

NRB 0800-3600

Air-water chiller

Cooling capacity 217 ÷ 1049 kW



- Microchannel coils
- Night mode
- Operation up to 50 °C outdoor air
- HP floating: ESEER +7% with inverter fans



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. They are outdoor units with axial fan scroll compressors, microchannel batteries and plate exchangers. In the unit with desuperheater, it is also possible to produce free-hot water. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- ▲ High efficiency
- Silenced high efficiency
- Standard silenced
- Silenced very high efficiency
- Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

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.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Electronic expansion valve

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.

It is standard in all sizes from 1800 to 3600.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO⁵

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- 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.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load. **ESEER up to +7% with inverter fans.**
- **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. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

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 <input type="radio"/> Standard mechanic thermostatic valve (2) <input checked="" type="radio"/> Electronic thermostatic valve (2) <input type="radio"/> Low temperature mechanic thermostatic valve (3) <input type="radio"/> Low temperature electronic thermostatic valve (3)
9	Model <input type="radio"/> Cooling only <input checked="" type="radio"/> Motocondensing unit (4)
10	Heat recovery <input type="radio"/> Without heat recovery <input checked="" type="radio"/> With desuperheater (5) <input type="radio"/> With total recovery (6)
11	Version <input type="radio"/> Standard <input checked="" type="radio"/> High efficiency <input type="radio"/> Silenced high efficiency <input type="radio"/> Standard silenced <input type="radio"/> Silenced very high efficiency <input type="radio"/> Very high efficiency
12	Coils <input type="radio"/> Alluminium microchannel <input checked="" type="radio"/> Copper-aluminium <input type="radio"/> Painted alluminium microchannel <input type="radio"/> Copper-copper <input type="radio"/> Tinned copper <input type="radio"/> Copper-painted aluminium
13	Fans <input type="radio"/> Standard <input checked="" type="radio"/> Inverter (7) <input type="radio"/> Oversized
14	Power supply <input type="radio"/> 400V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit Without hydronic kit 00 Without hydronic kit Kit with n° 1 pump (8) 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

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

(2) Water produced from 4 °C ÷ 18 °C

(3) Water produced from 4 °C ÷ -8 °C for L version; -10 °C for the others versions

(4) The motor condensing units "C" are not configurable with option Y/X/Z/T/I/D

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

(6) All hydronic kit (from PA to BJ) are not compatible for the following sizes and versions with heat recovery "T": 0800 - 0900 - 1000 - 1100 versions °; 0800 - 0900 versions A; 0800 - 0900 versions L. All hydraulic kit with pump / and buffer tank (from AA to BJ) are not compatible for all sizes and versions with heat recovery T

(7) Inverter fans (J) as standard from size 2000 to 3600, version °.

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

Field	Description
	Pump n° 1 pump + stand-by pump (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
	Kit with storage tank and n° 1 pump (8)
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 (8)
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

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
Fans: °									
°	DCPX120	DCPX120	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX122	-
A	DCPX120	DCPX120	DCPX122	DCPX121	DCPX121	DCPX121	DCPX122	DCPX122	DCPX123
E,L,N	As standard								
U	DCPX121	DCPX121	DCPX122	DCPX122	DCPX122	DCPX122	DCPX123	DCPX124	DCPX124
Fans: M									
°	DCPX130	DCPX130	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX132	-
A	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX133
E,L,N	As standard								
U	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX132	DCPX133	DCPX134	DCPX134
Ver	2200	2400	2600	2800	3000	3200	3400	3600	
Fans: °									
°	-	-	-	-	-	-	-	-	-
A	DCPX123	DCPX124	DCPX125	DCPX125	DCPX125	DCPX126	DCPX126	DCPX126	-
E,L,N	As standard								
U	DCPX125	DCPX125	DCPX126	DCPX126	DCPX127	DCPX128	DCPX128	DCPX128	-
Fans: M									
°	-	-	-	-	-	-	-	-	-
A	DCPX133	DCPX134	DCPX135	DCPX135	DCPX135	DCPX136	DCPX136	DCPX136	-
E,L,N	As standard								
U	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX138	DCPX138	DCPX138	-

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°,A,E,L,N,U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

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	0800	0900	1000	1100	1200	1400	1600	1800	2000
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1800	RIFNRB2000
A,L	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,L,N,U	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

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

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
°	GP2VN	GP2VN	GP2VN	GP2VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN
A,L	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP6V
E,U	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP6V	GP7V	GP8V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP7V	GP8V	GP9VN

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

■ GP2VN becomes GP2VNA in case of configuration with hydronic kit type A and B

Kit for low temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
°	-	-	-	-	-	-	XLA (1)										
A,L	-	-	-	-	-	-	XLA (1)										
E,U	-	-	-	XLA (1)													
N	XLA (1)																

(1) With the accessory XLA do not use the DCPX

The accessory cannot be fitted on the configurations indicated with -

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

ENERGY DATA

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Cooling capacity with low leaving water temp (UE n° 2016/2281)																			
SEER	°	W/W	4,09	4,00	3,98	3,89	4,22	4,25	4,13	4,12	4,17	4,11	4,14	4,14	4,23	4,16	4,13	4,19	4,12
	A	W/W	4,28	4,17	4,27	4,28	4,36	4,37	4,43	4,30	4,25	4,20	4,26	4,37	4,29	4,27	4,27	4,22	4,20
	E	W/W	4,30	4,20	4,26	4,35	4,40	4,35	4,51	4,33	4,23	4,30	4,31	4,38	4,28	4,30	4,34	4,25	4,28
	L	W/W	4,13	3,94	4,15	4,12	4,15	4,15	4,27	4,17	4,14	4,12	4,12	4,28	4,14	4,19	4,18	4,18	4,16
	N	W/W	4,44	4,38	4,44	4,55	4,54	4,56	4,65	4,54	4,43	4,47	4,49	4,49	4,40	4,44	4,43	4,33	4,35
	U	W/W	4,35	4,35	4,38	4,47	4,51	4,50	4,58	4,51	4,42	4,42	4,47	4,56	4,36	4,40	4,47	4,35	4,36
ηsc	°	%	160,50	156,90	156,00	152,70	165,70	167,10	162,00	161,90	163,70	161,20	162,50	162,70	166,00	163,20	162,10	164,70	161,80
	A	%	168,30	163,60	167,60	168,30	171,50	165,90	174,00	168,80	167,00	165,10	167,40	171,60	168,70	167,90	165,90	164,90	
	E	%	168,80	165,00	167,40	170,90	173,10	167,00	177,20	170,00	166,20	168,90	169,50	172,20	168,00	168,80	170,40	167,00	168,20
	L	%	162,10	154,60	163,00	161,90	163,00	164,30	167,70	163,60	162,50	161,80	161,90	168,30	162,50	164,60	164,10	164,30	163,50
	N	%	174,60	172,20	174,40	178,80	178,60	170,10	182,90	178,40	174,00	175,90	176,40	176,70	172,90	174,40	174,30	170,10	170,90
	U	%	171,00	170,80	172,10	175,80	177,50	171,00	180,10	177,20	173,70	173,60	175,90	179,20	171,50	173,00	175,60	171,00	171,40

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	164,0	181,0	197,0	226,0	262,0	291,0	320,0	367,0	408,0	449,0	497,0	529,0	569,0	610,0	650,0	698,0	739,0
	A,L	A	177,0	193,0	222,0	252,0	281,0	310,0	352,0	393,0	446,0	487,0	547,0	592,0	625,0	666,0	720,0	761,0	802,0
	E,U	A	190,0	206,0	222,0	265,0	294,0	323,0	365,0	424,0	465,0	519,0	560,0	605,0	638,0	692,0	745,0	786,0	827,0
	N	A	203,0	219,0	235,0	277,0	307,0	336,0	383,0	437,0	478,0	531,0	572,0	618,0	651,0	704,0	758,0	799,0	840,0
Peak current (LRA)	°	A	353,0	408,0	424,0	477,0	513,0	625,0	654,0	637,0	678,0	719,0	766,0	799,0	838,0	879,0	920,0	967,0	1008,0
	A,L	A	366,0	421,0	450,0	503,0	532,0	644,0	686,0	662,0	716,0	757,0	816,0	862,0	895,0	936,0	989,0	1030,0	1071,0
	E,U	A	378,0	434,0	450,0	515,0	545,0	657,0	699,0	693,0	734,0	788,0	829,0	874,0	907,0	961,0	1015,0	1056,0	1096,0
	N	A	391,0	446,0	463,0	528,0	557,0	670,0	717,0	706,0	747,0	801,0	842,0	887,0	920,0	974,0	1027,0	1068,0	1109,0

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,L,N,U	type																Scroll
Compressor regulation	°,A,E,L,N,U	Type																On/Off
Number	°,A,E,L,N,U	no.	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L,N,U	type											R410A					
	°	kg	32,0	32,0	32,0	32,0	48,0	48,0	48,0	64,0	64,0	80,0	80,0	96,0	96,0	96,0	112,0	112,0
Refrigerant charge	A,L	kg	32,0	32,0	48,0	48,0	48,0	64,0	64,0	80,0	80,0	96,0	112,0	112,0	128,0	128,0	128,0	128,0
	E,U	kg	48,0	48,0	48,0	64,0	64,0	80,0	96,0	112,0	112,0	128,0	128,0	144,0	160,0	160,0	160,0	160,0
	N	kg	64,0	64,0	64,0	80,0	80,0	96,0	112,0	112,0	128,0	128,0	144,0	160,0	176,0	176,0	176,0	176,0
System side heat exchanger																		
Type	°,A,E,L,N,U	type											Brazed plate					
Number	°,A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																		
Connections (in/out)	°,A,E,L,N,U	Type											Grooved joints					
	°	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"
Size (in)	A,L	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"
	E,N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"
Size (out)	°	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"
	A,L	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"
Fan	E,N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"
																		Axial
Fan motor																		
	°	type	On-Off	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter									
Number	A,E,L,N,U	type	On-Off	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter									
	°	no.	4	4	4	4	6	6	6	8	8	8	10	10	12	12	12	14
	A,L	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16
Air flow rate	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22
	°	m³/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000
Sound power level	A	m³/h	64000	64000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	256000	256000	288000	
	E	m³/h	69000	69000	69000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	
	L	m³/h	46000	46000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	184000	184000	208000	
Sound data calculated in cooling mode (1)	N	m³/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000
	U	m³/h	96000	96000	96000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	

(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).

■ *Inverter fans (I) as standard from size 2000 to 3600, version °.*

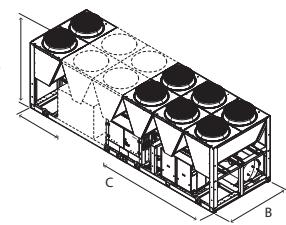
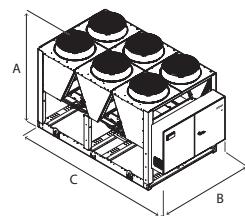
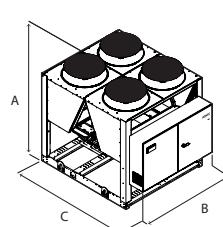
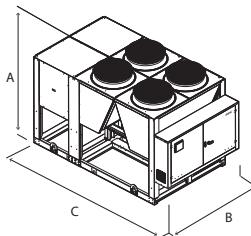
DIMENSIONS

NRB 0800 - 1100 ° (1)
NRB 0800 - 0900 L/A (1)

NRB 0800 - 1100 °
NRB 0800 - 0900 L/A

NRB 1200 - 1600 °
NRB 1000 - 1400 L/A
NRB 0800 - 1000 E/U

NRB 1800 - 3600 °
NRB 1600 - 3600 L/A
NRB 1100 - 3600 E/U
NRB 0800 - 3600 N



1 Versions with storage tank

Size	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights																	
A	°,A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	°	mm	2780	2780	2780	2780	3970	3970	3970	4760	4760	4760	5950	5950	7140	7140	8330
C	A,L	mm	2780	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	11900	13090	13090
	°	kg	2240	2280	2350	2390	2880	2930	2960	3580	3660	3740	4270	4500	5150	5390	5470
Weight empty	A,L	kg	2260	2320	2800	2870	2910	2970	3490	3630	4110	4230	4670	5510	5760	5910	6390
	E,U	kg	2720	2760	2840	3370	3440	3460	3940	4390	4510	5200	5280	5910	6160	6700	7140
	N	kg	3220	3270	3340	3770	3840	3870	4290	4840	4970	5600	5680	6310	6560	7010	7540

■ Units 0800°, 0900°, 1000°, 1100°; 0800L, 0900L; 0800A, 0900A with the optional "storage tank" are 3970 mm long.

■ The weights are for standard units with plate heat exchangers and no hydronic kit.

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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