

## NRL 200/360

**Chiller Free-cooling mode**  
**Air/Water for outdoor installation**  
**Scroll compressors, Plate exchangers, Axial fans**  
**Cooling capacity chiller mode from 125.59/ 236.17 tons**  
**Cooling capacity free-cooling mode from 86.78/ 168.23 tons**



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

### VERSION AND FEATURES

#### MODELS

- **NRL\_F** Free-cooling

#### VERSIONS

Without hydronic kit system side.

- **NRL\_A** High efficiency
- **NRL\_E** High efficiency Low noise

#### RECOVERY

- **NRL"A-E"** ° Without recovery

#### OPERATING LIMIT

##### Chiller mode

Max. external air temperature 114,8°F

Min. temperature of water produced 21,2°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
  - 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:** Group of anti-vibration, to be installed under the base.
- **GP:** Protection grille, protects the external coil from accidental knocks.

#### ELECTRICAL ACCESSORIES

- **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;

ted 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.

- **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.

- **AER485:** RS-485 interface for supervision systems with MODBUS protocol.

*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	200	225	250	280	300	330	360
<b>00</b>							
Model with Hydronic kit (00)	AVX 770	AVX 776	AVX 782	AVX 788	AVX 794	AVX 801	AVX 801
Model with Hydronic kit (P3/P4)	AVX 772	AVX 778	AVX 784	AVX 790	AVX 796	AVX 803	AVX 803
Model with Hydronic kit (03/04)	AVX 771	AVX 777	AVX 783	AVX 789	AVX 795	AVX 802	AVX 802

## 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)
- Y** mechanical thermostatic valve (water out temp range 21 ÷ 39 °F)
- X** electronic thermostatic valve (min. water out temp 39 °F) contact the factory for lower temperature

**9** **MODELS**

**F** Free-cooling

**10** **Heat recovery**

° Without recovery

**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**

**I** Fan speed modulating for condensation control

**14** **SUPPLY**

- 6** 230/3/60 with magnet circuit breakers (data on demand for sizes 090 to )
- 7** 460/3/60 with magnet circuit breakers
- 8** 575/3/60 with magnet circuit breakers

**15,16** **HYDRONIC KIT**

- 00** Without water storage
- 03** Water storage tank and high-head single pump
- 04** Water storage tank, with high-head pump and reserve pump
- P3** Without water storage tank, with high-head pump
- P4** Without water storage tank, with high-head pump and reserve pump

## TECHNICAL DATA

Mod. NRL	Vers.		200	225	250	280	300	330	360
Cooling capacity	A	Tons	125.59	144.71	163.83	173.99	206.79	219.87	236.17
Total power input	A	(kW)	204.66	229.25	253.84	284.98	428.37	338.93	387.99
Water flow rate	A	gpm	301	347	392	417	495	527	566
Pressure drop	A	psi	12.39	12.69	12.69	13.10	14.00	14.04	15.66
<b>ENERGY INDICES</b>									
EER	BTU/Wat	Alls	7.37	7.58	7.75	7.33	5.80	7.79	7.31
IPLV	BTU/Wat	Alls	10.24	10.19	10.23	10.42	9.90	10.19	10.04

Mod. NRL	Vers.		200	225	250	280	300	330	360
Cooling capacity	FA	Tons	86.78	92.67	98.57	111.75	130.33	148.17	168.23
Total power input	FA	(kW)	17.73	21.97	26.22	26.58	26.58	34.71	34.71
Water flow rate	FA	(gpm)	301	347	393	417	496	527	566
Pressure drop	FA	psi	16	17	17	18	20	20	21
<b>ENERGY INDICES</b>									
EER	BTU/Wat	Alls	58.80	50.66	45.15	50.50	58.90	51.27	58.21

Mod. NRL	Vers.		200	225	250	280	300	330	360
<b>SCROLL COMPRESSORS</b>									
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	77.2	77.2	99.2	99.2	105.8	145.5	141.1
	A	lbs C2	77.2	77.2	47	103.6	105.8	154.3	141.1
	A	lbs C1	77.2	99.2	99.2	99.2	105.8	145.5	141.1
	A	lbs C2	77.2	103.6	103.6	103.6	105.8	154.3	141.1
<b>EXCHANGERS USER SIDE</b>									
Water connections (in/out)	All	Ø	3"	3"4"	4"	4"	4"	4"	4"
<b>STANDARD FANS °</b>									
Numbers	A	n°	8	10	12	12	12	16	16
Air flow rate	A	cfm	117716	140788	137492	137492	186932	186932	317600
<b>SOUND DATA</b>									
Sound pressure	A	dB(A)	61	63	64	65	65	66	66
Sound power	A	dB(A)	93	94	96	97	97	98	98

■ Cooling (AHRI STANDARD CONDITIONS): Outlet water temperature 6.7°C/44.6°F; Flow rate 0.043l/s per kW; External air temperature 35°C/95°F.

■ Freecooling (100%) (AHRI STANDARD CONDITIONS): Inlet water temperature 15°C/59°F; Outside air temperature 2°C/35.6°F; Compressors off.

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

Data referred to no pump version.

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.

Sound pressure: Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program Magellan or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

Dimensions

Mod. NRL				200	225	250	280	300	330	360
Height	A	All	in	96.46	96.46	96.46	96.46	96.46	96.46	96.46
Width	B	All	in	86.61	86.61	86.61	86.61	86.61	86.61	86.61
Depth	C	A	in	251.97	285.43	318.90	318.90	318.90	437.01	437.01
Weight (kg)		A	lbs	11.709	13.142	14.553	14.972	15.479	18.853	19.889

