	16660	17850	19040	19040	19040	20230	-	-	-	-	-	
Weight empty	A	kg	9655	10475	10525	10945	11580	12265	12305	14815	14880	16240	16290	17510	18895	
	E,U	kg	11070	11130	12135	12260	13260	13800	14340	16230	16825	16940	17955	-	-	
	N	ka	11700	13205	13990	14725	15460	15505	15550	18085	-	-	-	-	-	

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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