

NRB 0800-3600 F

Air-water chiller with free-cooling

Cooling capacity 211 ÷ 1010 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. Outdoor units with scroll compressors, axial flow fans, micro-channel coil (source side), plate heat exchanger and thermostatic expansion valve (mechanical or electronic, depending on the model). The base the 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.

Dual-circuit unit

Unit with 2 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 1800÷3600.

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 allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.

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: RS-485 interface for supervision systems with MODBUS 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.

FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FB1	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1070	AVX1070	AVX1070	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1057	AVX1057	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1071	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: AH, AI																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: BA, BB, BC, BD																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1071	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: BE, BF, BG																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: BH, BI																	
A	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1078	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: DA, DB, DC, DD																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: DE, DF, DG																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1055	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064
Integrated hydronic kit: DH, DI																	
A	AVX1067	AVX1067	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1079	AVX1076	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1055	AVX1055	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1076	AVX1076	AVX1076	AVX1052	AVX1077	AVX1055	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064
Integrated hydronic kit: PA, PB, PC, PD, PE, PF, PG																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: PH, PI																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1055	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064

FL: Flow switch.

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.

PGD1: Allows you to control the unit at a distance.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

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

GP: Anti-intrusion grid kit

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

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

Units 0800A and 0900A with the optional "storage tank" are 3970 mm long and must have the GP2VNA grids installed.

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
A	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1601	RIFNRB1800	RIFNRB2000
E,U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000

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

Ver	2200	2400	2600	2800	3000	3200	3400	3600
A,E,N,U	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

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

CONFIGURATOR

Field	Description
1,2,3	NRB
4,5,6,7	Size (1) 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600
8	Operating field
°	Standard mechanic thermostatic valve (2)
X	Electronic thermostatic valve
Y	Low temperature mechanic thermostatic valve
Z	Low temperature electronic thermostatic valve
9	Model
F	Free-cooling
P	Free-cooling plus (3)
10	Heat recovery
°	Without heat recovery
D	With desuperheater (4)
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
°	400 V/3/50 Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with n° 1 pump
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
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump

Field	Description
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
	Kit with storage tank and n° 1 pump
AA	Storage tank and pump A
AB	Storage tank and pump B
AC	Storage tank and pump C
AD	Storage tank and pump D
AE	Storage tank and pump E
AF	Storage tank and pump F
AG	Storage tank and pump G
AH	Storage tank and pump H
AI	Storage tank and pump I
AJ	Storage tank and pump J
	Kit with storage tank and n° 1 pump + stand-by pump (5)
BA	Storage tank with pump A + stand-by pump
BB	Storage tank with pump B + stand-by pump
BC	Storage tank with pump C + stand-by pump
BD	Storage tank with pump D + stand-by pump
BE	Storage tank with pump E + stand-by pump
BF	Storage tank with pump F + stand-by pump
BG	Storage tank with pump G + stand-by pump
BH	Storage tank with pump H + stand-by pump
BI	Storage tank with pump I + stand-by pump
BJ	Storage tank with pump J + stand-by pump

(1) Electronic thermostatic as standard from size 1800÷3600.

(2) Water produced from 4 °C ÷ 18 °C

(3) Free cooling Plus models "P" are compatible only with "om" and "O" coils.

(4) The temperature of the water in the heat exchanger inlet must never drop below 35 °C.

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

PERFORMANCE SPECIFICATIONS

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Free-cooling																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	211,8	234,3	273,4	307,1	335,9	373,3	432,0	474,2	542,2	584,4	655,6	720,2	759,5	803,3	878,1	922,4	962,2
Input power	kW	76,0	88,0	93,9	108,9	124,8	145,6	157,1	185,1	201,0	229,4	243,7	259,3	280,1	307,8	321,2	348,2	374,6
Cooling total input current	A	134,0	152,0	165,0	189,0	215,0	248,0	270,0	316,0	347,0	394,0	423,0	450,0	483,0	529,0	557,0	602,0	646,0
EER	W/W	2,79	2,66	2,91	2,82	2,69	2,56	2,75	2,56	2,70	2,55	2,69	2,78	2,71	2,61	2,73	2,65	2,57
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635	123735	130494	138018	150865	158481	165325
Pressure drop system side	kPa	49	50	68	76	91	99	64	68	88	96	122	71	78	82	99	108	118
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	139,8	142,0	203,2	208,4	211,6	214,7	280,5	284,4	350,8	354,8	421,5	486,7	491,2	644,2	562,5	566,7	570,0
Input power	kW	7,5	7,5	11,2	11,2	11,2	11,2	15,0	15,0	18,7	18,7	22,5	26,2	26,2	26,2	30,0	30,0	30,0
Free cooling total input current	A	13,0	13,0	20,0	20,0	19,0	19,0	26,0	26,0	32,0	32,0	39,0	46,0	45,0	45,0	52,0	52,0	52,0
EER	W/W	18,64	18,94	18,07	18,53	18,81	19,09	18,71	18,97	18,72	18,93	18,74	18,55	18,72	18,88	18,76	18,90	19,01
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635	123735	130494	138018	150865	158481	165325
Pressure drop system side	kPa	88	97	101	117	139	158	112	125	144	161	188	119	132	142	159	175	190
Free-cooling plus																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	210,3	232,4	271,9	305,1	333,3	369,6	428,9	469,8	538,2	579,2	650,8	715,4	754,0	796,6	871,8	914,9	953,7
Input power	kW	76,8	89,2	94,8	110,0	126,2	147,6	158,7	187,5	203,2	232,3	246,6	262,0	283,2	311,5	324,9	352,5	379,6
Cooling total input current	A	135,0	154,0	167,0	191,0	217,0	251,0	272,0	320,0	351,0	399,0	427,0	454,0	487,0	534,0	562,0	608,0	653,0
EER	W/W	2,74	2,61	2,87	2,77	2,64	2,50	2,70	2,51	2,65	2,49	2,64	2,73	2,66	2,56	2,68	2,60	2,51
Water flow rate system side	l/h	36136	39921	46723	52411	57266	63506	73697	80717	92472	99510	111819	122911	129551	136864	149782	157193	163856
Pressure drop system side	kPa	48	49	67	75	89	97	63	66	87	95	120	70	77	81	97	106	116
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	149,8	152,0	217,8	223,3	226,6	229,5	300,5	304,3	375,9	379,8	451,6	521,6	526,3	530,5	602,5	606,6	609,8
Input power	kW	7,6	7,6	11,4	11,4	11,4	11,4	15,2	15,2	19,0	19,0	22,8	26,7	26,7	26,7	30,5	30,5	30,5
Free cooling total input current	A	13,0	13,0	20,0	20,0	20,0	19,0	26,0	26,0	33,0	33,0	40,0	46,0	46,0	46,0	53,0	53,0	52,0
EER	W/W	19,66	19,95	19,06	19,55	19,83	20,09	19,73	19,98	19,74	19,94	19,76	19,57	19,74	19,90	19,78	19,91	20,01
Water flow rate system side	l/h	36136	29921	46723	52411	57266	63506	73697	80717	92472	99510	111819	122911	129551	136864	149782	157193	163856
Pressure drop system side	kPa	86	95	100	116	137	155	110	123	142	158	185	117	130	140	157	172	186

(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

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Free-cooling																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	220,6	242,6	265,3	310,3	344,7	379,2	438,5	498,2	546,9	610,1	652,9	714,0	752,8	815,7	885,8	926,2	966,7
Input power	kW	73,4	84,2	95,7	106,6	122,4	142,0	155,3	174,8	199,2	219,5	244,7	257,6	278,8	299,8	316,7	342,9	369,1
Cooling total input current	A	126,0	142,0	160,0	179,0	205,0	236,0	258,0	292,0	333,0	368,0	411,0	432,0	465,0	501,0	531,0	575,0	619,0
EER	W/W	3,00	2,88	2,77	2,91	2,82	2,67	2,82	2,85	2,75	2,78	2,67	2,77	2,70	2,72	2,80	2,70	2,62
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169	122679	129338	140150	152184	159137	166091
Pressure drop system side	kPa	44	53	57	82	90	109	58	75	85	89	102	69	77	85	100	109	119
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	164,6	168,5	223,0	222,5	227,6	231,2	285,4	338,9	344,8	399,2	403,7	458,1	462,0	516,7	571,9	576,1	579,7
Input power	kW	7,9	7,9	7,9	10,5	10,5	10,5	13,1	15,8	15,8	18,4	18,4	21,0	21,0	23,6	26,3	26,3	26,3
Free cooling total input current	A	13,0	13,0	13,0	18,0	18,0	17,0	22,0	26,0	26,0	31,0	31,0	35,0	35,0	39,0	44,0	44,0	44,0
EER	W/W	20,90	21,39	21,78	21,18	21,67	22,02	21,74	21,51	21,89	21,72	21,97	21,81	22,00	21,87	21,78	21,94	22,08
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169	122679	129338	140150	152184	159137	166091
Pressure drop system side	kPa	67	80	88	120	136	165	95	114	132	139	159	110	122	132	150	163	178
Free-cooling plus																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	219,4	241,1	263,2	308,4	342,1	375,8	435,2	494,7	542,4	605,4	647,1	708,4	746,2	808,9	878,9	918,2	957,4
Input power	kW	74,1	85,1	96,8	107,7	123,7	143,8	157,0	176,7	201,6	222,1	247,8	260,7	282,3	303,4	320,4	347,3	374,2
Cooling total input current	A	126,0	144,0	162,0	181,0	206,0	238,0	260,0	294,0	336,0	372,0	415,0	436,0	470,0	506,0	536,0	581,0	626,0
EER	W/W	2,96	2,83	2,72	2,86	2,76	2,61	2,77	2,80	2,69	2,73	2,61	2,72	2,64	2,67	2,74	2,64	2,56
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187	121705	128201	138974	151002	157752	164500
Pressure drop system side	kPa	44	53	56	81	89	107	57	74	84	88	100	68	76	84	98	107	117
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	175,0	179,4	182,7	236,7	242,4	246,2	304,0	360,9	367,2	425,1	429,9	487,9	491,9	550,3	609,1	613,5	617,1
Input power	kW	8,0	8,0	8,0	10,7	10,7	10,7	13,3	16,0	16,0	18,6	18,6	21,3	21,3	24,0	26,6	26,6	26,6
Free cooling total input current	A	14,0	13,0	13,0	18,0	18,0	18,0	22,0	27,0	27,0	31,0	31,0	36,0	35,0	40,0	45,0	45,0	45,0
EER	W/W	21,90	22,45	22,86	22,22	22,76	23,11	22,83	22,58	22,98	22,80	23,06	22,90	23,09	22,96	22,87	23,04	23,17
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187	121705	128201	138974	151002	157752	164500
Pressure drop system side	kPa	66	79	87	118	134	162	94	113	130	137	156	108	120	130	147	160	174

(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

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Free-cooling																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	227,3	250,9	275,8	320,4	357,9	396,3	455,4	515,9	569,2	633,7	680,9	742,0	785,1	849,2	919,7	965,1	1010,6
Input power	kW	73,7	83,6	94,1	106,4	120,6	138,5	153,5	173,2	195,2	215,9	238,4	253,0	272,3	293,7	311,5	334,6	357,7
Cooling total input current	A	133,0	149,0	166,0	189,0	212,0	240,0	267,0	304,0	341,0	379,0	418,0	444,0	474,0	513,0	547,0	587,0	626,0
EER	W/W	3,08	3,00	2,93	3,01	2,97	2,86	2,97	2,98	2,92	2,94	2,86	2,93	2,88	2,89	2,95	2,88	2,83
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	47	57	61	88	97	120	62	81	92	96	111	75	84	92	108	118	130
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	192,7	198,6	203,6	261,5	269,7	276,0	338,6	400,3	410,2	473,3	481,2	544,1	551,0	614,6	678,8	686,3	692,8
Input power	kW	11,2	11,2	11,2	15,0	15,0	15,0	18,7	22,5	22,5	26,2	26,2	30,0	30,0	33,7	37,5	37,5	37,5
Free cooling total input current	A	20,0	20,0	20,0	27,0	26,0	26,0	33,0	39,0	39,0	46,0	46,0	53,0	52,0	59,0	66,0	66,0	66,0
EER	W/W	17,13	17,66	18,11	17,44	17,99	18,41	18,07	17,80	18,24	18,04	18,34	18,14	18,37	18,22	18,11	18,31	18,48
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	71	86	95	128	147	179	103	122	143	150	173	119	133	143	161	177	194

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

Cooling capacity	kW	226,2	249,6	274,2	318,8	356,0	393,8	452,9	513,3	565,9	630,2	676,8	737,9	780,4	844,3	914,6	959,5	1004,3
Input power	kW	74,4	84,4	95,0	107,4	121,8	139,9	154,8	174,8	197,2	218,0	240,9	255,4	275,0	296,5	314,5	338,0	361,5
Cooling total input current	A	134,0	150,0	167,0	190,0	213,0	242,0	269,0	306,0	344,0	382,0	421,0	447,0	478,0	517,0	551,0	591,0	631,0
EER	W/W	3,04	2,96	2,89	2,97	2,92	2,82	2,93	2,94	2,87	2,89	2,81	2,89	2,84	2,85	2,91	2,84	2,78
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	46	57	60	87	96	118	62	80	91	95	110	74	83	91	106	117	128

Cooling performances with free-cooling (2)

Cooling capacity	kW	205,9	212,7	218,2	279,8	289,0	295,9	362,9	428,9	439,8	507,3	515,9	583,3	590,7	658,8	727,6	735,7	742,7
Input power	kW	11,4	11,4	11,4	15,2	15,2	15,2	19,0	22,8	22,8	26,7	26,7	30,5	30,5	34,3	38,1	38,1	38,1
Free cooling total input current	A	21,0	20,0	20,0	27,0	27,0	26,0	33,0	40,0	40,0	47,0	47,0	53,0	53,0	60,0	67,0	67,0	66,0
EER	W/W	18,02	18,62	19,10	18,37	18,97	19,42	19,06	18,77	19,25	19,03	19,35	19,14	19,39	19,22	19,10	19,32	19,50
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	70	85	94	126	145	177	102	121	141	148	171	118	131	141	159	175	191

(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

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Free-cooling																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	228,3	252,4	278,0	320,3	358,3	397,2	454,4	510,9	563,3	628,5	675,3	728,3	769,3	837,1	899,9	942,6	985,4
Input power	kW	72,5	82,2	92,3	104,6	118,7	136,3	151,0	171,5	194,0	213,5	236,4	253,2	273,3	292,4	312,3	337,1	361,8
Cooling total input current	A	124,0	140,0	156,0	177,0	199,0	227,0	251,0	287,0	325,0	360,0	399,0	425,0	457,0	490,0	525,0	567,0	608,0
EER	W/W	3,15	3,07	3,01	3,06	3,02	2,91	3,01	2,98	2,90	2,94	2,86	2,88	2,82	2,86	2,88	2,80	2,72
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	50	61	66	88	98	120	63	79	90	94	109	72	80	90	103	113	123
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	263,0	209,6	216,0	263,3	272,4	279,7	331,7	383,3	392,7	446,3	453,4	505,5	511,3	565,7	619,3	625,2	630,3
Input power	kW	10,5	10,5	10,5	13,1	13,1	13,1	15,8	18,4	18,4	21,0	21,0	23,6	23,6	26,3	28,9	28,9	28,9
Free cooling total input current	A	18,0	18,0	18,0	22,0	22,0	22,0	26,0	31,0	31,0	35,0	35,0	40,0	39,0	44,0	49,0	49,0	49,0
EER	W/W	25,04	19,96	20,57	20,06	20,75	21,30	21,06	20,85	21,37	21,25	21,59	21,39	21,64	21,55	21,44	21,65	21,83
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	71	86	96	121	139	171	95	115	133	143	164	110	122	134	151	165	180

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

Cooling capacity	kW	227,4	251,4	276,7	318,8	356,3	394,6	451,9	508,1	559,8	624,6	670,7	723,5	763,9	831,4	894,1	935,9	977,8
Input power	kW	73,1	82,8	93,1	105,5	119,8	137,7	152,4	173,0	195,9	215,7	239,0	255,8	276,2	295,5	315,6	340,8	366,1
Cooling total input current	A	125,0	141,0	157,0	178,0	201,0	229,0	253,0	289,0	328,0	362,0	402,0	429,0	461,0	494,0	529,0	572,0	614,0
EER	W/W	3,11	3,03	2,97	3,02	2,98	2,87	2,97	2,94	2,86	2,90	2,81	2,83	2,77	2,81	2,83	2,75	2,67
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	50	60	65	87	97	119	62	78	89	93	108	71	79	88	102	111	122

Cooling performances with free-cooling (2)

Cooling capacity	kW	213,1	221,8	229,3	278,7	289,4	297,7	352,9	407,4	418,1	475,0	482,9	538,2	544,6	602,5	659,5	666,0	671,4
Input power	kW	10,7	10,7	10,7	13,3	13,3	13,3	16,0	18,6	18,6	21,3	21,3	24,0	24,0	26,6	29,3	29,3	29,3
Free cooling total input current	A	18,0	18,0	18,0	22,0	22,0	22,0	27,0	31,0	31,0	36,0	36,0	40,0	40,0	45,0	49,0	49,0	49,0
EER	W/W	20,00	20,82	21,53	20,93	21,73	22,36	22,08	21,85	22,43	22,30	22,66	22,46	22,72	22,62	22,51	22,73	22,92
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	70	86	96	120	138	169	94	114	132	141	162	108	121	132	149	163	177

(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			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Free-cooling																				
Energy index																				
SEPR	A	W/W	6,23	5,76	6,02	6,10	5,80	5,25	6,07	5,54	5,77	5,53	5,79	5,99	5,69	5,50	5,72	5,53	5,53	
	E	W/W	6,97	6,30	6,09	6,33	6,14	5,49	6,27	6,17	5,79	5,89	5,71	5,97	5,63	5,71	5,93	5,60	5,57	
	N	W/W	7,32	7,12	6,83	6,96	6,67	6,10	6,69	6,55	6,19	6,26	6,04	6,22	5,87	6,01	6,08	5,79	5,66	
	U	W/W	7,09	6,79	6,52	6,78	6,50	5,97	6,64	6,55	6,28	6,29	6,14	6,41	6,06	6,11	6,31	6,05	5,94	
Free-cooling plus																				
Energy index																				
SEPR	A	W/W	6,28	5,77	6,01	6,16	5,83	5,24	6,12	5,54	5,81	5,54	5,83	6,05	5,74	5,51	5,74	5,54	5,52	
	E	W/W	6,96	6,35	6,12	6,39	6,17	5,49	6,30	6,21	5,81	5,91	5,71	5,98	5,63	5,71	5,94	5,60	5,56	
	N	W/W	7,31	7,12	6,82	6,82	6,67	6,15	6,74	6,64	6,25	6,32	6,08	6,28	5,91	6,04	6,12	5,82	5,68	
	U	W/W	7,09	6,87	6,53	6,53	6,49	6,04	6,64	6,65	6,37	6,39	6,19	6,51	6,15	6,21	6,41	6,13	6,01	

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Electric data																				
Maximum current (FLA)	A	A	190,0	207,0	243,0	272,0	301,0	330,0	379,0	420,0	480,0	521,0	587,0	639,0	672,0	713,0	773,0	814,0	855,0	
	E,U	A	210,0	226,0	243,0	291,0	321,0	350,0	398,0	464,0	505,0	565,0	606,0	659,0	692,0	752,0	812,0	853,0	894,0	
	N	A	229,0	246,0	262,0	311,0	340,0	369,0	423,0	484,0	525,0	585,0	626,0	678,0	711,0	771,0	832,0	872,0	913,0	
Peak current (LRA)	A	A	379,0	434,0	470,0	523,0	552,0	664,0	713,0	689,0	749,0	790,0	856,0	909,0	941,0	982,0	1043,0	1084,0	1124,0	
	E,U	A	398,0	454,0	470,0	542,0	571,0	684,0	732,0	734,0	774,0	835,0	876,0	928,0	961,0	1021,0	1081,0	1122,0	1163,0	
	N	A	418,0	473,0	489,0	561,0	591,0	703,0	758,0	753,0	794,0	854,0	895,0	947,0	980,0	1041,0	1101,0	1142,0	1183,0	

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Compressor																				
Type	A,E,N,U	type	Scroll																	
Compressor regulation	A,E,N,U	Type	On-Off																	
Number	A,E,N,U	no.	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6	
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Refrigerant	A,E,N,U	type	R410A																	
Refrigerant charge	A	kg	32,0	32,0	48,0	48,0	48,0	48,0	64,0	64,0	80,0	80,0	96,0	112,0	112,0	112,0	128,0	128,0	128,0	
	E,U	kg	48,0	48,0	48,0	64,0	64,0	64,0	80,0	96,0	96,0	112,0	112,0	128,0	128,0	144,0	160,0	160,0	160,0	
	N	kg	64,0	64,0	64,0	80,0	80,0	80,0	96,0	112,0	112,0	128,0	128,0	144,0	144,0	160,0	176,0	176,0	176,0	
System side heat exchanger																				
Type	A,E,N,U	type	Braze plate																	
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
System side hydraulic connections																				
Connections (in/out)	A,E,N,U	Type	Grooved joints																	
Sizes (in/out)	A	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	
	E,N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"	5"	

SOUND DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Sound data calculated in cooling mode (1)																				
Sound power level	A	dB(A)	88,0	88,0	90,0	90,0	90,0	90,0	92,0	92,0	94,0	94,0	96,0	97,0	97,0	97,0	97,0	97,0	97,0	
	E	dB(A)	85,0	85,0	85,0	87,0	87,0	87,0	88,0	89,0	90,0	91,0	91,0	92,0	92,0	93,0	93,0	93,0	93,0	
	N	dB(A)	87,0	87,0	87,0	88,0	88,0	88,0	89,0	90,0	90,0	92,0	92,0	93,0	93,0	93,0	94,0	94,0	94,0	
	U	dB(A)	90,0	90,0	90,0	92,0	92,0	92,0	93,0	94,0	95,0	96,0	97,0	97,0	97,0	98,0	99,0	99,0	99,0	
Sound pressure level (10 m)	A	dB(A)	55,9	56,0	58,0	57,9	57,9	57,9	59,3	59,8	61,4	61,9	63,2	63,9	63,9	63,9	64,5	64,5	64,5	
	E	dB(A)	52,9	53,0	52,8	54,3	54,3	54,3	55,3	56,8	57,2	58,5	58,9	59,4	59,4	60,1	60,5	60,5	60,5	
	N	dB(A)	54,4	54,5	54,4	55,4	55,4	55,4	56,3	57,6	58,0	59,2	59,6	60,1	60,1	60,6	61,0	61,0	61,0	
	U	dB(A)	58,0	58,1	58,0	59,4	59,4	59,4	60,5	62,0	62,4	63,7	64,0	64,6	64,6	65,3	65,7	65,7	65,7	

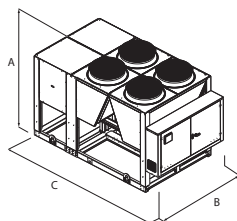
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

FANS DATA

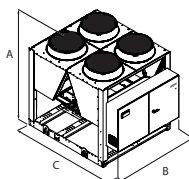
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Free-cooling																			
Fan																			
Type	A,E,N,U	type	axials																
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	A	m³/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400
	E	m³/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000
	N	m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
	U	m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Free-cooling plus																			
Fan																			
Type	A,E,N,U	type	axials																
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	A	m³/h	54800	54800	82200	82200	82200	82200	109600	109600	137000	137000	164400	191800	191800	191800	219200	219200	230400
	E	m³/h	61800	61800	61800	82400	82400	82400	103000	123600	123600	144200	144200	164800	164800	185400	206000	206000	216000
	N	m³/h	82400	82400	82400	103000	103000	103000	123600	144200	144200	164800	164800	185400	185400	206000	226600	226600	237600
	U	m³/h	82200	82200	82200	109600	109600	109600	137000	164400	164400	191800	191800	219200	219200	246600	274000	274000	288000

DIMENSIONS

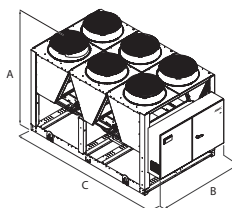
NRB0800÷0900 A (*)



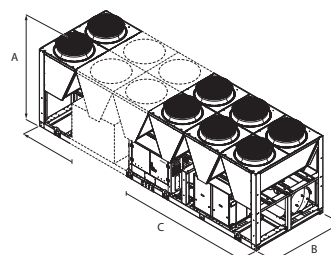
NRB0900A



NRB1000÷1400 A
NRB0800÷1000 E/U



NRB1600÷3600 A
NRB1100÷3600 E/U
NRB0800÷3600 N



Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights																			
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
Weight empty	A	kg	3220	3270	3340	3770	3840	3870	4290	4840	4970	5600	5680	6310	6560	7010	7540	7620	7700
	E	kg	3330	3370	3450	3890	3960	3980	4420	4970	5110	5780	5860	6520	6770	7240	7770	7850	7930
	N	kg	3360	3400	3480	3910	3990	4010	4450	5000	5140	5800	5880	6550	6790	7270	7800	7880	7960
	U	kg	3350	3400	3470	3910	3980	4000	4450	4990	5140	5800	5880	6540	6790	7270	7800	7880	7960

■ Units 0800A and 0900A with the optional "storage tank" are 3970 mm long.

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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