

TECHNICAL MANUAL MANUAL TÉCNICO

Air/water chillers and heat pumps and condensing units with scroll compressors

Enfriadoras y bombas de calor aire agua y motocondensadores con compresores scroll

nra

R407C



2.3 CONFIGURATORE

1,2,3	4,5,6,7	8	9	10	11	12	13	14	15,16
-------	---------	---	---	----	----	----	----	----	-------

NRA 0750 ° ° ° L ° ° ° 00

field 15 - 16

HYDRONIC KIT	
00	Without accumulation
01	Accumulation and low pressure pump
02	Accumulation, low pressure pump and reserve pump
03	Accumulation and high pressure pump
04	Accumulation, high pressure pump and reserve pump
05	Accumulation with holes for integrative resistance, and low pressure pump
06	Accumulation with holes for integrative resistance, low pressure pump and reserve pump
07	Accumulation with holes for integrative resistance, high pressure pump
08	Accumulation with holes for integrative resistance, high pressure pump and reserve pump

field 14

Power supply	
°	3~ 400V-50Hz with thermomagnetic switches
4	3~ 230V-50Hz with thermomagnetic switches
9	3~ 500V-50Hz with thermomagnetic switches

field 13

Evaporator	
°	According to PED standards
C	Condensing (without evap.)

field 12

Coils	
°	- Aluminium
R	- Copper
S	- Tinned copper
V	- Varnished aluminium copper

field 11

Version	
°	Standard
A	High temperature
L	Standard in Silenced operation

field 10

Heat recoverers	
°	Without recoverers
D	Desuperheater
T	Total recovery

field 9

Model	
°	Cooling only
H	Heat pump

field 8

Refrigerant	
°	Standard
Y	Version for low temperature of processed water, down to -6°C

field 4 - 5 - 6 - 7

0275 - 0300 - 0325 - 0350 - 0500 - 0550 - 0600 - 0650 - 0700 - 0750

ROME0

Remote Overwaching Modem Enabling Operation (Remote Overwaching Modem Enabling Operation) is a device that enables a remote control of a chiller from an ordinary mobile phone with WAP browser.

Furthermore it allows to send alarm or pre-alarm SMS up to 3 GSM mobile phones which may not be equipped with WAP browser

TP1 - Low pressure transducer Standard

equipment on heat pump models.

Serves to show the compressor suction pressure value on the microprocessor board display (one per circuit). Located

on the low-pressure side of the refrigerant circuit, disconnects the compressor if anomalous working pressures are detected.

TP2 - High pressure transducer Standard equipment on sizes 500, 550, 600, 650, 700, 750 and on all heat pump models.

Serves to show the compressor discharge pressure value on the microprocessor board display (one per circuit). This adjustable sensor located on the high-pressure side of the refrigerant circuit disconnects the compressor if anomalous working pressures are detected.

DRE - Dispositivo riduzione corrente di spunto.

Electronic peak current reducer.

It must be factory-mounted.

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.

MOD.	ROME0	TP1	TP2	DRE	AER485	PGS	GP	DCPX	RIF	VT	S.a	C.a
VERSIONI STANDARD (*)												
0275	-	-	-	-	-	-	-	-	-	-	-	-
0300	-	-	-	-	-	-	-	-	-	-	-	-
0325	-	-	-	-	-	-	-	-	-	-	-	-
0350	-	-	-	-	-	-	-	-	-	-	-	-
0500	•	• (x2)	Std.	500	•	•	2 (x2)	38	63	4	10	
0550	•	• (x2)	Std.	550	•	•	2 (x2)	38	63	4	10	
0600	•	• (x2)	Std.	600	•	•	2 (x2)	38	64	4	10	
0650	•	• (x2)	Std.	650	•	•	2 (x2)	38	64	4	11	
0700	•	• (x2)	Std.	650	•	•	2 (x2)	38	64	4	11	
0750	•	• (x2)	Std.	750	•	•	2 (x3)	38	64	4	11	

NRA POMPA DI CALORE H												
0275	-	-	-	-	-	-	-	-	-	-	-	-
0300	-	-	-	-	-	-	-	-	-	-	-	-
0325	-	-	-	-	-	-	-	-	-	-	-	-
0350	-	-	-	-	-	-	-	-	-	-	-	-
0500	•	Std.	Std.	500	•	•	2 (x2)	38	63	4	10	
0550	•	Std.	Std.	550	•	•	2 (x2)	38	63	4	10	
0600	•	Std.	Std.	600	•	•	2 (x2)	38	64	4	10	
0650	•	Std.	Std.	650	•	•	2 (x3)	38	64	4	11	
0700	•	Std.	Std.	650	•	•	2 (x3)	38	64	4	11	
0750	•	Std.	Std.	750	•	•	2 (x3)	38	64	4	11	

NRA L												
0275	•	• (x2)	• (x2)	275	•	•	3	16	62	12	13	
0300	•	• (x2)	• (x2)	300	•	•	3	16	62	12	13	
0325	•	• (x2)	• (x2)	325	•	•	3	16	62	12	13	
0350	•	• (x2)	• (x2)	325	•	•	3	16	82	12	13	
0500	•	• (x2)	di serie	500	•	•	2 (x2)	Std.	63	4	10	
0550	•	• (x2)	Std.	550	•	•	2 (x2)	Std.	63	4	10	
0600	•	• (x2)	Std.	600	•	•	2 (x2)	Std.	64	4	10	
0650	•	• (x2)	Std.	650	•	•	2 (x3)	Std.	64	4	11	
0700	•	• (x2)	Std.	650	•	•	2 (x3)	Std.	64	4	11	
0750	•	• (x2)	Std.	750	•	•	2 (x3)	Std.	64	4	11	

NRA HL												
0275	•	Std.	Std.	275	•	•	4	Std.	62	12	13	
0300	•	Std.	Std.	300	•	•	4	Std.	62	12	13	
0325	•	Std.	Std.	325	•	•	4	Std.	62	12	13	
0350	•	Std.	Std.	325	•	•	4	Std.	82	12	13	
0500	•	Std.	Std.	500	•	•	2 (x2)	Std.	63	4	10	
0550	•	Std.	Std.	550	•	•	2 (x2)	Std.	63	4	10	
0600	•	Std.	Std.	600	•	•	2 (x2)	Std.	64	4	10	
0650	•	Std.	Std.	650	•	•	2 (x3)	Std.	64	4	11	
0700	•	Std.	Std.	650	•	•	2 (x3)	Std.	64	4	11	
0750	•	Std.	Std.	750	•	•	2 (x3)	Std.	64	4	11	

5.4 TECHNICAL DATA, SILENCED VERSIONS (L)

		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
Cooling capacity:	kW	48	57	65	74	88	97	115	134	150	161
Total input power	kW	21	24	27	31	38	41	50	56	66	71.5
Evaporator water flow rate	l/h	8260	9800	11180	12730	15140	16680	19780	23050	2580	27690
Evaporator pressure drop	kPa	33	30	30	41	27	22.5	31.5	31	35.5	36

ENERGY INDICES											
EER	W/W	2,34	2,38	2,41	2,39	2,30	2,35	2,30	2,40	2,27	2,25
ESEER	W/W	2.83	2.87	2.90	2.88	2.67	2.75	3.06	3.20	3.05	

ELECTRICAL DATA											
Fuel feed	A	3N~400 V 50Hz									
Total input power	A	40	46	50	57,5	66,5	71,9	88,4	99,7	112,3	124,2
Maximum current	A	65	68	71	77	98	104	133	145	148	160
Peak current	A	155	161	166	209	215	222	239	250	260	314

COMPRESSORS											
Type		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Number	n°	2	2	2	2	3	3	4	4	4	4
Number per circuit	n°/n°	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2	4/2
COMPRESSOR HEATER											
Compressor carter heater	n° + W	2 x 75	2 x 75	2 x 75	2 x 75	3 x 75	3 x 75	4 x 75	4 x 75	4 x 75	2 x 75
											2 x 130

FANS											
Type		assiale	assiale	assiale	assiale	assiale	assiale	assiale	assiale	assiale	assiale
Number	n°	4	6	6	6	2	2	2	2	3	3
Input current ventilation unit	A	3.2	4.8	4.8	4.8	1.2	1.2	1.8	2.2	2.4	
Input power ventilation unit	kW	2.32	5.22	5.22	5.22	0.8	0.8	1	1.2	1.5	
Air flow rate	m ³ /h	14.000	21.000	21.000	20.300	17.600	19.600	23.000	40.500	46.350	40.000

EVAPORATORS											
Type		piastre	piastre	piastre	piastre	piastre	piastre	piastre	piastre	piastre	piastre
Number	n°	1	1	1	1	1	1	1	1	1	1

HYDRAULIC CIRCUIT											
Water Tank	l	500	500	500	500	500	500	500	500	500	500
Accumulation anti-freeze heater	n° x kW	300	300	300	300	300	300	300	300	300	300

PLUMBING CONNECTIONS STANDARD VERSIONS (hydraulic parallel not supplied)											
Hydraulic connections	V	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½

LOW PRESSURE PUMPING UNIT											
Input power	kW	0.75	0.75	0.75	0.75	1.1	1.1	1.1	1.5	1.85	3
Input current	A	1.85	1.85	1.85	2.14	2.14	2.14	2.14	2.92	3.60	6.4
Useful pressure pumping	kPa	140	135	126	109	134	123	82	93	117	110

HIGH PRESSURE PUMPING UNIT											
Input power	kW	1.1	1.1	1.5	1.5	1.8	1.8	3.7	3.7	3.7	5.5
Input current	A	2.14	2.14	2.92	2.92	3.60	3.60	7.21	7.21	7.21	11.3
Useful pressure pumping	kPa	182	176	171	157	194	192	183	168	154	220

SOUND DATA											
Sounud Power	dB(A)	76.0	76.0	77.0	77.0	74.0	74.5	75.0	76.0	77.0	79.0
Sound pressure (1)	dB(A)	44.0	44.0	45.0	45.0	42.0	42.5	43.0	44.0	45.0	47.0

DIMENSIONS for all versions											
Height	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1875
Width	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Length	mm	2450	2450	2450	2950	2950	2950	2950	2950	3950	4275
EMPTY WEIGHT versions without accumulation and pumps											
	kg	625	655	670	750	990	1040	1140	1305	1355	1560

11 EFFECTIVE PRESSURE FOR THE SYSTEM

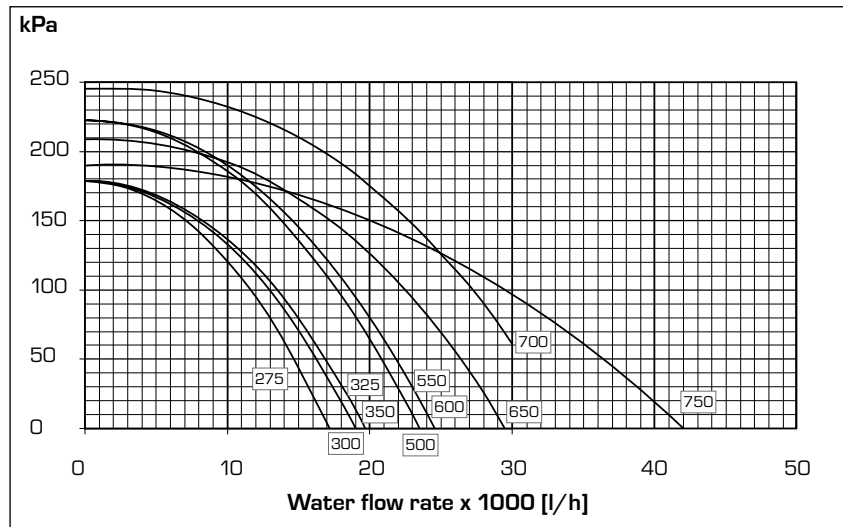
For the versions "01 - 02 - 03 - 04 - P1 - P2 - P3 - P4"

The pressures stated here, are net of the pressure drop of the heat exchangers, filter, accumulation, hydraulic parallel. They are therefore to be considered USEFUL TO THE PLANT.

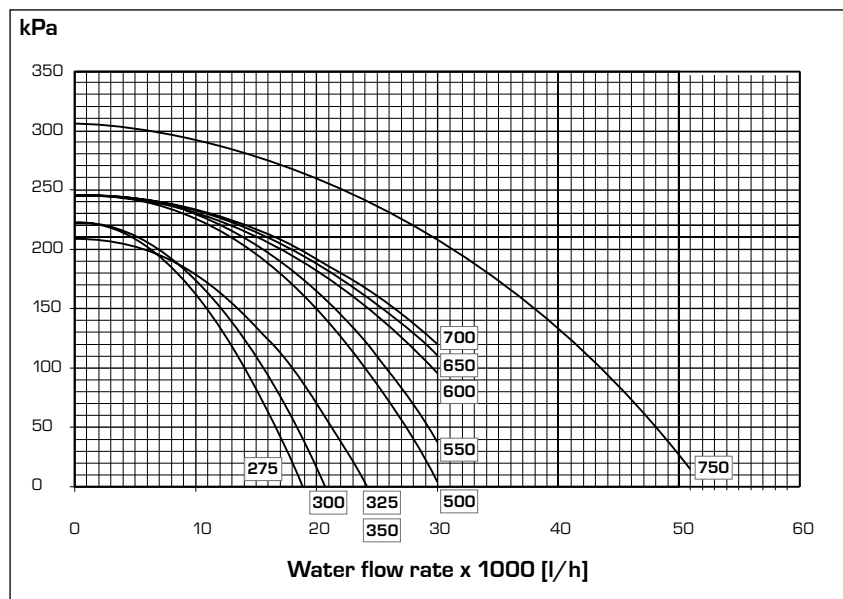
NOTE

- The pressures are calculated in cold mode, WITH ΔT 5 °C FOR LOWER ΔT CONTACT THE ESTABLISHMENT.
- IN THE PRESENCE OF GLYCOLS FOR THE PLANT USEFUL PRESSURE CONTACT THE ESTABLISHMENT
- If there should be two pumps in the configuration selected, remember always 1 functions and the other is reserve and switch-over is electronic, managed by the internal board.

11.1 LOW PRESSURE PUMPS



11.2 HIGH PRESSURE PUMPS



Versiones Standard (°) -		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
Heating capacity available	kW	-	-	-	-	23	25	29	34	38	45
Water flow rate	m ³ /h	-	-	-	-	4	4,3	5	6	6,5	8
Water pressure drops	kPa	-	-	-	-	10	9,5	9	7	8,5	9

Versiones A		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
Heating capacity available	kW	13	16	18	20	23	25	30	34	39	46
Water flow rate	m ³ /h	2,2	2,6	3	3,5	4	4,4	5	6	6,5	8
Water pressure drops	kPa	9,5	7,5	9,5	12	10	9,5	9	7	9	9

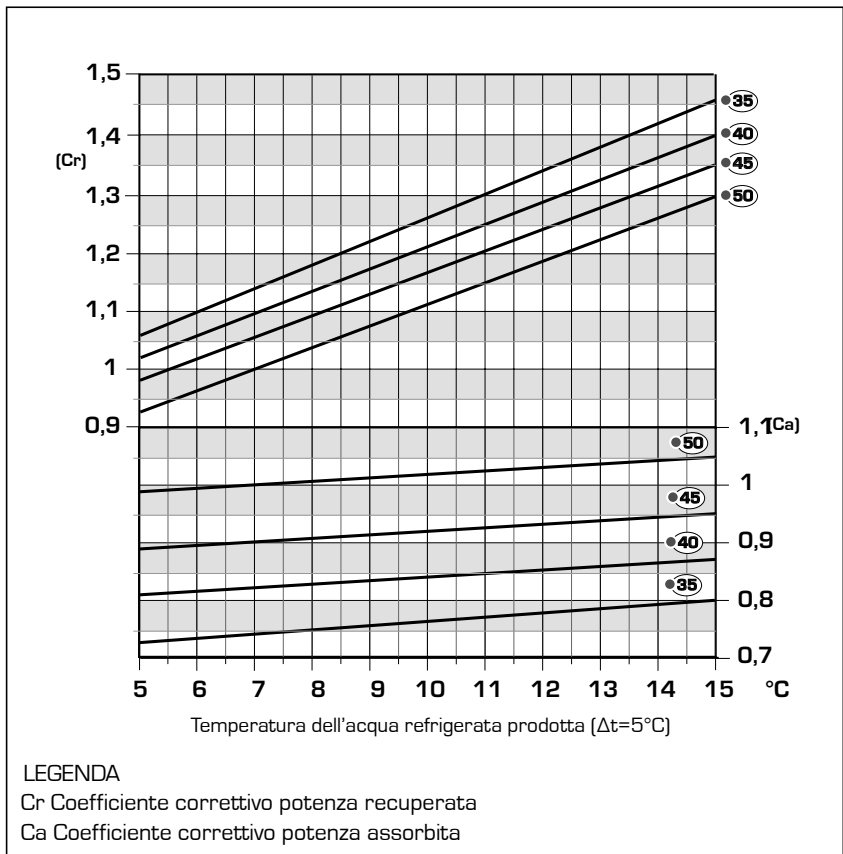
Versiones L		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
Heating capacity available	kW	11,7	14	16	18	22,5	24	29	34	38	40
Water flow rate	m ³ /h	2	2,5	2,7	3	4	4	5	6	6,5	7
Water pressure drops	kPa	7	6	7	10	9,5	9	8,5	7	9	7

13 TOTAL RECOVERY

When operating with the total heat recovery function, machine performance depends on the temperature of the hot water produced, not on that of external air; to calculate the absorbed electrical and heat recovery power values, multiply the values (Pa, Pr) specified at the bottom of the page by the relevant correction factors (Ca, Cr) derived from the diagrams below. The temperature of the relative hot water is given for each curve (a difference of 5°C between total heat recovery unit input and output is presumed). Calculate the cooling power (Pf) by measuring the difference between heat recovery power (Pr) and power absorbed (Pa).

The heating capacity available to the total heat recovery is in rated conditions:

Air temperature 35 °C
 Water produced 50 °C
 Δt 5 °C



Version Standard (°) - A - L		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
Total rec. capacity	kW	66,2	75,8	86,8	99,8	125,5	137,4	164	188,6	214,5	221,2
Total input power	kW	18,2	18,8	21,8	25,8	37,5	40,4	49	54,6	64,5	67,2
Water flow rate	m ³ /h	11,39	13,04	14,93	17,17	21,59	23,63	28,21	32,44	36,89	38,05
Pressure drop	kPa	17	15	19	19	15	19	18	15	20	18

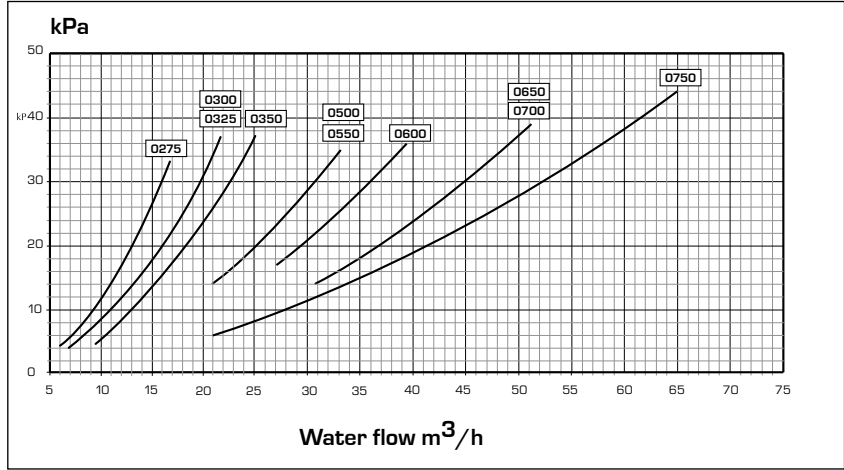
13.1 PRESSURE DROPS

All NRA models with total recovery are equipped with ONE recoveries. Heat recovery unit specifications and load loss curves are given below. The pressure drops you see in the table do not include the filter drop, whose curve is indicated.

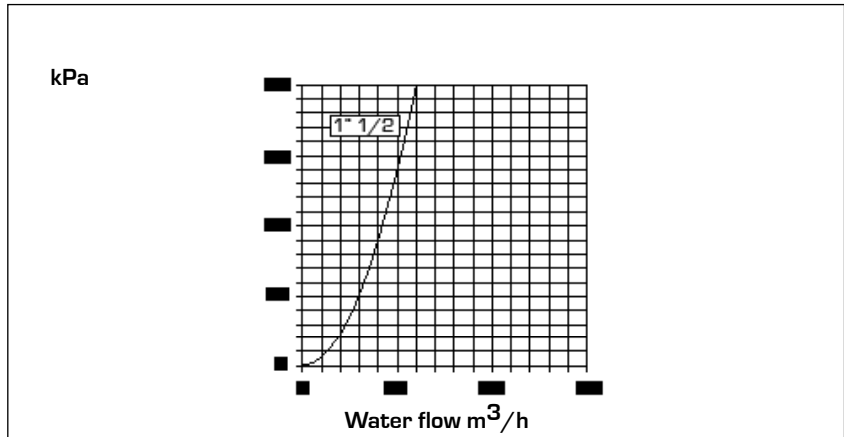
NOTE

The parallel water connections is to be made by the installer

The pressure drops in the charts above refer to an average water temperature of 50 °C. The following table shows the corrections to apply to the pressure drops with a variation in average water temperature.



13.2 Pressure drop water filter total recovery



15 SOUND DATA

Sound power

Aermec determines the sound power value on the basis of measurements carried out in agreement with 9614 regulations, in compliance with that requested by the Eurovent certification.

(1) Sound pressure

Sound pressure in a free field on a reflecting surface (directionality factor Q=2), at 10 mt from the external surface of the unit, using the parallel expanded method (box-method, ISO 3744)

KEY

Functioning conditions:

Water evaporator (in/out) 12/7 °C

Air condenser 35 °C

NOTE

The data of the H/HL versions are calculated in cold mode and refer to the H version

(*)	Total sound levels			Octave band[Hz]						
	Pow. dB(A)	Press.		125	250	500	1000	2000	4000	8000
		dB(A) 10 m	dB 1 m							
				Acoustic power by central band frequency [dB]						
0275	-	-	-	-	-	-	-	-	-	-
0300	-	-	-	-	-	-	-	-	-	-
0325	-	-	-	-	-	-	-	-	-	-
0350	-	-	-	-	-	-	-	-	-	-
0500	82.5	50.5	70.0	84.3	78.6	77.5	77.2	76.3	73.2	64.8
0550	82.5	50.5	70.0	82.8	79.0	79.0	78.4	76.4	71.8	62.9
0600	83.0	51.0	71.0	86.0	79.8	78.5	78.2	77.4	73.4	64.9
0650	84.0	52.0	71.0	85.2	80.4	79.1	78.2	78.3	74.6	65.3
0700	86.0	54.0	73.0	92.7	81.9	80.7	81.0	79.3	74.4	65.4
0750	86.0	54.0	72.0	92.7	81.9	81.6	81.3	79.2	75.5	66.5

(A)	Total sound levels			Octave band[Hz]						
	Pow. dB(A)	Press.		125	250	500	1000	2000	4000	8000
		dB(A) 10 m	dB 1 m							
				Acoustic power by central band frequency [dB]						
0275	76.0	44.0	64.0	76.6	76.5	73.5	71.5	66.3	61.5	51
0300	76.0	44.0	65.0	77.6	74.9	74.5	71.5	66	59.7	49.7
0325	77.0	45.0	66.0	77.5	77.8	76.1	71.4	66.8	59.7	50.3
0350	77.0	45.0	65.0	79.1	77.5	75.5	72	66.9	59.5	49.3
0500	82.5	50.5	70.0	84.2	78.6	77.5	77.2	76.3	73.2	64.3
0550	82.5	50.5	70.0	84.1	78.4	77.9	77.6	76.5	71.2	62.3
0600	83.0	51.0	70.0	85.6	78.8	78.4	78	77	72.1	63
0650	84.0	52.0	71.0	86.7	80.7	79.5	78.5	77.8	73.9	63.5
0700	84.0	52.0	70.0	83.8	79.9	79.7	79.5	77.4	72.9	64.7
0750	84.5	52.0	71.0	83.8	79.9	80.7	80	77.2	74.3	66

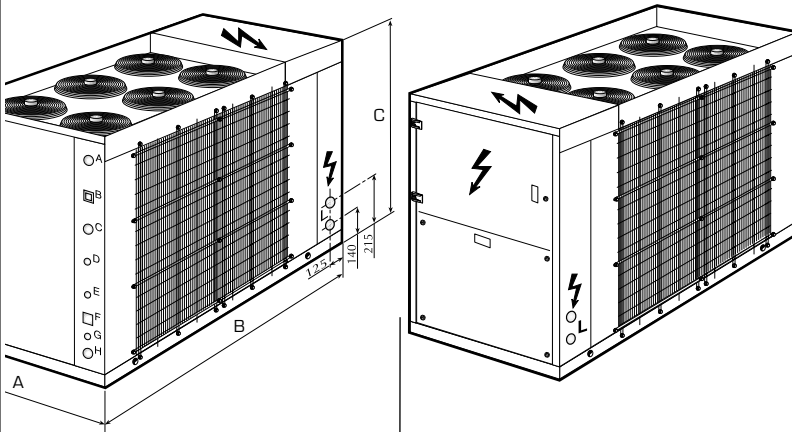
(L)	Total sound levels			Octave band[Hz]						
	Pow. dB(A)	Press.		125	250	500	1000	2000	4000	8000
		dB(A) 10 m	dB 1 m							
				Acoustic power by central band frequency [dB]						
0275	76.0	44.0	65.0	77.2	77.0	74.1	71.2	66.1	59.2	49.5
0300	76.0	44.0	65.0	77.7	74.9	74.1	71.7	66.6	59.7	50.0
0325	77.0	45.0	66.0	79.8	78.0	75.8	71.4	66.6	60.0	50.8
0350	77.0	45.0	66.0	79.3	77.3	75.5	72.0	67.0	59.8	49.6
0500	74.0	42.0	61.0	77.2	72.3	70.1	69.0	66.8	62.3	53.8
0550	74.5	42.5	62.0	78.9	73.1	70.7	69.4	67.1	62.6	54.0
0600	75.0	43.0	62.0	80.7	73.6	71.3	69.7	67.4	62.6	54.0
0650	76.0	44.0	62.0	81.1	73.7	72.9	71.3	68.2	62.0	54.3
0700	77.0	45.0	63.0	82.0	76.5	74.6	72.3	68.3	62.1	53.8
0750	79	47.0	65.0	82	76.5	77.3	74.3	66.6	69.7	61

(C)	Total sound levels			Octave band[Hz]						
	Pow. dB(A)	Press.		125	250	500	1000	2000	4000	8000
		dB(A) 10 m	dB 1 m							
				Acoustic power by central band frequency [dB]						
0275	-	-	-	-	-	-	-	-	-	-
0300	-	-	-	-	-	-	-	-	-	-
0325	-	-	-	-	-	-	-	-	-	-
0350	-	-	-	-	-	-	-	-	-	-
0500	82.5	50.5	70.0	84.2	78.6	77.5	77.2	76.3	73.2	64.3
0550	82.5	50.5	70.0	84.1	78.4	77.9	77.6	76.5	71.2	62.3
0600	83.0	51.0	70.0	85.6	78.8	78.4	78.0	77.0	72.1	63.0
0650	84.0	52.0	71.0	86.7	80.7	79.5	78.5	77.8	73.9	63.5
0700	84.0	52.0	70.0	83.8	79.9	79.7	79.5	77.4	72.9	64.7
0750	84.0	52.0	71.0	83.8	79.9	80.7	80	77.2	74.3	66

(CL)	Total sound levels			Octave band[Hz]						
	Pow. dB(A)	Press.		125	250	500	1000	2000	4000	8000
		dB(A) 10 m	dB 1 m							
				Acoustic power by central band frequency [dB]						
0275	76.0	44.0	65.0	77.2	77.0	74.1	71.2	66.1	59.2	49.5
0300	76.0	44.0	65.0	77.6	74.9	74.5	71.5	66	59.7	49.7
0325	77.0	45.0	66.0	79.8	78.0	75.8	71.4	66.6	60.0	50.8
0350	77.0	45.0	66.0	79.1	77.3	75.5	72	67.0	59.8	49.6
0500	74.0	42.0	61.0	77.2	72.3	70.1	69.0	66.8	62.3	53.8
0550	74.5	42.5	62.0	78.9	73.1	70.7	69.4	67.1	62.6	54.0
0600	75.5	43.5	63.0	80.9	74.1	71.8	70.2	67.5	62.1	54.5
0650	76.0	44.0	62.0	81.1	73.7	72.9	71.3	68.2	62.0	54.3
0700	77.0	45.0	63.0	82.0	76.5	74.6	72.3	68.3	62.1	53.8
0750	79.0	47.0	65.0	82	76.5	77.3	74.3	66.6	69.7	61

18 DIMENSIONS

NRA 275 - 300 - 325 - 350 version A - L - C - HL

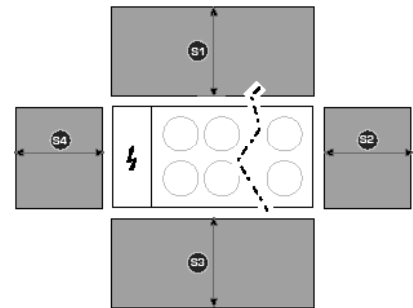


electric power inlet
(available on right and left
sides)

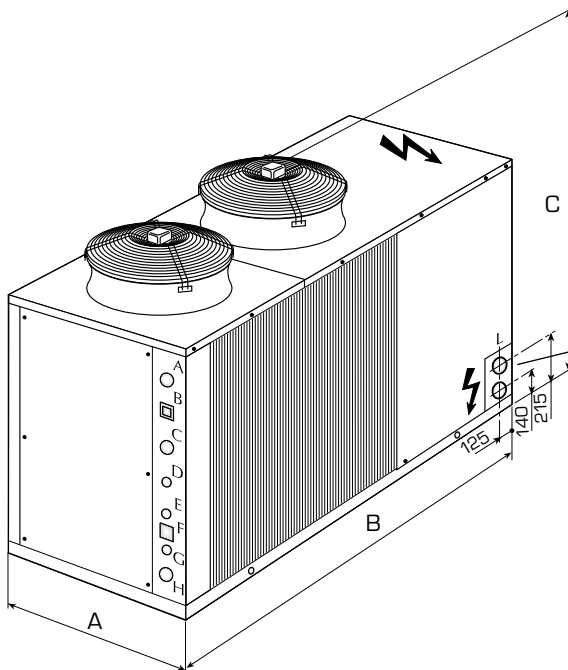
Mod.	versioni	A (mm)	B (mm)	C (mm)
275	L - A - C	1100	2450	1606
300	L - A - C	1100	2450	1606
325	L - A - C	1100	2450	1606
350	L - C	1100	2450	1606

275	HL	1100	2950	1606
300	HL	1100	2950	1606
325	HL	1100	2950	1606
350	A-HL	1100	2950	1606

Mod.	Minimum technical space				
mm	S1	S2	S3	S4	clearance altura
	800	800	800	1100	3000



NRA 0500 - 0550 - 600 - 650 - 700



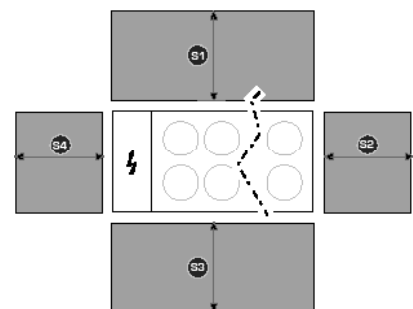
Mod.	version	A (mm)	B (mm)	C (mm)
500	° - A - L - C - LC - H - HL	1100	2950	1875
550	° - A - L - C - LC - H - HL	1100	2950	1875
600	° - A - L - C - LC - H - HL	1100	2950	1875

650	° - A - C	1100	2950	1875
-----	-----------	------	------	------

700	°	1100	2950	1875
-----	---	------	------	------

electric power inlet
(available on right and left
sides)

Mod.	Minimum technical space				
mm	S1	S2	S3	S4	clearance altura
	800	800	800	1100	3000



20 PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT

Mod. (1)	version	A (mm)	B (mm)
275	L - A - C	2450	2050
300	L - A - C	2450	2050
325	L - A - C	2450	2050
350	L - LC	2450	2050

275	HL	2950	2550
300	HL	2950	2550
325	HL	2950	2550
350	A-HL	2950	2550

Mod. (2)	version	A (mm)	B (mm)
500	° - L - A - C - LC - H - HL	2950	2550
550	° - L - A - C - LC - H - HL	2950	2550
600	° - L - A - C - LC - H - HL	2950	2550
650	° - A - C - CL	2950	2550
700	°	2950	2550

Mod.	version	A (mm)	B (mm)	C (mm)	D (mm)
650	L - H - HL	3936	200	1440	2096
700	L - A - C - LC - H - HL	3936	200	1440	2096
750	° - L - A - C - LC - H - HL	4268	532	1440	2096

Version without hydronic kit with water (00)

NRA (°) CENTER OF GRAVITY G _x e G _y / PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT											
		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
°	[Kg]	-	-	-	-	910	935	1010	1105	1205	1530
°D	[Kg]	-	-	-	-	920	947	1024	1123	1223	1548
°T	[Kg]	-	-	-	-	1005	1030	1115	1230	1330	1655
G _x	[mm]	-	-	-	-	1150	1140	1120	1140	1060	1440
G _y	[mm]	-	-	-	-	570	570	550	550	550	550
A	%	-	-	-	-	33	33	32	32	33	26
B	%	-	-	-	-	30	30	32	32	33	26
C	%	-	-	-	-	19	19	18	18	17	24
D	%	-	-	-	-	18	19	18	18	17	24
VT		-	-	-	-	4	4	4	4	4	4

NRA A CENTER OF GRAVITY G _x e G _y / PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT											
		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
A	[Kg]	660	690	705	790	980	1005	1080	1165	1345	1530
AD	[Kg]	667	698	714	800	990	1117	1094	1183	1363	1548
AT	[Kg]	705	820	835	920	1115	1140	1215	1305	1485	1655
G _x	[mm]	945	940	925	1050	1190	1180	1150	1160	1480	1440
G _y	[mm]	550	550	550	550	560	560	550	550	550	550
A	%	32	32	32	33	31	31	31	31	25	26
B	%	32	32	32	33	30	30	31	31	25	26
C	%	18	18	18	17	20	20	19	19	25	24
D	%	18	18	18	17	19	19	19	19	25	24
E		-	-	-	-	-	-	-	-	-	-
F		-	-	-	-	-	-	-	-	-	-
VT		12	12	12	12	4	4	4	4	4	4

NRA L CENTER OF GRAVITY G _x e G _y / PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT											
		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
A	[Kg]	625	655	670	750	990	1040	1140	1305	1355	1560
AD	[Kg]	632	663	679	759	1000	1052	1154	1323	1373	1578
AT	[Kg]	670	709	733	813	1085	1135	1245	1430	1480	1685
G _x	[mm]	925	920	905	900	1180	1190	1180	1500	1470	1440
G _y	[mm]	550	550	550	550	560	570	550	550	550	550
A	%	32	32	33	33	31	31	31	25	25	26
B	%	32	32	33	33	30	30	31	25	25	26
C	%	18	18	17	17	20	20	19	25	25	24
D	%	18	18	17	17	19	19	19	25	25	24
E		-	-	-	-	-	-	-	-	-	-
F		-	-	-	-	-	-	-	-	-	-
VT		12	12	12	12	4	4	4	4	4	4

NRA H CENTER OF GRAVITY G _x e G _y / PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT											
		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
H	[Kg]	-	-	-	-	1030	1090	1200	1370	1425	1638
HD	[Kg]	-	-	-	-	1040	1102	1214	1388	1443	1656
G _x	[mm]	-	-	-	-	1150	1160	1160	1470	1440	1440
G _y	[mm]	-	-	-	-	540	520	550	550	550	550
A	%	-	-	-	-	31	29	31	25	26	26
B	%	-	-	-	-	32	33	31	25	26	26
C	%	-	-	-	-	18	18	19	25	24	24
D	%	-	-	-	-	19	20	19	25	24	24
E		-	-	-	-	-	-	-	-	-	-
F		-	-	-	-	-	-	-	-	-	-
VT		-	-	-	-	4	4	4	4	4	4

NRA HL CENTER OF GRAVITY G _x e G _y / PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT											
		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
H L	[Kg]	725	750	770	860	1040	1100	1210	1380	1435	1638
HLD	[Kg]	732	758	779	869	1049	1110	1222	1394	1453	1656
G _x	[mm]	1080	1075	1060	1055	1150	1160	1160	1470	1440	1440
G _y	[mm]	550	550	550	550	540	520	550	550	550	550
A	%	33	33	33	33	31	29	31	25	26	26
B	%	33	33	33	33	32	33	31	25	26	26
C	%	17	17	17	17	18	18	19	25	24	24
D	%	17	17	17	17	19	20	19	25	24	24
E	%	-	-	-	-	-	-	-	-	-	-
F	%	-	-	-	-	-	-	-	-	-	-
VT		12	12	12	12	4	4	4	4	4	4

Version with hydronic kit and with water (04)

NRA (°) CENTER OF GRAVITY G _x e G _y / PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT											
		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
°	[Kg]	-	-	-	-	910	935	1010	1105	1205	1530
°D	[Kg]	-	-	-	-	920	947	1024	1123	1223	1548
°T	[Kg]	-	-	-	-	1005	1030	1115	1230	1330	1655
G _x	[mm]	-	-	-	-	1150	1140	1120	1140	1060	1440
G _y	[mm]	-	-	-	-	570	570	550	550	550	550
A	%	-	-	-	-	33	33	32	32	33	11
B	%	-	-	-	-	30	30	32	32	33	11
C	%	-	-	-	-	19	19	18	18	17	8
D	%	-	-	-	-	18	19	18	18	17	8
E	%	-	-	-	-	-	-	-	-	-	31
F	%	-	-	-	-	-	-	-	-	-	31
VT		-	-	-	-	10	10	10	10	10	11

NRA A CENTER OF GRAVITY G _x e G _y / PERCENTAGE DISTRIBUTION OF WEIGHT ON SUPPORT											
		0275	0300	0325	0350	0500	0550	0600	0650	0700	0750
A	[Kg]	1310	1340	1355	1440	1640	1665	1760	1845	2025	2210
AD	[Kg]	1317	1348	1364	1450	1650	1777	1774	1863	2043	2228
AT	[Kg]	1355	1475	1485	2210	1775	1800	1895	1985	2165	2345
G _x	[mm]	1225	1215	1205	1300	1540	1540	1500	1490	1670	1440
G _y	[mm]	550	550	550	550	550	560	550	550	550	550
A	%	25	25	25	28	24	24	25	25	11	11
B	%	25	25	25	28	23	23	25	25	11	11
C	%	25	25	25	22	27	27	25	25	9	8
D	%	25	25	25	22	26	26	25	25	9	8
E	%	-	-	-	-	-	-	-	-	30	31
F	%	-	-	-	-	-	-	-	-	30	31
VT		13	13	13	13	10	10	10	10	11	11