NRB 0800-2406 F

Air-water chiller with free-cooling

Cooling capacity 211 ÷ 680 kW

- **Microchannel coil**
- **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 galvanized 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 size and version. For further details refer to the selection software/technical documentation.

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

The units from size 1805 to 2406 have an electronic expansion valve as standard.
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 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.

- 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:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406
8		**Operating field**
	X	Electronic thermostatic expansion valve (1)
	Y	Low temperature mechanic thermostatic valve
	Z	Low temperature electronic thermostatic valve
	°	Standard mechanic thermostatic valve (2)
9		**Model**
	F	Free-cooling
	P	Free-cooling plus (3)
10		**Heat recovery**
	D	With desuperheater (4)
	°	Without heat recovery
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils / free-cooling coils**
	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 alumimium / Copper-painted alumimium
	°	Alluminium microchannel / Copper - aluminium
13		**Fans**
	J	Inverter
	°	Standard
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 (5)
		Pump n° 1 pump + stand-by pump
	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 (5)
		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 (5)
		Kit with storage tank and n° 1 pump + stand-by pump
	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 (5)

(1) Electronic thermostatic as standard from size 1805÷2406.
(2) Water produced from 4 °C ÷ 18 °C
(3) Free cooling Plus models "P" are compatible only with "°" 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.

ACCESSORIES

AER485P1: RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.
AERBACP: Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.
AERLINK: Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.
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 control boards). 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.
FL: Flow switch.
MULTICHILLER-EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
PR4: Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
AER485P1	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•
AERLINK	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	•	•	•	•	•	•	•	•	•	•	•

Remote panel

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
PR4	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Integrated hydronic kit: 00											
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052
E, U	AVX1070	AVX1070	AVX1070	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1057	AVX1057
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, BA, BB, BC, BD											
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053
E, U	AVX1071	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051
Integrated hydronic kit: AH, AI, BE, BF, BG											
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053
E, U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051
Integrated hydronic kit: BH, BI											
A	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053
E, U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1078	AVX1056	AVX1051	AVX1051
Integrated hydronic kit: DA, DB, DC, DD, PA, PB, PC, PD, PE, PF, PG											
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052
E, U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050
Integrated hydronic kit: DE, DF, DG, PH, PI											
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052
E, U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1054	AVX1054
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1055	AVX1054	AVX1050	AVX1050
Integrated hydronic kit: DH, DI											
A	AVX1067	AVX1067	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1079	AVX1076	AVX1052
E, U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1055	AVX1055
N	AVX1072	AVX1072	AVX1072	AVX1076	AVX1076	AVX1076	AVX1052	AVX1077	AVX1055	AVX1050	AVX1050

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400
A, E, N, U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (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.
A grey background indicates the accessory must be assembled in the factory

Ver	1600	1805	2006	2206	2406
A, E, N, U	DRENRB1600 (1)	DRENRB1805 (1)	DRENRB2006 (1)	DRENRB2206 (1)	DRENRB2406 (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.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

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

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

Ver	1600	1805	2006	2206	2406
A	RIFNRB1601	RIFNRB1805	RIFNRB2006	RIFNRB2206	RIFNRB2416
E, N, U	RIFNRB1601	RIFNRB1815	RIFNRB2016	RIFNRB2216	RIFNRB2416

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

Double safety valves

Ver	0800	0900	1000	1100	1200	1400
A	T6NRB13	T6NRB13	T6NRB14	T6NRB14	T6NRB15	T6NRB15
E, N, U	T6NRB14	T6NRB14	T6NRB14	T6NRB14	T6NRB15	T6NRB15

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

Ver	1600	1805	2006	2206	2406
A	T6NRB15	T6NRB15	T6NRB15	T6NRB15	T6NRB16
E, U	T6NRB15	T6NRB17	T6NRB16	T6NRB19	T6NRB19
N	T6NRB18	T6NRB19	T6NRB19	T6NRB20	T6NRB20

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

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
A	GP2VN	GP2VN	GP3VNF	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4G	GP5G	GP5G	GP6V
E, U	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP8V

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.

PERFORMANCE SPECIFICATIONS

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: F												
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
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
Cooling total input current	A	133,7	152,1	165,5	189,4	215,1	248,2	269,7	316,3	347,4	394,4	423,3
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
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635
Pressure drop system side	kPa	49	50	68	76	91	99	64	68	88	96	122
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
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
Free cooling total input current	A	13,2	13,0	19,8	19,6	19,4	19,2	25,7	25,6	32,4	32,2	39,1
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
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635
Pressure drop system side	kPa	88	97	101	117	139	158	112	125	144	161	188

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: P												
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
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
Cooling total input current	A	134,8	153,7	166,7	190,9	217,2	251,0	272,1	319,8	350,6	398,7	427,3
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
Water flow rate system side	l/h	36136	39921	46723	52411	57266	63506	73697	80717	92472	99510	111819
Pressure drop system side	kPa	48	49	67	75	89	97	63	66	87	95	120
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
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
Free cooling total input current	A	13,4	13,1	20,1	19,8	19,7	19,4	26,1	26,0	32,8	32,7	39,6
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
Water flow rate system side	l/h	36136	39921	46723	52411	57266	63506	73697	80717	92472	99510	111819
Pressure drop system side	kPa	86	95	100	116	137	155	110	123	142	158	185

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: F												
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
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
Cooling total input current	A	125,5	142,4	160,1	179,2	204,6	235,8	257,7	291,8	333,0	368,2	410,5
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
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169
Pressure drop system side	kPa	44	53	57	82	90	109	58	75	85	89	102
Cooling performances with free-cooling (2)												
Cooling capacity	kW	164,6	168,5	171,5	222,5	227,6	231,2	285,4	338,9	344,8	399,2	403,7
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
Free cooling total input current	A	13,5	13,3	13,2	17,6	17,6	17,4	21,8	26,3	26,3	30,8	30,8
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
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169
Pressure drop system side	kPa	67	80	88	120	136	165	95	114	132	139	159

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: P												
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
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
Cooling total input current	A	126,4	143,5	161,5	180,6	206,5	238,4	260,0	294,4	336,3	371,8	415,0
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
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187
Pressure drop system side	kPa	44	53	56	81	89	107	57	74	84	88	100
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
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
Free cooling total input current	A	13,6	13,5	13,3	17,9	17,8	17,7	22,1	26,6	26,7	31,2	31,2
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
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187
Pressure drop system side	kPa	66	79	87	118	134	162	94	113	130	137	156

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: F												
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
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
Cooling total input current	A	133,2	149,2	165,7	188,7	211,5	240,0	266,7	303,5	341,3	379,5	417,9
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
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982
Pressure drop system side	kPa	47	57	61	88	97	120	62	81	92	96	111
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
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
Free cooling total input current	A	20,3	20,1	19,8	26,6	26,3	26,0	32,6	39,4	39,3	46,1	46,0
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
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982
Pressure drop system side	kPa	71	86	95	128	147	179	103	122	143	150	173

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: P												
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
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
Cooling total input current	A	134,1	150,2	166,9	189,9	213,2	242,0	268,6	305,7	344,0	382,4	421,4
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
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278
Pressure drop system side	kPa	46	57	60	87	96	118	62	80	91	95	110
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
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
Free cooling total input current	A	20,6	20,3	20,1	26,9	26,7	26,4	33,0	40,0	39,9	46,8	46,6
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
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278
Pressure drop system side	kPa	70	85	94	126	145	177	102	121	141	148	171

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: F												
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
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
Cooling total input current	A	124,4	140,1	156,3	176,6	199,3	227,4	251,4	286,8	325,4	359,5	398,6
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
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017
Pressure drop system side	kPa	50	61	66	88	98	120	63	79	90	94	109
Cooling performances with free-cooling (2)												
Cooling capacity	kW	202,3	209,6	216,0	263,3	272,4	279,7	331,7	383,3	392,7	446,3	453,4
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
Free cooling total input current	A	18,0	17,9	17,8	22,2	22,0	21,9	26,2	30,7	30,8	35,4	35,4
EER	W/W	19,26	19,96	20,57	20,06	20,75	21,30	21,06	20,85	21,37	21,25	21,59
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017
Pressure drop system side	kPa	71	86	96	121	139	171	95	115	133	143	164

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: P												
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
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
Cooling total input current	A	125,1	140,9	157,2	177,7	200,7	229,3	253,2	289,0	328,0	362,5	402,2
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
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226
Pressure drop system side	kPa	50	60	65	87	97	119	62	78	89	93	108
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
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
Free cooling total input current	A	18,2	18,1	18,0	22,4	22,3	22,2	26,6	31,1	31,2	35,8	35,8
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
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226
Pressure drop system side	kPa	70	86	96	120	138	169	94	114	132	141	162

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) Acqua scambiatore lato utenza 12 °C / * °C ; Aria esterna 2 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: F													
SEPR - (EN14825: 2018) High temperature with standard fans (1)													
SEPR	A	W/W	6,24	5,77	6,03	6,11	5,82	5,27	6,09	5,55	5,79	5,55	5,70
	E	W/W	6,98	6,31	6,11	6,34	6,16	5,51	6,28	6,19	5,81	5,90	5,73
	N	W/W	7,33	7,13	6,84	6,84	6,70	6,12	6,70	6,57	6,21	6,29	6,07
	U	W/W	7,10	6,80	6,54	6,66	6,52	5,99	6,66	6,57	6,30	6,31	6,16
SEPR - (EN14825: 2018) High temperature with inverter fans (1)													
SEPR	A	W/W	6,24	5,77	6,03	6,11	5,82	5,27	6,09	5,55	5,79	5,55	5,70
	E	W/W	6,98	6,31	6,11	6,34	6,16	5,51	6,28	6,19	5,81	5,90	5,73
	N	W/W	7,33	7,13	6,84	6,84	6,70	6,12	6,70	6,57	6,21	6,29	6,07
	U	W/W	7,10	6,80	6,54	6,66	6,52	5,99	6,66	6,57	6,30	6,31	6,16

(1) Calculation performed with FIXED water flow rate.

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: P													
SEPR - (EN14825: 2018) High temperature with standard fans (1)													
SEPR	A	W/W	6,09	5,62	5,91	5,97	5,68	5,13	5,95	5,51	5,65	5,51	5,57
	E	W/W	6,82	6,16	5,95	6,20	6,01	5,37	6,13	6,04	5,66	5,76	5,59
	N	W/W	7,22	6,98	6,71	6,69	6,54	5,98	6,55	6,42	6,07	6,14	5,92
	U	W/W	6,98	6,64	6,39	6,51	6,39	5,86	6,51	6,42	6,16	6,17	6,03
SEPR - (EN14825: 2018) High temperature with inverter fans (1)													
SEPR	A	W/W	6,09	5,62	5,91	5,97	5,68	5,13	5,95	5,51	5,65	5,51	5,57
	E	W/W	6,82	6,16	5,95	6,20	6,01	5,37	6,13	6,04	5,66	5,76	5,59
	N	W/W	7,22	6,98	6,71	6,69	6,54	5,98	6,55	6,42	6,07	6,14	5,92
	U	W/W	6,98	6,64	6,39	6,51	6,39	5,86	6,51	6,42	6,16	6,17	6,03

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Electric data													
Maximum current (FLA)	A	A	190,4	206,8	242,5	271,9	301,2	330,2	378,6	423,4	487,6	516,6	570,9
	E,U	A	209,8	226,2	242,5	291,3	320,6	349,6	398,0	468,1	512,9	561,3	590,3
	N	A	229,2	245,6	261,9	310,7	340,0	369,0	423,3	487,5	532,3	580,7	609,7
Peak current (LRA)	A	A	379,0	434,2	469,9	522,6	551,9	664,4	712,8	757,6	821,8	850,8	905,1
	E,U	A	398,4	453,6	469,9	542,0	571,3	683,8	732,2	802,3	847,1	895,5	924,5
	N	A	417,8	473,0	489,3	561,4	590,7	703,2	757,5	821,7	866,5	914,9	943,9

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
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	5	6	6	6
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type						R410A					
Refrigerant load circuit 1 (1)	A	kg	14,5	15,0	20,0	22,0	21,5	21,5	25,0	25,0	31,0	31,0	44,0
	E,U	kg	20,5	20,0	21,5	26,0	26,0	26,0	30,0	36,0	36,0	56,5	56,0
	N	kg	26,0	26,5	26,5	29,0	28,0	35,0	42,0	44,0	43,0	62,0	62,0
Refrigerant load circuit 2 (1)	A	kg	14,5	15,0	20,0	22,0	23,5	21,5	27,0	30,0	38,0	34,0	44,0
	E,U	kg	20,5	20,0	21,5	27,0	27,0	27,0	32,0	39,0	40,0	56,5	56,0
	N	kg	26,0	26,5	26,5	30,0	31,0	35,0	42,0	47,0	47,0	62,0	62,0
Potential global heating	A,E,N,U	GWP						2088kgCO_2eq					
System side heat exchanger													
Type	A,E,N,U	type						Brazed plate					
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections													
Connections (in/out)	A,E,N,U	Type						Grooved joints					
Hydraulic connections without hydronic kit													
Sizes (in/out)	A,E,N,U	Ø	3″	3″	3″	3″	3″	3″	4″	4″	4″	4″	4″
Hydraulic connections with hydronic kit													
Sizes (in/out)	A,E,N,U	Ø	3″	3″	3″	3″	3″	3″	4″	4″	4″	4″	4″

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

SOUND DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Sound data calculated in cooling mode (1)													
Sound power level	A	dB(A)	88,0	88,1	90,3	90,2	90,2	90,2	91,7	92,2	93,9	94,4	95,8
	E	dB(A)	85,0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91,0	91,5
	N	dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90,0	90,5	91,7	92,2
	U	dB(A)	90,2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7
Sound pressure level (10 m)	A	dB(A)	55,9	56,0	58,0	57,9	57,9	57,9	59,3	59,8	61,3	61,8	63,2
	E	dB(A)	52,7	52,8	52,8	54,2	54,2	54,2	55,2	56,5	57,0	58,2	58,7
	N	dB(A)	54,2	54,3	54,3	55,2	55,2	55,2	56,0	57,2	57,7	58,8	59,3
	U	dB(A)	57,9	58,0	58,0	59,3	59,3	59,3	60,4	61,7	62,2	63,4	63,9

(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

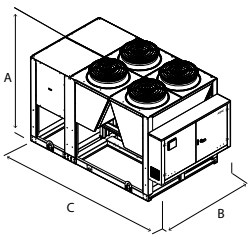
Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: F													
Fan													
Type	A,E,N,U	type						axials					
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14
	N	no.	8	8	8	10	10	10	12	14	14	16	16
Air flow rate	A	m^3/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800
	E	m^3/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200
	N	m^3/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800
	U	m^3/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Model: P													
Fan													
Type	A,E,N,U	type						axials					

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14
	N	no.	8	8	8	10	10	10	12	14	14	16	16
Air flow rate	A	m^3/h	54800	54800	82200	82200	82200	82200	109600	109600	137000	137000	164400
	E	m^3/h	61800	61800	61800	82400	82400	82400	103000	123600	123600	144200	144200
	N	m^3/h	82400	82400	82400	103000	103000	103000	123600	144200	144200	164800	164800
	U	m^3/h	82200	82200	82200	109600	109600	109600	137000	164400	164400	191800	191800

DIMENSIONS

NRB 0800-0900 A (1)



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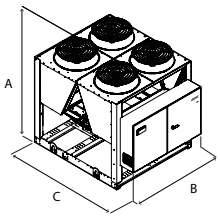
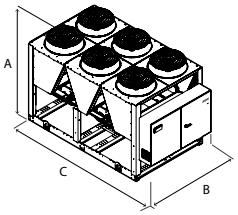


NRB 1000-1400 A
NRB 0800-1000 E-U



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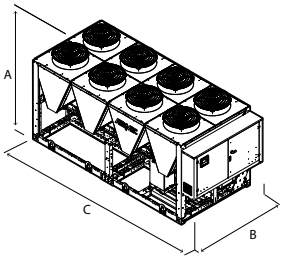
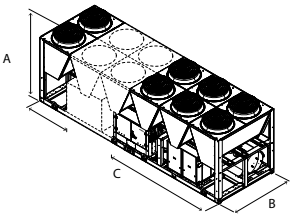


NRB 1600 A
NRB 2406 A
NRB 1100-2406 E-U
NRB 0800-2406 N



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:
NRB 0800A, 0900A

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Dimensions and weights													
A	A,E,N,U	mm	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
C	A	mm	2780	2780	3970	3970	3970	3970	4760	5160	6350	6350	7140
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520

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

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406
Integrated hydronic kit: 00													
Free-cooling													
Empty weight	A	kg	2570	2620	3260	3330	3370	3420	4080	4290	5020	5100	5670
	E,U	kg	3080	3130	3290	3990	4060	4080	4660	5350	5570	6330	6390
	N	kg	3760	3800	3960	4530	4610	4630	5160	5940	6160	6870	6930
Free-cooling plus													
Empty weight	A	kg	2630	2680	3350	3420	3460	3510	4200	4410	5170	5250	5850
	E,U	kg	3170	3220	3380	4110	4180	4200	4810	5530	5750	6540	6600
	N	kg	3880	3920	4080	4680	4760	4780	5340	6150	6370	7110	7170

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