

NRB

0800/3600
only cooling

Air/Water chillers for outdoor installation
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity 221 ÷ 1047kW

R410A



Aermec participate in the EUROVENT program: LCP the products are present on the site www.eurovent-certification.com
* Not certified model

Variable Multi Flow

VMF



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **QUICK AND EASY INSTALLATION**
- **NIGHT MODE**

Characteristics

Outdoor chillers for the production of chilled water with high-efficiency scroll compressors, axial fans, microchannel condenser coils, plate heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with polyester paint.

Versions

NRB_°	Standard
NRB_L	Standard low noise
NRB_A	High efficiency
NRB_E	High efficiency low noise
NRB_U	Very high efficiency
NRB_N	Very high efficiency low noise

Range of operation: Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in case one of the circuits stops
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- The possibility of using the electronic thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. It is supplied as standard from size 1800÷3600 optional for all other sizes.
- Electrical heater for plate heat exchanger
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- 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.

Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "I" inverter fan must be specified to allow Night Mode to operate.

Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;

- **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER_PCO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
Standard in option low noise version or with desuperheater.
- **AVX:** Spring anti-vibration mounts.

- **FL:** flow switch
- Accessories factory fitted only**
- **DRE:** Electronic soft starter which reduces starting current.
 - **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current).
 - **GP:** Coil guards
 - **COMPATIBILITY with the VMF SYSTEM**
For more information on the system refer to the manual.

Compatibility of accessories

Mod. NRB	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_PCO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	*	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Accessories factory fitted only

Accessories	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
DRENRB	°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
RIF	L	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	*	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

* Accessories to be defined for compatibility

(1) Refer to the technical documentation

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description	15-16	Integrated hydronic kit
1,2,3	NRB	00	Without hydronic kit
4,5,6,7	Sizes ⁽²⁾ 0800-0900-1000-1100-1200-1400-1600-1800-2000- 2200-2400-2600-2800-3000-3200-3400-3600		With n°1 pump: (5)
8	Operational limits	PA	Pump A
	° Standard (temperature of water produced up to +4 °C) ⁽³⁾	PB	Pump B
Y	Low temperature (temperature of water produced from +4°C a -8°C) ⁽³⁾	PC	Pump C
X	Electronic thermostatic valve (temperature of water produced up to +4 °C)	PD	Pump D
Z	Low temperature electronic thermostatic valve (temperature of water produced from +4°C a -8°C)	PE	Pump E
9	Model	PF	Pump F
	° Cooling Only	PG	Pump G
C	Motor condensing unit ⁽⁴⁾	PH	Pump H
10	Heat recovery	PI	Pump I
	° Without heat recovery	PJ	Pump J
D	With desuperheater ⁽⁴⁾		With n°2 pump: (5)
T	With total recovery ⁽⁴⁾	DA	Pump A and Stand-by pump
11	Version	DB	Pump B and Stand-by pump
	° Standard	DC	Pump C and Stand-by pump
L	Low noise Standard	DD	Pump D and Stand-by pump
A	High efficiency	DE	Pump E and Stand-by pump
E	Low noise high efficiency	DF	Pump F and Stand-by pump
U	Very high efficiency	DG	Pump G and Stand-by pump
N	Low noise very high efficiency	DH	Pump H and Stand-by pump
12	Coils	DI	Pump I and Stand-by pump
	° Aluminium microchannel	DJ	Pump J and Stand-by pump
O	Painted aluminium microchannel		With n° 1 pump and buffer tank: (5)(6)
R	Copper - Copper	AA	Pump A and buffer tank
S	Copper - Tinned	AB	Pump B and buffer tank
13	Fans	AC	Pump C and buffer tank
	° Standard	AD	Pump D and buffer tank
M	increased	AE	Pump E and buffer tank
J	Inverter	AF	Pump F and buffer tank
14	Power supply	AG	Pump G and buffer tank
	° 400V/3/50Hz with fuses	AH	Pump H and buffer tank
		AI	Pump I and buffer tank
		AJ	Pump J and buffer tank
			With n° 2 pumps and buffer tank: (5)(6)
		BA	Pump A with Stand-by pump and buffer tank
		BB	Pump B with Stand-by pump and buffer tank
		BC	Pump C with Stand-by pump and buffer tank
		BD	Pump D with Stand-by pump and buffer tank
		BE	Pump E with Stand-by pump and buffer tank
		BF	Pump F with Stand-by pump and buffer tank
		BG	Pump G with Stand-by pump and buffer tank
		BH	Pump H with Stand-by pump and buffer tank
		BI	Pump I with Stand-by pump and buffer tank
		BJ	Pump J with Stand-by pump and buffer tank

(2) The availability of models is to be agreed with the Technical Sales

(3) Sizes from 1800÷3600 standard with the electronic thermostatic valve

(4) The motor condensing units are not configurable with option Y/X/Z
The models with total recovery "D/T" are not configurable with Y/Z and with vers. "C"

(5) 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 "00"

- 0800 - 0900 versions "A"

- 0800 - 0900 versions "L"

(6) All hydraulic kit with pump / and buffer tank (from AA to BJ) are not compatible for all sizes and versions with heat recovery "T"

Technical Data

Mod NRB		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Cooling capacity	° kW	221	244	270	299	352	404	438	510	559	596	674	719	784	829	878	943	996
	L kW	217	237	272	307	343	390	438	497	554	607	665	726	769	833	885	950	1002
	A kW	224	252	283	326	361	411	461	518	575	632	696	756	804	865	927	978	1024
	E kW	219	248	275	321	358	403	454	514	568	636	687	740	793	856	910	963	1017
	U kW	227	257	286	329	369	414	466	528	593	654	716	764	814	877	939	997	1047
	N kW	227	260	284	327	367	412	465	521	578	645	702	748	803	865	925	971	1027
Total input power	° kW	73	83	94	110	117	135	155	176	194	217	236	256	270	293	315	329	355
	L kW	73	86	92	107	123	139	152	173	192	214	234	247	270	285	307	323	348
	A kW	71	81	90	105	115	132	148	166	183	203	223	240	256	277	297	314	330
	E kW	70	79	89	102	115	130	144	165	183	203	221	237	255	275	291	310	328
	U kW	69	78	87	99	112	126	141	160	179	198	215	229	249	266	282	303	320
	N kW	69	79	86	99	112	125	140	158	176	195	213	229	247	263	283	301	319
EER	° W/W	3,02	2,93	2,87	2,71	3,00	2,98	2,82	2,90	2,88	2,75	2,85	2,81	2,90	2,83	2,79	2,86	2,80
	L W/W	2,97	2,76	2,96	2,86	2,80	2,81	2,88	2,87	2,89	2,84	2,84	2,94	2,85	2,93	2,88	2,94	2,88
	A W/W	3,17	3,11	3,14	3,11	3,13	3,12	3,13	3,12	3,13	3,11	3,12	3,14	3,14	3,12	3,12	3,11	3,10
	E W/W	3,14	3,12	3,10	3,14	3,12	3,10	3,15	3,12	3,10	3,13	3,10	3,13	3,10	3,12	3,13	3,10	3,10
	U W/W	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,31	3,31	3,31	3,32	3,33	3,27	3,30	3,33	3,30	3,28
	N W/W	3,32	3,30	3,29	3,32	3,28	3,28	3,31	3,30	3,28	3,31	3,29	3,27	3,26	3,28	3,27	3,22	3,22
ESEER	° W/W	4,16	4,07	4,00	3,84	4,14	4,12	3,96	4,04	4,02	3,88	3,98	3,94	4,04	3,97	3,92	4,00	3,93
	L W/W	4,23	4,09	4,22	4,15	4,11	4,12	4,17	4,16	4,18	4,14	4,14	4,21	4,14	4,20	4,17	4,21	4,17
	A W/W	4,32	4,23	4,27	4,23	4,25	4,24	4,25	4,24	4,26	4,23	4,24	4,28	4,27	4,25	4,24	4,23	4,21
	E W/W	4,33	4,30	4,27	4,33	4,29	4,27	4,33	4,29	4,27	4,31	4,27	4,31	4,27	4,29	4,31	4,26	4,27
	U W/W	4,37	4,39	4,37	4,39	4,38	4,35	4,39	4,39	4,39	4,41	4,41	4,42	4,33	4,38	4,41	4,37	4,34
	N W/W	4,48	4,44	4,44	4,48	4,42	4,42	4,47	4,45	4,42	4,47	4,44	4,44	4,40	4,38	4,42	4,41	4,33
Water flow rate	° l/h	38160	42120	46550	51620	60800	69720	75600	88010	96580	103000	116350	124240	135450	142970	151500	162790	171800
	L l/h	37360	40940	46960	52990	59200	67320	75460	85760	95600	104710	114690	125170	132530	143570	152590	163960	172820
	A l/h	38600	43440	48860	56140	62190	70870	79580	89370	99160	109010	120100	130380	138690	149210	159850	168810	176730
	E l/h	37750	42770	47360	55330	61750	69420	78330	88560	97950	109670	118450	127560	136720	147660	156920	166120	175460
	U l/h	39190	44360	49350	56750	63670	71380	80370	91100	102250	112740	123390	131760	140330	151290	161950	172070	180640
	N l/h	39210	44840	49030	56430	63300	70980	80240	89790	99680	111130	120920	128990	138510	149130	159500	167560	177270
Total pressure drop	° kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43
	L kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43
	A kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45
	E kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46
	U kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49
	N kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47

Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical data																		
Total input current	(1) ° A	128	143	160	186	202	230	261	300	330	367	405	434	459	498	535	563	606
	(1) L A	123	142	154	179	203	232	251	290	319	359	390	413	449	479	513	545	585
	(1) A A	124	140	159	182	198	224	252	284	316	349	386	418	442	476	513	542	568
	(1) E A	119	135	149	172	193	216	240	275	306	343	373	397	426	460	488	521	549
	(1) U A	124	138	153	176	196	218	244	278	312	348	377	401	432	463	494	528	556
	(1) N A	118	135	147	167	189	209	234	264	295	329	360	385	412	442	475	506	536
Compressors	type	scroll																
Compressors	n°	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	type	R410A																
System side exchanger	type	plate																
exchanger	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fans standard	type	axial																
fans	° n°	4	4	4	4	6	6	6	8	8	8	10	10	12	12	12	14	14
	L n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	A n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E n°	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	U n°	6	6	6	8	8	8	10	12	12	12	14	16	16	18	20	20	20
	N n°	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate cooling mode	° m³/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000
	L m³/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	184000	184000	184000	
	A m³/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	
	E m³/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	
	U m³/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	
	N m³/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	
Sound data																		
Sound power	° dB(A)	88	88	88	88	90	90	90	92	92	93	95	95	96	96	96	96	96
	L dB(A)	83	83	85	85	85	86	86	88	89	90	90	91	91	92	92	93	93
	A dB(A)	88	88	90	90	90	90	91	92	94	94	96	96	96	96	97	97	97
	E dB(A)	85	85	85	86	86	86	88	89	89	91	91	92	92	93	93	93	93
	U dB(A)	90	90	90	91	91	91	93	94	95	96	96	97	97	98	98	98	98
	N dB(A)	86	86	86	88	88	88	88	90	90	91	92	93	93	93	94	94	94
Power supply	V/ph/Hz	400V/3/50Hz																

(1) The electrical data of the versions without hydronic module integrated

Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Note: For more information, refer to the selection program Magellan or the technical documentation available on the website www.aermec.com

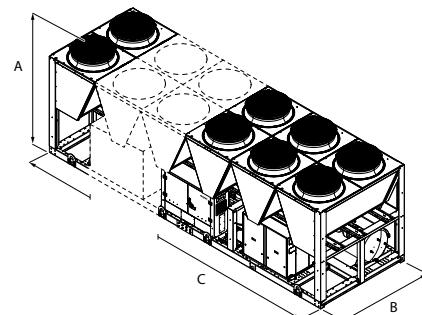
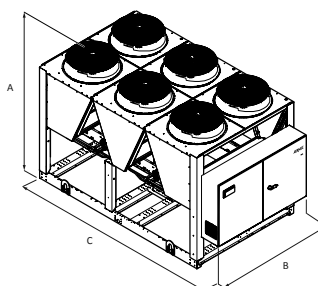
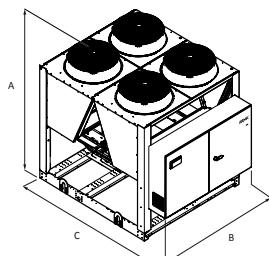
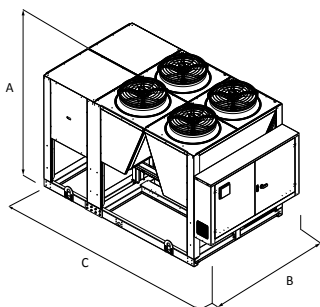
Dimensions (mm)

(1) Versions with buffer tank
NRB0800÷1100 ° (1)
NRB0800÷0900 L/A (1)

NRB0800÷1100 °
NRB0800÷0900 L/A

NRB1200÷1600 °
NRB1000÷1400 L/A
NRB0800÷1000 E/U

NRB1800÷3600 °
NRB1600÷3600 L/A
NRB1100÷3600 E/U
NRB0800÷3600 N



Mod. NRB			Vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000
Height	(mm)	A	all	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	all	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	°	2780 (1)	2780 (1)	2780 (1)	2780 (1)	3970	3970	3970	4760	4760
			L	2780 (1)	2780 (1)	3970	3970	3970	3970	4760	4760	5950
			A	2780 (1)	2780 (1)	3970	3970	3970	3970	4760	4760	5950
			E	3970	3970	3970	4760	4760	4760	5950	7140	7140
			U	3970	3970	3970	4760	4760	4760	5950	7140	7140
			N	4760	4760	4760	5950	5950	5950	7140	8330	8330
Weight	(kg)	°	2240	2280	2350	2390	2880	2930	2960	3580	3660	
		L	2260	2320	2800	2870	2910	2970	3490	3630	4110	
		A	2260	2320	2800	2870	2910	2970	3490	3630	4110	
		E	2720	2760	2840	3370	3440	3460	3940	4390	4510	
		U	2720	2760	2840	3370	3440	3460	3940	4390	4510	
		N	3220	3270	3340	3770	3840	3870	4290	4840	4970	

(1) Depth of the models without hydronic kit or pumps, for models with storage depth is 3970mm

Mod. NRB			Vers.	2200	2400	2600	2800	3000	3200	3400	3600
Height	(mm)	A	all	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	all	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	°	4760	5950	5950	7140	7140	7140	8330	8330
			L	5950	7140	8330	8330	8330	9520	9520	9520
			A	5950	7140	8330	8330	8330	9520	9520	9520
			E	8330	8330	9520	9520	10710	11900	11900	11900
			U	7140	8330	9520	9520	10710	11900	11900	11900
			N	9520	9520	10710	10710	11900	13090	13090	13090
Weight	(kg)	°	3740	4270	4500	5150	5390	5470	6000	6150	
		L	4230	4670	5510	5760	5910	6390	6520	6600	
		A	4230	4670	5510	5760	5910	6390	6520	6600	
		E	5200	5280	5910	6160	6700	7140	7220	7300	
		U	5200	5280	5910	6160	6700	7140	7220	7300	
		N	5600	5680	6310	6560	7010	7540	7620	7700	