NRL
028/075

Air cooled chillers
Cooling only / Heat pump
Outdoor unit
Scroll compressor
Axial fans
Cooling capacity 13,71/49,90 tons
Heating capacity 165967/600571 BTU/h

R410A

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

VERSION AND FEATURES

MODELS
- **NRL_°** Cooling only
- **NRL_H** Heat pump
- **NRL_C** Without evaporator

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.
- **VT:** Group of anti-vibration, to be installed under the base.
- **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 028	NRL 030	NRL 033	NRL 035	NRL 050	NRL 055	NRL 060	NRL 065	NRL 070	NRL 075
00	VT 17	VT 17	VT 17	VT 17	VT 13	VT 13	VT 22	VT 22	VT 22	VT 23
P2 / P4	VT 17	VT 17	VT 17	VT 17	VT 13	VT 13	VT 22	VT 22	VT 22	VT 23
P1 / P3	VT 17	VT 17	VT 17	VT 17	VT 13	VT 13	VT 22	VT 22	VT 22	VT 23
02 / 04	VT 13	VT 13	VT 13	VT 13	VT 10	VT 10	VT 22	VT 22	VT 22	VT 23
01 / 03	VT 13	VT 13	VT 13	VT 13	VT 10	VT 10	VT 22	VT 22	VT 22	VT 23

Hydronic Kit	NRL-H 028	NRL-H 030	NRL-H 033	NRL-H 035	NRL-H 050	NRL-H 055	NRL-H 060	NRL-H 065	NRL-H 070	NRL-H 075
00	VT 17	VT 17	VT 17	VT 17	VT 13	VT 13	VT 22	VT 22	VT 22	AVX 7001
P2 / P4	VT 17	VT 17	VT 17	VT 17	VT 13	VT 13	VT 22	VT 22	VT 22	AVX 7001
P1 / P3	VT 17	VT 17	VT 17	VT 17	VT 13	VT 13	VT 22	VT 22	VT 22	AVX 7001
02 / 04	VT 13	VT 13	VT 13	VT 13	VT 10	VT 10	VT 22	VT 22	VT 22	AVX 7002
01 / 03	VT 13	VT 13	VT 13	VT 13	VT 10	VT 10	VT 22	VT 22	VT 22	AVX 7002

UNIT CONFIGURATOR

Field **DESCRIPTION**

1,2,3 **NRL**

4,5,6 **SIZE**

028 - 030 - 033 - 035 - 050 - 055 - 060 - 065 - 070 - 075

7 **COMPRESSOR**

0 R410A standard compressor

8 **THERMOSTATIC VALVE**

° Standard mechanical thermostatic valve with produced water up to 39,2°F / +4°C

Y Mechanical thermostatic valve with produced water from 39,2°F / +4°C to -42,8°F / -6°C

X Electronic thermostatic valve min. Water out temp 39,2°F / +4°C, (contact the factory for lower temperatures)

9 **MODELS**

° Cooling only

H Heat pump

C Without evaporator (data on demand)

10 **HEATHING RECOVERY**

° Without Recovery

D With Desuperheater

T With Total Heat Recovery

11 **VERSION**

A High efficiency (not available for size 028 ÷ 035)

E High efficiency low noise (data on demand for size 050 ÷ 075)

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

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:

YD / YT / YH

HT / HC

CT / CD /

"I" ventilation mandatory vers.E sizes from 050 to 075 (units cooling only and heat pump)

"I" ventilation mandatory for Desuperheater "D" option

"E" version disponible for sizes from 050 to 075

TECHNICAL DATA

Mod. NRL				028	030	033	035	050	055	060	065	070	075
Cooling capacity		A	tons	-	-	-	-	25,51	30,14	37,16	41,74	46,86	49,90
		E	tons	13,71	16,01	18,40	23,52	-	-	-	-	-	-
Total input power		A	kW	-	-	-	-	31,00	36,50	44,30	50,90	56,80	61,20
		E	kW	16,10	18,70	21,50	27,80	-	-	-	-	-	-
Water flow rate		A	gpm	-	-	-	-	61	72	89	100	112	120
		E	gpm	33	38	44	56	-	-	-	-	-	-
Pressure drops		A	p.s.i.	-	-	-	-	5	5	8	9	9	10
		E	p.s.i.	4	4	4	6	-	-	-	-	-	-
ENERGY INDICES													
EER		A	BTU/h/W	-	-	-	-	9,88	9,92	10,08	9,85	9,91	9,79
		E	BTU/h/W	10,22	10,28	10,28	10,14	-	-	-	-	-	-
IPLV		A	BTU/h/W	13,42	13,42	13,46	13,42	14,72	14,86	15,51	15,06	14,65	14,21

Mod. NRL-H				028	030	033	035	050	055	060	065	070	075
Cooling capacity		HA	tons	-	-	-	-	24,85	28,95	35,15	40,78	45,13	49,56
		HE	tons	13,05	15,44	17,54	22,15	-	-	-	-	-	-
Total input power		HA	kW	-	-	-	-	30,10	36,10	42,80	49,40	55,80	60,70
		HE	kW	15,60	18,10	20,80	26,80	-	-	-	-	-	-
Water flow rate		HA	gpm	-	-	-	-	60	69	84	98	108	119
		HE	gpm	31	37	42	53	-	-	-	-	-	-
Pressure drops		HA	p.s.i.	-	-	-	-	3	4	5	7	8	9
		HE	p.s.i.	2	3	2	3	-	-	-	-	-	-
ENERGY INDICES													
EER		HA	BTU/h/W	-	-	-	-	9,92	9,63	9,86	9,91	9,71	9,81
		HE	BTU/h/W	10,05	10,25	10,13	9,93	-	-	-	-		-
IPLV		HA	BTU/h/W	13,32	13,42	13,39	13,22	14,75	14,45	15,27	15,16	14,34	14,21
Heating capacity		HA	BTU/h	-	-	-	-	310778	358582	430885	481999	549901	600571
		HE	BTU/h	165967	196710	220561	267341	-	-	-	-	-	-
Total input power		HA	kW	-	-	-	-	31,48	37,69	44,70	51,04	58,10	61,35
		HE	kW	16,08	19,08	21,39	28,45	-	-	-	-	-	-
Water flow rate		HA	gpm	-	-	-	-	60	69	84	98	108	119
		HE	gpm	31	37	42	53	-	-	-	-	-	-
Pressure drops		HA	p.s.i.	-	-	-	-	3	4	5	7	8	9
		HE	p.s.i.	2	3	2	3	-	-	-	-	-	-
ENERGY INDICES													
COP		HA	W/W	-	-	-	-	2,89	2,79	2,83	2,77	2,77	2,87
		HE	W/W	3,03	3,02	3,02	2,75	-	-	-	-	-	-
IPLV		HA	BTU/h/W	13,32	13,42	13,39	13,22	14,75	14,45	15,27	15,16	14,34	14,21

Mod. NRL				028	030	033	035	050	055	060	065	070	075
SCROLL COMPRESSORS													
Compressors		All	n°	2	2	2	2	3	3	4	4	4	4
Circuits		All	n°	2	2	2	2	2	2	2	2	2	2
Refrigerant		All	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Charges	C1	A	lb	14,55	18,96	18,74	27,12	27,56	36,60	39,68	39,68	52,47	52,91
	C2	E	lb	14,55	18,96	18,74	27,12	27,56	36,60	39,68	39,68	52,47	56,22
	C1	HA	lb	26,68	33,70	33,70	38,58	38,48	34,14	57,32	57,32	57,32	97,00
	C2	HE	lb	26,68	33,70	33,70	38,58	34,17	34,17	57,32	57,32	57,32	97,00
EXCHANGERS USER SIDE													
Water connections (in/out)		All	Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"
STANDARD FANS °													
Numbers		All	n°	6	6	8	8	2	2	3	3	3	3
Air flow rate		All	cfm	13570	14632	18408	17422	23600	23246	36344	36344	35164	35754
SOUND DATA													
Sound pressure		All	dB(A)	-	-	-	-	51	52	53	54	54	54
		All	dB(A)	42	43	45	46	-	-	-	-	-	-
Sound power		All	dB(A)	-	-	-	-	83	84	85	86	86	86
		All	dB(A)	74	75	77	78	-	-	-	-	-	-

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 b.s / 6°C b.u.

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 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

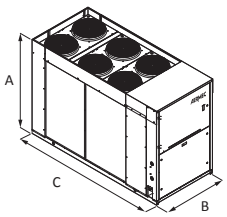
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

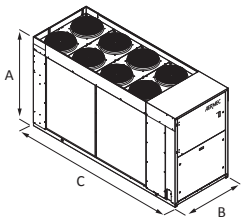
DIMENSIONS

Mod. NRL				028	030	033	035	050	055	060	065	070	075
Height	A	A-E	in	63	63	63	63	74	74	74	74	74	78
Width	B	A-E	in	43	43	43	43	43	43	43	43	43	59
Depth	C	A-E	in	96	116	116	116	116	116	156	156	156	171
Weight		A-E	lbs	1402	1548	1567	1711	1870	2075	2425	2447	2447	3571

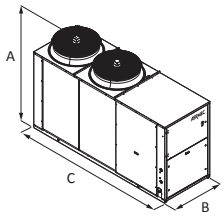
• NRL 028 E-HE
• NRL 030 E



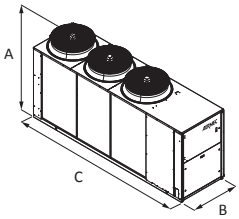
• NRL 033 - 035 E
• NRL 030 - 033 - 035 HE



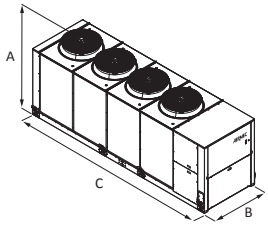
• NRL 050 - 055 A
• NRL 050 - 055 HA



• NRL 060 - 065 - 070 - 075 A
• NRL 060 - 065 - 070 HA



• NRL 075 HA



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Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy
Tel 0442633111 - Fax 044293730
www.aermec.com