

R407C



Aermec adheres to the EUROVENT Certification Programme. The products concerned appear in the EUROVENT Certified Products Guide.



• STANDARD VERSION • VERSION EQUIPPED WITH WATER PUMP

• VERSION EQUIPPED WITH WATER PUMP AND STORAGE TANK

Features

- Available in 6 different sizes
- Cooling only, heat pump and air cooled condensing versions
- All versions are supplied for use with R407C
- Cooling only version equipped with partial or total heat recovery is available
- 4 versions available:
 - Standard with supplied water filter
 - With water pump only and water filter already mounted
 - With low head pumping unit, 700 litre storage tank with antifreeze heaters, water filter already mounted, flow switch and expansion tank
 - With high head pumping unit, 700 litre storage tank with antifreeze heaters, water filter already mounted, flow switch and expansion tank
- All versions except the motocondensing one can be ordered for low temperature operation for production of chilled water from 4 °C down to -6 °C. This option must be specified at the time of ordering
- High efficiency scroll compressors with low power consumption
- Modular microprocessor control system
- Functional parameters can be displayed in any of four languages
- Simplified remote control panel. All main functions of the unit, alarms included, are possible
- High efficiency plate type heat exchangers
- Evaporator electric heating element
- Electric heater for the compressor carter
- High pressure transducer
- Low pressure transducer (NRA H only)
- Axial flow fan units for extremely quiet operation
- Compact size
- Metallic protective cabinet with rustproof polyester paint

Accessories

- **AER485:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Spring anti-vibration mounts. Select the AVX model by using the compatibility table.
- **DCPX:** Low temperature device for correct cooling mode operation with ambient temperatures from less than 20 °C. **Standard on models with Desuperheaters (D) and Silenced (L).**
- **DRE:** Electronic peak current reducer. **It must be factory-mounted.**
- **GP:** Safety grille: protects external coils from accidental impact.
- **PGS:** Daily/weekly programmer with facility to program two daily on/off cycles and set different parameters for each day of the week.
- **RIF:** Current rephaser. Parallel connection with the motor makes the reduction of input current possible. **This can only be installed when the machine is being made and must therefore be specified when the order is placed.**
- **ROMEO:** (Remote Overwatching Modem Enabling Operation) is a device that enables a remote control of a chiller from an ordinary WAP mobile phone. Furthermore it allows to send alarm or pre-alarm SMS messages up to 3 GSM mobile phones which may not be equipped with WAP. **This device includes AER485 accessory.**
- **TP 1:** Low pressure transducer: to provide working pressure readout on the microprocessor card display (one required for each circuit).

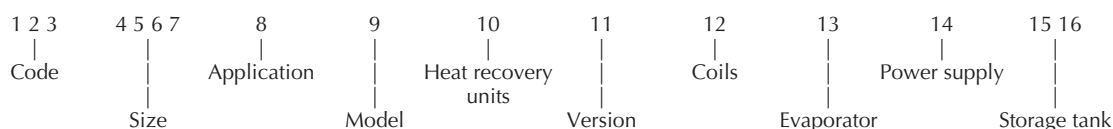
Mod. NRA	Compatibilità accessori							
	800	900	1000	1250	1400	1500	1650	1800
AER485	✓	✓	✓	✓	✓	✓	✓	✓
DCPX 29	✓	✓	✓					
DCPX 30				✓	✓	✓	✓	✓
DRE 25	✓ (x4)	✓ (x2)						
DRE 30		✓ (x2)	✓ (x4)			✓ (x6)		
DRE 31					✓ (x3)		✓ (x3)	
DRE 38				✓ (x4)	✓ (x2)		✓ (x3)	✓ (x6)
GP 260	✓	✓	✓					
GP 350				✓	✓	✓		
GP 500							✓	✓
PGS	✓	✓	✓	✓	✓	✓	✓	✓
RIF	64	74	84	66	76	86	86	86
ROMEO	✓	✓	✓	✓	✓	✓	✓	✓
TP 1 (di serie su NRA H)	✓ (x2)	✓ (x2)	✓ (x2)	✓ (x2)	✓ (x2)	✓ (x2)	✓ (x2)	✓ (x2)

AVX	S.a	C.a	P1	P2	P3	P4	
0800	151	152	151	151	151	151	N.B. = between brackets, the quantity necessary
0900	151	152	151	151	151	151	S.a = without storage tank
1000	151	152	151	151	151	151	C.a = with storage tank
1250	153	154	153	153	153	153	
1400	153	154	153	153	153	153	
1500	153	154	153	153	153	153	
1650 °	601	602	601	603	601	603	P1 - P2 -P3 - P4 = with pump
1800 °	604	602	604	605	604	605	
1650 A-L-H-HL	604	602	605	606	605	606	
1800 A-L-H-HL	604	602	605	606	605	606	

Selection

By combining the various options, each model can be configured exactly to match even the most specific system requirements.

Configuration rules:



Sigla:

NRA

Grandezza:

0800, 0900, 1000, 1250, 1400, 1500, 1650, 1800

Application:

- ° - Standard with produced water above +4 °C
- Y - Low temperature with produced water down to -6 °C

Model:

- ° - Cooling only
- H - Heat pump

Heat recovery units:

- ° - Without heat recovery units
- D - With desuperheaters
- T - With total recovery units

Version:

- ° - Standard
- A - High temperature
- L - Silenced

Coils:

- ° - Aluminium
- R - Copper
- S - Tinned copper
- V - Painted copper / aluminium version

Evaporator:

- ° - To PED standards
- C - Without evaporator

Warning:

- standard options are shown by symbol °;
- for cooling only versions, it is possible only the combination between options Y and A (please, contact the Headquarter for particular needs);
- following options are not available for heat pump version: Y, A and C.

Commercial code example: **NRA1000R402**

This code identifies an NRA unit, size 1000, with copper condensing coils, evaporator to PED standard, with electrical panel for compressors with 3~230V 50Hz motors and low head storage tank and standby pump.

Note that as each option is precisely identified, it is not necessary to specify standard options (shown with °) in the commercial code.

Technical data

Mod. NRA	Vers.	800H	900H	1000H	1250H	1400H	1500H	1650H	1800H
Cooling capacity (kW)	°	196	220	242	294	329	365	420	470
	A	-	-	-	-	-	-	-	-
	L	175	196	217	262	294	326	384	430
Total input power (kW)	°	81,0	89,0	97,0	121,0	133,5	146,0	166	182
	A	-	-	-	-	-	-	-	-
	L	88,5	98,0	107,0	133,0	147,0	160,5	177	194
Water flow rate (l/h)	°	33710	37840	41620	50570	56590	62780	72240	80840
	A	-	-	-	-	-	-	-	-
	L	30100	33710	37320	45060	50570	56070	66050	73960
Pressure drops (kPa)	°	29,6	25,3	29,4	29,7	26,4	30,4	35,8	38,6
	A	-	-	-	-	-	-	-	-
	L	23,6	20,2	23,5	23,7	21,1	24,3	29,8	32,5
Working current (A)	°	142	156	171	213	235	257	288	314
	A	-	-	-	-	-	-	-	-
	L	146	163	180	219	245	270	298	323
Heating capacity (kW)	H - HL	230	257	284	345	386	426	480	534
Total input power (kW)	H - HL	89,5	98,5	107,5	134,0	148,0	161,5	187/-	206/-
Water flow rate (l/h)	H - HL	39560	44200	48850	59340	66390	73270	82560	91850
Pressure drops (kPa)	H - HL	43,7	40,6	43,4	43,4	42,1	44,7	66,7	71,3
Peak current (A)	H - HL	151	166	180	233	252	270	317-301	345-329
Total air flow rate (m³/h)	°	86000	83000	80000	129000	120500	115000	162000	160000
	A	-	-	-	-	-	-	-	-
	L	44000	50000	56000	68000	76000	84000	100000	112000
Compressors (n.)	Tutte	4	4	4	4	5	6	6	6
	°	200	219	237	285	322	355	395	423
Max. current (A)	A	-	-	-	-	-	-	-	-
	L	200	219	237	300	328	355	395	423
	°	340	380	420	491	484	515	586	611
Peak current (A)	A	-	-	-	-	-	-	-	-
	L	355	395	435	510	503	538	610	635
Carter electric heater (W)	Tutte	4x130	4x130	4x130	4x130	5x130	6x130	6x130	6x130
Water connections (Ø)*	°	3"	3"	3"	4"	4"	4"	4"	4"
Storage tank capacity (l)	Tutte	700	700	700	700	700	700	700	700
	°	115	110	97	101	80	105	124	105
Effective pressure (kPa) - gr1**	A	-	-	-	-	-	-	-	-
	L	128	128	118	130	116	155	135	118
	°	230	230	213	237	220	185	261	244
Effective pressure (kPa) - gr2**	A	-	-	-	-	-	-	-	-
	L	240	245	235	265	260	230	273	256

** = gr1 (Low head pumping unit); gr2 (High head pumping unit)
The pressure drops and the pressures are calculated in cold mode conditions

Performance values refer to the following conditions:

- Power supply: 400 V
- Cooling:
 - water outlet temperature 7 °C;
 - ambient air temperature 35 °C;
 - Δt = 5 °C.

- Heating:
 - water outlet temperature 50 °C;
 - ambient air temperature 7 °C D.B. 6 °C W.B.;
 - Δt = 5 °C.

* = Victaulic connection (water connection refer to standard version, as for different versions see the technical manual)

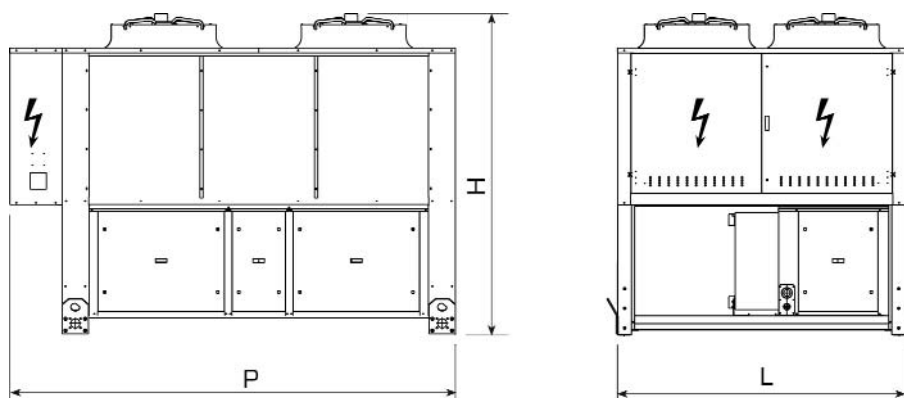
Technical data

Mod. NRA	Vers.	800	900	1000	1250	1400	1500	1650	1800
Cooling capacity (kW)	°	211	236	261	320	363	390	434	480
	A	217	243	268	330	374	400	450	495
	L	190	213	235	292	329	353	404	446
Total input power (kW)	°	84,5	93	102	129	141	153	172	189
	A	80	88	96	124	134	144	166	184
	L	89	98	107	136	148	160	180	199
Water flow rate (l/h)	°	36290	40590	44890	55040	62440	67080	74650	82560
	A	37320	41800	46100	56760	64330	68800	77400	85140
	L	32680	36640	40420	50220	56590	60720	69490	76710
Pressure drops (kPa)	°	34,5	29,5	34	34,5	30,6	35	38	40
	A	36,5	31	36	36,5	32,5	37	41	43
	L	28	24	27,5	29	25	28,5	32,5	34,5
Working current (A)	°	145	160	174	222	242	261	296	323
	A	140	154	168	213	233	253	287	315
	L	151	166	180	229	250	270	301	330
Total air flow rate (m³/h)	°	86000	83000	80000	126000	120500	115000	170000	168000
	A	80000	78000	76000	115000	111500	111000	162000	160000
	L	44000	50000	56000	68000	76000	84000	100000	112000
Compressors (n.)	Tutte	4	4	4	4	5	6	6	6
	°	200	219	237	285	322	355	395	423
Max. current (A)	A	200	219	237	285	322	355	395	423
	L	188	207	225	269	304	340	373	400
	°	343	383	423	487	470	519	569	584
Peak current (A)	A	340	373	406	475	458	511	555	569
	L	342	382	422	486	469	522	568	582
	°	343	383	423	487	470	519	569	584
Carter electric heater (W)	Tutte	4x130	4x130	4x130	6x130	5x130	6x130	6x130	6x130
Water connections (Ø)*	°	3"	3"	3"	4"	4"	4"	4"	4"
Storage tank capacity (l)	Tutte	700	700	700	700	700	700	700	700
	°	97	95	82	78	58	68	119	101
Effective pressure (kPa) - gr1**	A	95	90	75	70	45	50	114	95
	L	120	116	102	110	90	122	130	113
	°	215	212	195	215	190	157	257	240
Effective pressure (kPa) - gr2**	A	210	207	185	203	180	142	252	234
	L	232	235	216	245	230	200	267	251
	°	215	212	195	215	190	157	257	240

** = gr1 (Low head pumping unit); gr2 (High head pumping unit)

The pressure drops and the pressures are calculated in cold mode conditions

Dimensions (mm)



Mod. NRA		800	900	1000	1250	1400	1500	1650	1800
Height	H	2450	2450	2450	2450	2450	2450	2450	2450
	L	2200	2200	2200	2200	2200	2200	2200	2200
Width	L	2200	2200	2200	2200	2200	2200	2200	2200
	P	3400	3400	3400	4250	4250	4250	5750	5750
Depth	°	2343	2429	2465	3058	3147	3230	3690	3780
	A	2430	2520	2554	3169	3269	3364	3870	3970
	L	2527	2573	2582	3309	3351	3387	3870	3970
	H	2482	2580	2609	3356	3399	3436	3890	3990
	HL	2492	2589	2619	3366	3409	3466	3890	3990
Weight (kg)	H	2482	2580	2609	3356	3399	3436	3890	3990
	L	2527	2573	2582	3309	3351	3387	3870	3970
	A	2430	2520	2554	3169	3269	3364	3870	3970
	°	2343	2429	2465	3058	3147	3230	3690	3780
	HL	2492	2589	2619	3366	3409	3466	3890	3990

Warning: weights refer to versions without accumulation and pump.

The technical data in this document are not binding.
Aermec S.p.A. reserves the right to make whatever modifications
it deems necessary to improve the product at any time.

Aermec S.p.A.
Via Roma, 44 - 37040 Bevilacqua (VR) - Italy
Tel. +39 04 42 63 31 11 - Telefax +39 044 29 35 66
www.aermec.com