AERMEC

NRL
200/360

Reversible Heat Pump
Air/Water for outdoor installation
Scroll compressors, Plate exchangers, Axial fans
Cooling capacity from 141.6 to 245.6 ton
Heating capacity from 1.771.379 to 3.401.018 BTU/h

60Hz | HFC Refrigerant R410A | Intertek | AHRI

- **HIGH EFFICIENCY VERSION**
- **LOW NOISE HIGH EFFICIENCY VERSION**
- **2/4 REFRIGERANT CIRCUITS**
- **VERSION WITH BUILT-IN HYDRONIC KIT**

VERSION AND FEATURES

MODELS
- **NRL_H** Heat pump

VERSIONS
Without hydronic kit system side.
- **NRL_A** High efficincy chillers
- **NRL_E** High efficincy Low noise chillers

RECOVERY
- **NRL"A-E"_D** with desuperheater
- **NRL"A-E"_T** with total heat recovery

OPERATING LIMIT
Cooling mode
Max. external air temperature 114,8°F
Min. temperature of water produced 17,6°F
Heating mode
Max. external air temperature 107,6°F
Max. temperature of water produced 131°F

FEATURES
- High-efficiency scroll compressor with crank case heater
- High efficiency heat exchangers with trace heating as standard
- Axial flow fans for quiet operation
- Microprocessor control system:
  - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory)
  - Automatic rotation of compressors and pumps based on operating hours
  - Load limiting safety control
  - Low and high pressure transducers (standard for all units)
  - Automatic reset of alarms before tripping
  - Display in 4 languages
  - Alarm history
- Metal enclosure with anti-corrosion polyester paint.

ACCESSORIES

MECHANICAL ACCESSORIES
- **AVX:** Sprung anti-vibration supports. Select the AVX model from the compatibility table.
- **GP:** Protection grille, protects the external coil from accidental knocks.

ELECTRICAL ACCESORIES
- **AER485**: 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;
- **DRE:** It allows the reduction of peak power necessary for the machine during start-up phase.
  Accessories can only be fitted in the factory.
- **DUALCHILLER:** Simplified control system to switch on and off, and command, two chillers (using Aermec GR3 command) in a single system, as if they were a single unit.
- **MULTICHILLER:**
  Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **PGS:** Daily/Weekly Programmer.
  Allows you to programme two time bands per day (two switch on/off cycles) and to have differentiated programming for each day of the week.
- **PRM1-PRM2 FACTORY FITTED ACCESSORY.** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

Compatibility with the VMF system.
For further system information please refer to the specific documentation.

For more information please contact us.

ACCESSORY COMPATIBILITY

Hydronic Kit	NRL-H 200	NRL-H 225	NRL-H 250	NRL-H 280	NRL-H 300	NRL-H 330	NRL-H 360
00	AVX 7015	AVX 7017	AVX 7019	AVX 7019	AVX 7019	AVX 798	AVX 798
P2 / P4	AVX 7015	AVX 7017	AVX 7021	AVX 7021	AVX 7021	AVX 800	AVX 800
P1 / P3	AVX 7015	AVX 7017	AVX 7021	AVX 7021	AVX 7021	AVX 800	AVX 800
02 / 04	AVX 7016	AVX 7018	AVX 7020	AVX 7020	AVX 7020	AVX 799	AVX 799
01 / 03	AVX 7016	AVX 7018	AVX 7020	AVX 7020	AVX 7020	AVX 799	AVX 799

UNIT CONFIGURATOR

Field **DESCRIPTION**

1,2,3 **NRL**

4, 5, 6 **SIZE**

200 - 225 - 250 - 280 - 300 - 330 - 360

7 **COMPRESSOR**

0 R410A standard compressor

8 **THERMOSTATIC VALVE**

° standard mechanical thermostatic valve (min. water out temp 39 °F)

X electronic thermostatic valve (min. water out temp 39 °F, contact the factory for lower

9 **MODELS**

H Heat Pump

10 **Heat recovery**

° without recovery

D with desuperheater

11 **VERSION**

A High efficiency

E High efficiency low noise (data on demand)

12 **COILS**

° Alluminium

R Copper

S Copper tin plated

V Epoxy coated

13 **FANS**

° Standard

I Fan speed modulating for condensation control

14 **SUPPLY**

6 230/3/60 with magnet circuit breakers (only for size 100 to 180)

7 460/3/60 with magnet circuit breakers

8 575/3/60 with magnet circuit breakers

15,16 **HYDRONIC KIT**

00 without hydronic kit

01 tank and single low head pump

02 tank and single low head pump and reserve pump

03 tank and single high head pump

04 tank and single high head pump and reserve pump

P1 single low head pump

P2 single low head pump and reserve pump

P3 single high head pump

P4 single high head pump and reserve pump

Configurations not allowed:

"I" ventilation mandatory for Desuperheater "D" option

TECHNICAL DATA

Mod. NRL H	Vers.		200	225	250	280	300	330	360
Cooling capacity	HA	Tons	141.55	162.53	183.52	197.05	211.16	226.24	245.62
Total power input	HA	(kW)	174.00	199.10	224.20	242.80	261.80	303.98	346.65
Water flow rate	HA	gpm	339	390	440	472	507	542	589
Pressure drop	HA	psi	7	5	5	5	5	6	7
ENERGY INDICES									
EER	All	Watt/Watt	9.77	9.81	9.83	9.75	9.71	8.94	8.51
IPLV	All	BTU/Watt	13.75	13.70	13.74	13.61	13.52	13.32	12.94
Heating capacity	HA	BTU/h	1.771.379	2.004.292	2.237.205	2.427.671	2.621.412	3.055.095	3.401.018
Total power input	HA	(kW)	179.42	206.40	233.38	253.82	268.94	314.82	346.80
Water flow rate	HA	(gpm)	393	445	497	539	582	678	775
Pressure drop	HA	p.s.i.	9	6	6	7	7	10	12
ENERGY INDICES									
COP	All	Watt/Watt	2.89	2.85	2.81	2.82	2.86	2.84	2.87
IPLV	All	BTU/Watt	13.75	13.70	13.74	13.61	13.52	13.32	12.94

Mod. NRL	Vers.		200	225	250	280	300	330	360
SCROLL COMPRESSORS									
Quantity / circuits	All	n°/ n°	8/4	8/4	8/4	8/4	8/4	10/4	12/4
Refrigerant	type	All	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Charges	A	lbs C1	77.16	77.16	121.25	121.25	160.94	160.94	160.94
	A	lbs C2	77.16	77.16	121.25	160.94	160.94	160.94	160.94
	A	lbs C3	77.16	121.25	121.25	121.25	160.94	160.94	160.94
	A	lbs C4	77.16	121.25	121.25	160.94	160.94	160.94	160.94
	HA	lbs C1	123.46	123.46	180.78	180.78	187.39	187.39	187.39
	HA	lbs C2	123.46	123.46	180.78	180.78	187.39	187.39	187.39
	HA	lbs C3	123.46	180.78	180.78	180.78	187.39	187.39	187.39
	HA	lbs C4	123.46	180.78	180.78	180.78	187.39	187.39	187.39
EXCHANGERS USER SIDE									
Water connections (in/out)	All	Ø	4"	4"	4"	4"	4"	4"	4"
STANDARD FANS °									
Numbers	A	n°	8	12	16	16	16	16	16
	HA	n°	12	14	16	16	16	16	16
Air flow rate	A	cfm	95344	143960	192576	189272	185968	185968	185968
	HA	cfm	147264	173224	199184	199184	199184	198240	195408
SOUND DATA									
Sound pressure	A	dB(A)	60	63	65	66	67	67	67
	HA	dB(A)	96	96	97	98	99	99	99
Sound power	A	dB(A)	92	95	97	98	99	99	99
	HA	dB(A)	64	64	65	66	67	67	67

COOLING (AHRI CONDITIONS)

Outlet water temperature	6.7°C / 44.6°F
Flow rate	0.043l/s per kW
External temperature	35°C / 95°F

HEATING (AHRI CONDITIONS)

Inlet water temperature	40°C / 104°F
Outlet water temperature	45°C / 113°F
External air temperature	7°C d.b / 6°C w.b.

AHRI CONDITIONS

leaving water 6.7°C/44.6°F
flow rate 0.043 l/s per kW (full load)
Load 100% air 35°C /95°F
Load 75% air 26.7°C/80.06°F
Load 50% air 18.3°C /64.94°F
Load 25% air 12.8°C/55.04°F

SOUND PRESSURE

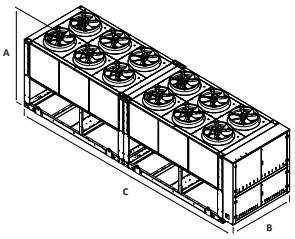
Sound pressure in free field, at 33ft distance from the external surface of the unit.

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

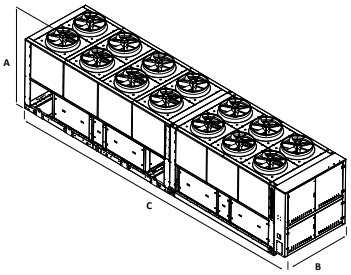
Dimensions

Mod. NRL H				200	225	250	280	300	330	360
Height	A	All	in	96	96	96	96	96	96	96
Width	B	All	in	87	87	87	87	87	87	87
Depth	C	A	in	252	344	437	437	437	437	437
		HA	in	319	378	437	437	437	437	437
Weight (kg)		A	lbs	9.878	12.348	14.774	15.303	15.788	16.251	16.979
		HA	lbs	12.458	14.399	16.317	16.405	16.405	17.023	17.750

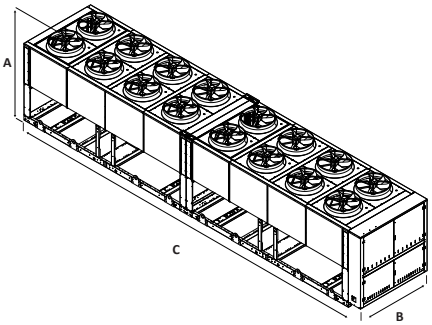
NRL 200 HA



NRL 225 HA



NRL 250-280-300-330-360 HA



Aermec S.p.A.
Via Roma, 996
37040 Bevilacqua (VR) - Italy
Tel. + 39 0442 633111 - Fax +39 0442 93577