

NRB 0800-3000-HP

Reversible air/water heat pump

Cooling capacity 54.4 ÷ 178.1 ton
Heating capacity 629,881 ÷ 2,071,170 BTU/h

- High efficiency also at partial loads
- Night mode
- HP floating: ESEER +7% with inverter fans



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

Outdoor units with scroll compressors, axial flow fans and plate heat exchangers.

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

FEATURES

Operating field

Working at full load up to 14.0 °F outside air temperature in winter, and up to 122.0 °F in summer. Hot water production up to 131.0 °F (for more details refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

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

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. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **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 "J" inverter fan**

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.

FL-UL: Flow switch.

MULTICHLILLER_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.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
AER485P1	A,E	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AERNET	A,E	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FL-UL (1)	A,E	.	.	.	.	.	.	.	.	.	.	.	.	.	.
MULTICHLILLER_EVO	A,E	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PGD1	A,E	.	.	.	.	.	.	.	.	.	.	.	.	.	.

(1) Compliant with UL regulation

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
A,E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP8V	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
A,E	AVX1080	AVX1072	AVX1072	AVX1072	AVX1072	AVX1086	AVX1084	AVX1094	AVX1094	AVX1088	AVX1088	-	-	-

The accessory cannot be fitted on the configurations indicated with -

230V and 208V power supplies: Available only with fans J for sizes from 0800 to 1200.

CONFIGURATOR

Field	Description
1,2,3	NRB
	Size
4,5,6,7	0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000
8	Operating field
	◦ Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
9	Model
H	Heat pump
10	Heat recovery
	◦ Without heat recovery
D	With desuperheater (3)
11	Version
A	High efficiency
E	Silenced high efficiency
12	Coils
	◦ Aluminium microchannel
O	Coated aluminium microchannel
R	Copper-copper
S	Tinned copper
13	Fans
	◦ Standard (4)
J	Inverter
14	Power supply
6	230V ±10% ~3 / 60Hz with thermomagnetic switches (5)
7	460V ±10% ~3 / 60Hz with thermomagnetic switches
8	575V ±10% ~3 / 60Hz with thermomagnetic switches
9	208V ±10% ~3 / 60Hz with thermomagnetic switches (5)
15,16	Integrated hydronic kit
00	Without hydronic kit
	Kit with n°1 pump
PA	Pump A (6)
PB	Pump B (6)
PC	Pump C (6)
PD	Pump D (6)
PE	Pump E (6)
PF	Pump F (6)
PG	Pump G (6)
PH	Pump H (6)
PI	Pump I (6)
PJ	Pump J (6)

Field	Description
	Pump n°1 pump + stand-by pump
DA	Pump A + stand-by pump (6)
DB	Pump B + stand-by pump (6)
DC	Pump C + stand-by pump (6)
DD	Pump D + stand-by pump (6)
DE	Pump E + stand-by pump (6)
DF	Pump F + stand-by pump (6)
DG	Pump G + stand-by pump (6)
DH	Pump H + stand-by pump (6)
DI	Pump I + stand-by pump (6)
DJ	Pump J + stand-by pump (6)
	Kit with storage tank and n°1 pump
AA	Storage tank and pump A (6)
AB	Storage tank and pump B (6)
AC	Storage tank and pump C (6)
AD	Storage tank and pump D (6)
AE	Storage tank and pump E (6)
AF	Storage tank and pump F (6)
AG	Storage tank and pump G (6)
AH	Storage tank and pump H (6)
AI	Storage tank and pump I (6)
AJ	Storage tank and pump J (6)
	Kit with storage tank and n°1 pump + stand-by pump
BA	Storage tank with pump A + stand-by pump (6)
BB	Storage tank with pump B + stand-by pump (6)
BC	Storage tank with pump C + stand-by pump (6)
BD	Storage tank with pump D + stand-by pump (6)
BE	Storage tank with pump E + stand-by pump (6)
BF	Storage tank with pump F + stand-by pump (6)
BG	Storage tank with pump G + stand-by pump (6)
BH	Storage tank with pump H + stand-by pump (6)
BI	Storage tank with pump I + stand-by pump (6)
BJ	Storage tank with pump J + stand-by pump (6)

(1) Water produced up to 39.2 °F.

(2) Processed water temperature up to 39.2°F. The standard electronic expansion valve with a size from 2000 to 3000.

(3) During operation, a water temperature no lower than 95°F must always be guaranteed on the heat exchanger inlet. The option is not compatible with the "no" fan.

(4) Not available for silenced versions.

(5) Available only with fans J for sizes from 0800 to 1200.

(6) For the availability of the pumps in the different configurations, refer to the Magellano selection program or the technical documentation.

	Version	Fans	Power supply	0800	0900	1000	1100	1200	1400	1600
Air flow rate heating mode	A	°	6/9	cfm	-	-	-	-	-	-
	A	°	7/8	cfm	71,588	95,450	95,450	95,450	119,313	143,176
	A	J	6/9	cfm	73,034	97,378	97,378	97,378	-	-
	A	J	7/8	cfm	73,034	97,378	97,378	97,378	121,723	146,064
	E	°	6/7/8/9	cfm	-	-	-	-	-	-
	E	J	6/9	cfm	43,907	58,556	58,556	58,556	-	-
	E	J	7/8	cfm	43,907	58,556	58,556	58,556	73,196	87,838
- not available										
	Version	Fans	Power supply	1800	2000	2200	2400	2600	2800	3000
Type	A	°/J	6/7/8/9	type	axial	axial	axial	axial	axial	axial
	E	°/J	6/7/8/9	type	axial	axial	axial	axial	axial	axial
Number	A	°/J	6/9	no.	-	-	-	-	-	-
	A	°/J	7/8	no.	14	14	16	16	18	20
	E	°	6/7/8/9	no.	-	-	-	-	-	-
	E	J	6/9	no.	-	-	-	-	-	-
	E	J	7/8	no.	14	14	16	16	18	20
	A	°/J	6/9	cfm	-	-	-	-	-	-
Air flow rate cooling mode	A	°	7/8	cfm	179,424	179,424	205,056	205,056	232,478	232,478
	A	J	7/8	cfm	184,249	184,248	210,570	210,570	240,303	240,303
	E	°	6/7/8/9	cfm	-	-	-	-	-	-
	E	J	6/9	cfm	-	-	-	-	-	-
Air flow rate heating mode	E	J	7/8	cfm	111,192	111,192	127,076	127,076	136,352	136,352
	A	°/J	6/9	cfm	-	-	-	-	-	-
	A	°	7/8	cfm	167,036	167,089	190,900	190,895	223,940	223,940
	A	J	7/8	cfm	170,410	170,406	194,749	194,749	223,940	223,940
	E	°	6/7/8/9	cfm	-	-	-	-	-	-
	E	J	6/9	cfm	-	-	-	-	-	-
	E	J	7/8	cfm	102,247	102,246	117,113	117,118	126,255	126,255
- not available										

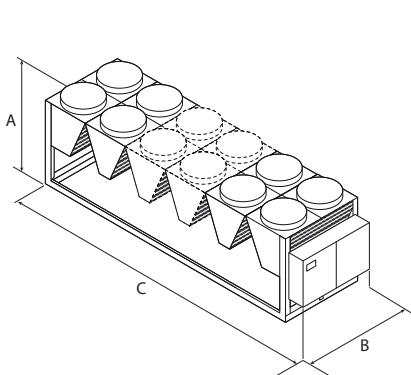
SOUND DATA

Size	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	
Sound data calculated in cooling mode (1)															
Sound power level	A	dB(A)	89	91	93	94	95	95	94	96	98	97	96	97	98
	E	dB(A)	84	89	91	92	94	93	93	95	97	95	94	96	98

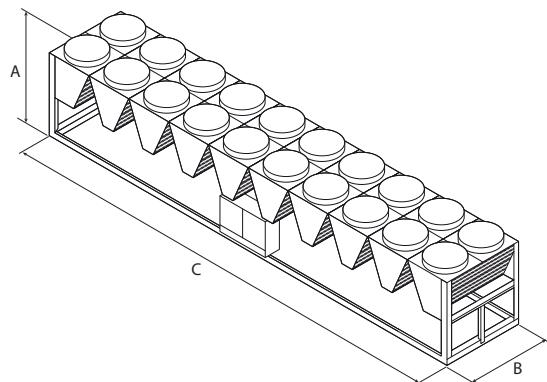
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2. Sound pressure (cold functioning) measured in free field, 10 m / 33 ft away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

NRB 0800-2800 HA/HE



NRB 3000 HA/HE



Size	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
Integrated hydronic kit: 00														
Dimensions and weights	A,E	in	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
A	A,E	in	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
B	A,E	in	156.3	203.1	203.1	203.1	250.0	296.9	343.7	343.7	390.6	437.4	437.4	468.5

Aermec reserves the right to make any modifications deemed necessary.
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