

NRB

0800/3600
Heat pumps

Reversible heat pumps Air/Water for outdoor installation
Scroll compressors, plate heat exchangers and axial fans
Cooling capacity 196÷969kW
Heating capacity 210÷1009kW

R410A



Aermec participate in the EUROVENT program: LCP the products are present on the site www.eurovent-certification.com

Variable MultiFlow

VMF



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

Characteristics

Outdoor heat pump unit for the production of chilled / hot water, with high-efficiency scroll compressors, axial fans, plate heat exchanger. In the units (with desuperheater) 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.

Version

- NRB_H Standard
- NRB_HL Low noise
- NRB_HA High efficiency
- NRB_HE 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 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 available static pressures
- 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. NRBH	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
MULTICHILLER_PCO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
DCPX	*	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Accessories factory fitted only																			
DRENRB		0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-	
	H°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
RIF	HL	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
	HA	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
	HE	0800	0900	1000	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	
1,2,3	NRB	PG Pump G
4,5,6,7	Size (1)	PH Pump H
	0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600	PI Pump I
8	Operational limits	PJ Pump J
	° Standard (temperature of water produced up to +4 °C) (2)	With n°2 pump:
	X Electronic thermostatic valve (temperature of water produced up to +4 °C)	DA Pump A and Stand-by pump
9	Model	DB Pump B and Stand-by pump
	H Reversible heat pump	DC Pump C and Stand-by pump
10	Heat recovery	DD Pump D and Stand-by pump
	° Without heat recovery	DE Pump E and Stand-by pump
	D With desuperheater (3)	DF Pump F and Stand-by pump
11	Version	DG Pump G and Stand-by pump
	° Standard	DH Pump H and Stand-by pump
	L Low noise Standard	DI Pump I and Stand-by pump
	A High efficiency	DJ Pump J and Stand-by pump
	E Low noise high efficiency	With n° 1 pump and buffer tank:
12	Coils	AA Pump A and buffer tank
	° Aluminium	AB Pump B and buffer tank
	R Copper - Copper	AC Pump C and buffer tank
	S Copper - Tinned	AD Pump D and buffer tank
	V Aluminium painted	AE Pump E and buffer tank
13	Fans	AF Pump F and buffer tank
	° Standard	AG Pump G and buffer tank
	J Inverter	AH Pump H and buffer tank
14	Power supply	AI Pump I and buffer tank
	° 400V/3/50Hz with breakers	AJ Pump J and buffer tank
15-16	Integrated hydronic kit	With n° 2 pumps and buffer tank:
	00 Without hydronic kit	BA Pump A with Stand-by pump and buffer tank
	With n°1 pump:	BB Pump B with Stand-by pump and buffer tank
	PA Pump A	BC Pump C with Stand-by pump and buffer tank
	PB Pump B	BD Pump D with Stand-by pump and buffer tank
	PC Pump C	BE Pump E with Stand-by pump and buffer tank
	PD Pump D	BF Pump F with Stand-by pump and buffer tank
	PE Pump E	BG Pump G with Stand-by pump and buffer tank
	PF Pump F	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

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

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

(3) The desuperheater can be used exclusively in the cold operation

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Mod NRBH		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Cooling capacity	H kW	196	218	251	279	314	353	388	456	501	567	615	652	716	766	804	868	913	
	HL kW	198	228	247	275	301	359	392	453	494	552	592	650	680	748	783	847	881	
	HA kW	206	244	267	297	329	385	425	488	537	600	651	708	744	814	858	926	969	
	HE kW	209	241	264	294	326	377	432	489	540	597	647	698	734	798	840	902	943	
Total input power	H kW	74	86	92	108	120	142	156	173	193	211	231	253	266	291	316	328	353	
	HL kW	75	79	90	106	123	133	153	169	194	209	234	246	270	285	310	327	352	
	HA kW	72	78	88	102	117	129	147	164	185	201	222	237	258	274	296	312	334	
	HE kW	67	77	85	98	112	125	139	157	177	192	215	231	251	269	290	308	327	
EER	H W/W	2,64	2,53	2,74	2,58	2,62	2,50	2,50	2,64	2,59	2,69	2,66	2,58	2,69	2,63	2,55	2,65	2,58	
	HL W/W	2,63	2,89	2,75	2,59	2,44	2,70	2,55	2,68	2,55	2,64	2,53	2,64	2,52	2,62	2,53	2,59	2,50	
	HA W/W	2,87	3,11	3,02	2,90	2,81	2,98	2,89	2,98	2,91	2,98	2,93	2,98	2,89	2,97	2,90	2,97	2,91	
	HE W/W	3,11	3,12	3,11	3,00	2,90	3,01	3,10	3,11	3,04	3,10	3,01	3,02	2,93	2,96	2,90	2,93	2,88	
ESEER	H W/W	3,87	3,78	3,94	3,82	3,85	3,75	3,75	3,86	3,83	3,90	3,88	3,82	3,90	3,85	3,79	3,87	3,82	
	HL W/W	3,97	4,18	4,07	3,94	3,83	4,03	3,92	4,02	3,92	3,98	3,90	3,99	3,90	3,97	3,90	3,95	3,88	
	HA W/W	4,03	4,20	4,14	4,05	3,99	4,11	4,04	4,11	4,06	4,11	4,07	4,11	4,04	4,10	4,05	4,10	4,06	
	HE W/W	4,26	4,27	4,26	4,19	4,13	4,20	4,26	4,27	4,22	4,26	4,19	4,20	4,14	4,17	4,12	4,14	4,11	
Water flow rate	H l/h	33700	37450	43220	47930	53940	60750	66770	78400	86140	97600	105710	112230	123220	131750	138240	149300	157050	
	HL l/h	34020	39150	42560	47290	51750	61700	67380	77950	85040	94880	101870	111870	117020	128570	134690	145610	151550	
	HA l/h	35430	41890	45860	51010	56580	66220	73060	83880	92440	103240	111890	121700	128000	139970	147490	159300	166720	
	HE l/h	36020	41540	45490	50580	56140	64890	74270	84050	92820	102630	111280	120080	126210	137180	144410	155190	162200	
Total pressure drop	H kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34	
	HL kPa	14	18	15	19	14	20	18	23	23	28	17	21	23	23	25	29	32	
	HA kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38	
	HE kPa	15	20	18	22	16	22	21	27	27	33	21	24	27	27	29	33	36	
Heating capacity	H kW	216	238	276	307	345	367	414	479	529	593	645	691	752	797	838	909	950	
	HL kW	210	251	275	305	335	395	432	498	544	611	655	719	759	826	871	939	983	
	HA kW	215	255	279	311	341	401	439	507	554	621	667	731	772	841	887	956	1002	
	HE kW	224	258	284	317	350	404	459	522	573	636	685	742	786	850	897	962	1009	
Total input power	H kW	70	78	90	100	112	122	137	157	174	194	211	228	245	261	276	296	312	
	HL kW	67	80	87	99	108	126	137	158	173	195	209	228	244	265	280	300	317	
	HA kW	67	79	87	97	106	125	137	157	172	194	207	227	240	261	275	297	312	
	HE kW	69	80	88	98	109	126	143	163	177	198	212	230	245	265	280	300	315	
COP	H W/W	3,07	3,06	3,08	3,07	3,07	3,01	3,02	3,05	3,03	3,06	3,06	3,06	3,03	3,07	3,06	3,04	3,07	3,05
	HL W/W	3,13	3,15	3,15	3,09	3,09	3,13	3,16	3,15	3,14	3,13	3,14	3,15	3,11	3,12	3,11	3,13	3,10	
	HA W/W	3,22	3,21	3,22	3,20	3,22	3,22	3,21	3,22	3,23	3,21	3,22	3,22	3,22	3,22	3,22	3,22	3,22	3,21
	HE W/W	3,23	3,21	3,23	3,22	3,21	3,20	3,21	3,21	3,21	3,24	3,21	3,23	3,23	3,21	3,21	3,21	3,21	3,20
Water flow rate	H l/h	37070	40900	47420	52730	59290	63120	71140	82450	90980	102060	110920	118790	129380	137170	144180	156330	163400	
	HL l/h	36130	43100	47230	52500	57540	67910	74230	85690	93550	105020	112680	123590	130470	142140	149760	161500	169100	
	HA l/h	36890	43800	48040	53480	58730	69060	75590	87180	95310	106870	114790	125750	132860	144720	152600	164480	172340	
	HE l/h	38470	44430	48850	54560	60150	69450	79000	89730	98560	109320	117800	127710	135130	146150	154300	165520	173610	
Total pressure drop	H kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37	
	HL kPa	15	22	19	23	17	24	21	28	28	35	21	26	29	28	31	36	39	
	HA kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41	
	HE kPa	17	23	20	25	19	25	24	31	31	38	23	27	31	30	33	38	41	

Cooling (14511:2013)

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

Heating: (14511:2013)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C
b.s./6°C b.u.

GENERAL DATA		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical data																		
Total input current cooling mode	(1) H A	131	150	163	189	207	242	263	296	331	365	398	437	456	504	545	564	606
	(1) HL A	126	133	150	176	203	220	252	280	321	347	390	409	446	473	515	543	585
	(1) HA A	127	141	157	179	203	225	254	285	321	352	389	416	448	479	515	546	582
	(1) HE A	115	132	144	164	187	208	230	261	296	322	362	387	417	449	483	515	547
Total input current heating mode	(1) H A	125	138	158	175	195	212	236	274	304	340	369	397	427	458	484	519	549
	(1) HL A	119	139	152	171	187	216	234	272	299	336	363	394	420	457	484	518	549
	(1) HA A	120	142	155	172	187	219	240	277	303	342	368	401	421	460	485	526	550
	(1) HE A	122	140	153	170	188	216	244	278	305	341	367	396	420	456	482	517	544
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	H n°	4	4	6	6	6	6	6	8	8	10	10	12	12	14	14	14	14
	HL n°	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18
	HA n°	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18
	HE n°	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22	22
Air flow rate cooling mode	H m³/h	80000	80000	120000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	280000	280000
	HL m³/h	60000	90000	90000	90000	90000	120000	120000	150000	150000	180000	180000	210000	210000	240000	240000	270000	270000
	HA m³/h	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	320000	320000	360000	360000
	HE m³/h	90000	120000	120000	120000	120000	150000	180000	210000	210000	240000	240000	270000	270000	300000	300000	330000	330000
Sound data																		
Sound power	H dB(A)																	

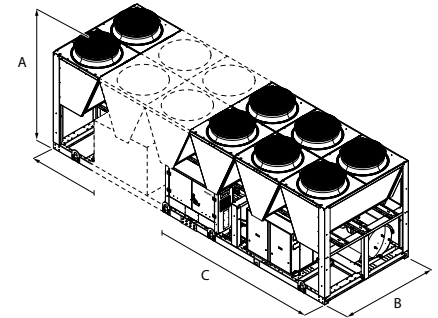
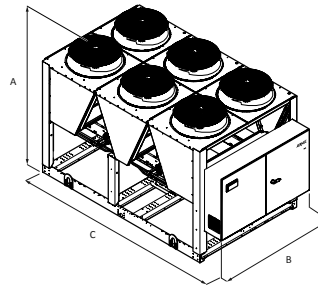
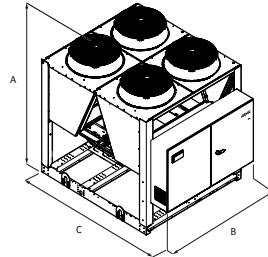
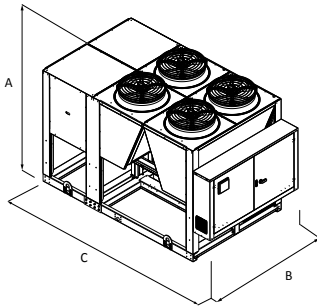
Dimensions (mm)

(1) Versions with buffer tank
NRB0800 H/HL/HA
NRB0900 H

NRB0800 H/HL/HA
NRB0900 H

NRB0800 HE
NRB0900=1200 HL/HA
NRB1000=1600 H

NRB0900=3600 HE
NRB1400=3600 HL/HA
NRB1800=3600 H



				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Height	H	A		2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	H	B		2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depth	H	C		2780 ⁽¹⁾	2780 ⁽¹⁾	3970	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	8330	8330	8330
	HL	C		2780 ⁽¹⁾	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710	10710
	HA	C		2780 ⁽¹⁾	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710	10710	10710
	HE	C		3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090	13090

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