

NRB 0282H-0754H

Reversible air/water heat pump

Cooling capacity 52 ÷ 261 kW
Heating capacity 57 ÷ 193 kW

- High efficiency also at partial loads
- Components redundancy for greater safety
- Reduced amount of refrigerant
- Compact dimensions



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

FEATURES

Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 55°C (for more information see the technical documentation).

Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

- **VARIABLE FLOW RATE:** *Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.*

CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating

parameters and graphically view the progress of some variables in real time.

AERCALM: The aim of the accessory installed in the electric box of the unit is to provide a clean contact for commanding - on the basis of the outside air temperature - a boiler to supplement or replace the heat pump. Aercalm must be requested at the time of ordering, as it is installed in the factory.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
AER485P1	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERBACP	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Fans: °															
°	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
A	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
E,L	DCPX140	DCPX140	DCPX140	DCPX140	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
Fans: M															
E,L	DCPX141	DCPX141	DCPX141	DCPX141	-	-	-	-	-	-	-	-	-	-	-

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0602	0604
°A	-	-	-	-	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)
E,L	DRENRB282 (1)	DRENRB302 (1)	DRENRB332 (1)	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754
°A,E,L	DRENRB652 (1)	DRENRB654 (1)	DRENRB682 (1)	DRENRB702 (1)	DRENRB704 (1)	DRENRB752 (1)	DRENRB754 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°A	-	-	-	-	RIF0502	RIF0552	RIF0602	RIF0604	RIF0652	RIF0654	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754
E,L	RIF0282	RIF0302	RIF0332	RIF0352	RIF0502	RIF0552	RIF0602	RIF0604	RIF0652	RIF0654	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Touch screen keyboard

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°A,E,L	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH

A grey background indicates the accessory must be assembled in the factory

Clean contact for controlling a boiler.

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
AERCALM	°A,E,L									*	*			*		*

CONFIGURATOR

Field	Description
1,2,3	NRB
4,5,6,7	Size 0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754
8	Operating field
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (1)
Y	Double mechanical thermostat for low temperature (2)
Z	Low temperature electronic thermostatic valve (3)
9	Model
H	Heat pump
10	Heat recovery
°	Without heat recovery
D	With desuperheater (4)
11	Version
°	Standard
A	High efficiency
E	Silenced high efficiency (5)
L	Standard silenced (5)
12	Coils
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pipes-Coated aluminium fins
13	Fans
°	Standard
J	Inverter
M	Oversized (6)
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
1	220V~ 3 50Hz with magnet circuit breakers (7)
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump

Field	Description
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s and storage tank with holes for heaters
05	Storage tank with holes for heaters and single low head pump (8)
06	Storage tank with holes for heaters and pump low head + stand-by pump (8)
07	Storage tank with holes for heaters and single high head pump (8)
08	Storage tank with holes for heaters and pump high head + stand-by pump (8)
	Double loop
09	Double loop
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to fixed speed
I1	Single low head pump + fixed speed inverter
I2	Single low head pump with fixed speed inverter + stand-by pump
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to fixed speed
K1	Single low head pump + storage tank + fixed speed inverter
K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and variable speed inverter pump/s
W1	Single low head pump + Storage tank + variable speed inverter
W2	Double low head pump + Storage tank + variable speed inverter
W3	Single high head pump + Storage tank + variable speed inverter
W4	Double high head pump + Storage tank + variable speed inverter

- (1) Water produced from 4 °C ÷ 18 °C
- (2) Water produced from -10 °C ÷ 18 °C
- (3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions
- (4) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
- (5) The size 0282-0302-0332-0352 are only available in the silenced versions "HL/HE"
- (6) Only for 0282 ÷ 0352 sizes
- (7) Only for sizes up 0282 from 0352 and from 0604 to 0704
- (8) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

NRB H°

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C/ 7 °C (1)																
Cooling capacity	kW	-	-	-	-	91,2	99,7	116,0	115,4	124,7	133,4	151,0	169,9	159,9	187,2	180,8
Input power	kW	-	-	-	-	33,5	37,5	42,6	46,2	47,8	51,2	51,7	60,0	58,0	69,8	65,7
Cooling total input current	A	-	-	-	-	61,0	67,0	74,0	83,0	83,0	92,0	90,0	102,0	105,0	116,0	116,0
EER	W/W	-	-	-	-	2,72	2,66	2,72	2,50	2,61	2,60	2,92	2,83	2,76	2,68	2,75
Water flow rate system side	l/h	-	-	-	-	15705	17177	19972	19876	21484	22988	25997	29247	27534	32236	31116
Pressure drop system side	kPa	-	-	-	-	35	42	37	44	43	44	50	61	65	74	59
Heating performance 40 °C/ 45 °C (2)																
Heating capacity	kW	-	-	-	-	96,8	105,8	123,7	129,0	136,1	143,4	158,7	178,4	171,8	198,7	188,6
Input power	kW	-	-	-	-	31,0	33,8	38,7	42,7	43,3	47,7	51,2	58,2	57,3	66,0	61,8
Heating total input current	A	-	-	-	-	56,0	60,0	68,0	77,0	76,0	87,0	89,0	99,0	104,0	110,0	111,0
COP	W/W	-	-	-	-	3,12	3,13	3,20	3,03	3,15	3,01	3,10	3,07	3,00	3,01	3,05
Water flow rate system side	l/h	-	-	-	-	16773	18334	21443	22371	23594	24863	27527	30948	29797	34460	32710
Pressure drop system side	kPa	-	-	-	-	40	48	43	56	52	52	56	69	76	84	65

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C/ 7 °C (1)																
Cooling capacity	kW	52,1	59,2	67,3	78,1	88,5	96,5	111,5	110,4	119,3	126,4	147,0	164,5	154,9	180,5	174,0
Input power	kW	19,5	22,0	24,8	29,5	34,1	38,3	44,1	48,4	49,9	54,2	52,3	61,5	59,2	72,5	67,8
Cooling total input current	A	35,0	41,0	47,0	55,0	59,0	66,0	74,0	84,0	84,0	94,0	87,0	100,0	103,0	116,0	116,0
EER	W/W	2,67	2,69	2,71	2,65	2,60	2,52	2,53	2,28	2,39	2,33	2,81	2,68	2,62	2,49	2,57
Water flow rate system side	l/h	8974	10197	11584	13455	15234	16630	19200	19020	20540	21776	25312	28324	26677	31068	29958
Pressure drop system side	kPa	33	42	33	45	33	39	34	40	39	40	48	58	60	69	55
Heating performance 40 °C/ 45 °C (2)																
Heating capacity	kW	57,5	65,7	75,3	84,9	96,8	105,8	123,7	129,0	136,1	143,4	158,7	178,4	171,8	198,7	188,6
Input power	kW	17,6	20,7	23,1	26,9	31,0	33,8	38,7	42,6	43,3	47,7	51,2	58,2	57,3	66,0	61,8
Heating total input current	A	32,0	38,0	43,0	51,0	56,0	60,0	68,0	77,0	76,0	87,0	89,0	99,0	104,0	110,0	111,0
COP	W/W	3,27	3,17	3,26	3,16	3,12	3,13	3,20	3,03	3,15	3,01	3,10	3,07	3,00	3,01	3,05
Water flow rate system side	l/h	9973	11376	13056	14711	16773	18334	21443	22371	23594	24863	27527	30948	29797	34460	32710
Pressure drop system side	kPa	41	53	42	54	40	47	43	55	52	52	56	69	75	84	65

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C/ 7 °C (1)																
Cooling capacity	kW	-	-	-	-	96,9	106,5	123,6	123,1	133,6	142,1	163,9	178,5	168,0	199,9	190,0
Input power	kW	-	-	-	-	32,3	36,1	39,5	43,3	45,0	47,2	50,7	57,0	55,4	66,5	62,8
Cooling total input current	A	-	-	-	-	57,0	61,0	68,0	73,0	74,0	79,0	85,0	94,0	99,0	102,0	106,0
EER	W/W	-	-	-	-	3,00	2,95	3,13	2,84	2,97	3,01	3,23	3,13	3,03	3,01	3,03
Water flow rate system side	l/h	-	-	-	-	16684	18331	21277	21205	23007	24462	28216	30726	28924	34406	32698
Pressure drop system side	kPa	-	-	-	-	26	31	32	38	38	50	44	52	50	56	54
Heating performance 40 °C/ 45 °C (2)																
Heating capacity	kW	-	-	-	-	100,3	110,9	124,3	129,7	138,2	149,4	164,1	179,7	172,3	200,6	190,0
Input power	kW	-	-	-	-	30,7	33,5	37,6	40,5	42,0	46,7	50,2	56,3	54,3	62,9	59,5
Heating total input current	A	-	-	-	-	56,0	60,0	67,0	73,0	74,0	86,0	87,0	96,0	99,0	106,0	107,0
COP	W/W	-	-	-	-	3,27	3,31	3,31	3,20	3,29	3,20	3,27	3,19	3,17	3,19	3,19
Water flow rate system side	l/h	-	-	-	-	17406	19230	21553	22489	23953	25914	28469	31171	29889	34800	32956
Pressure drop system side	kPa	-	-	-	-	28	34	33	42	41	56	45	54	54	57	55

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	55,4	62,1	70,0	81,2	94,0	103,0	119,1	117,6	128,0	138,3	159,4	172,5	162,3	191,7	182,6
Input power	kW	18,5	21,0	23,7	28,3	32,8	36,9	40,7	44,7	46,9	47,7	51,4	58,5	56,7	69,3	64,9
Cooling total input current	A	32,0	37,0	42,0	47,0	56,0	61,0	68,0	74,0	75,0	76,0	83,0	93,0	98,0	102,0	106,0
EER	W/W	3,00	2,96	2,95	2,86	2,86	2,79	2,92	2,63	2,73	2,90	3,10	2,95	2,87	2,77	2,81
Water flow rate system side	l/h	9530	10696	12052	13983	16181	17722	20498	20255	22037	23819	27431	29692	27947	33000	31425
Pressure drop system side	kPa	23	29	26	35	24	29	30	34	34	48	41	49	47	51	50
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	59,0	68,2	76,6	87,1	100,3	110,9	124,3	129,7	138,2	149,4	164,1	179,7	172,3	200,6	190,0
Input power	kW	17,5	20,3	22,9	26,4	30,7	33,5	37,6	40,5	42,0	46,7	50,2	56,3	54,3	62,9	59,5
Heating total input current	A	33,0	38,0	44,0	50,0	56,0	60,0	67,0	73,0	74,0	86,0	87,0	96,0	99,0	106,0	107,0
COP	W/W	3,37	3,36	3,35	3,30	3,27	3,31	3,31	3,20	3,29	3,20	3,27	3,19	3,17	3,19	3,19
Water flow rate system side	l/h	10227	11816	13289	15100	17406	19230	21553	22489	23953	25914	28469	31171	29889	34800	32956
Pressure drop system side	kPa	26	35	31	41	28	34	33	42	41	56	45	54	54	57	55

(1) Data EN 14511:2018; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2018; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C**NRB H°**

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	-	-	-	-	122,6	133,3	155,1	154,9	165,6	183,4	203,5	227,9	218,9	248,3	247,3
Input power	kW	-	-	-	-	36,3	41,0	46,5	50,2	52,2	55,9	55,8	65,6	62,6	77,0	72,2
Cooling total input current	A	-	-	-	-	65,0	72,0	80,0	89,0	90,0	99,0	96,0	110,0	112,0	126,0	126,0
EER	W/W	-	-	-	-	3,38	3,25	3,33	3,08	3,17	3,28	3,65	3,48	3,50	3,23	3,42
Water flow rate system side	l/h	-	-	-	-	21190	23054	26805	26775	28622	31700	35175	39395	37837	42931	42743
Pressure drop system side	kPa	-	-	-	-	63	75	67	81	76	84	92	111	123	131	112
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	-	-	-	-	98,8	107,2	127,4	132,8	139,6	146,7	163,5	182,9	176,8	201,7	192,4
Input power	kW	-	-	-	-	25,4	27,7	31,8	34,3	35,5	38,4	42,0	47,3	46,5	53,2	50,4
Heating total input current	A	-	-	-	-	46,0	49,0	56,0	61,0	62,0	70,0	72,0	80,0	84,0	88,0	90,0
COP	W/W	-	-	-	-	3,89	3,87	4,01	3,87	3,93	3,82	3,90	3,87	3,80	3,79	3,82
Water flow rate system side	l/h	-	-	-	-	17058	18508	21998	22936	24118	25357	28248	31616	30551	34851	33261
Pressure drop system side	kPa	-	-	-	-	41	49	45	59	54	54	59	72	80	86	68

(1) Data EN 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	69,6	79,3	92,2	105,6	118,1	128,2	147,6	146,8	156,6	170,9	196,8	218,8	210,1	237,3	235,3
Input power	kW	21,9	24,2	27,3	32,5	37,3	42,4	48,9	53,8	55,5	60,7	57,2	68,1	64,8	81,0	75,7
Cooling total input current	A	39,0	44,0	51,0	60,0	64,0	72,0	81,0	92,0	93,0	104,0	94,0	110,0	111,0	128,0	128,0
EER	W/W	3,18	3,27	3,37	3,25	3,17	3,02	3,02	2,73	2,82	2,82	3,44	3,22	3,24	2,93	3,11
Water flow rate system side	l/h	12041	13740	15960	18270	20427	22163	25508	25376	27064	29542	34006	37824	36327	41017	40668
Pressure drop system side	kPa	59	77	63	83	59	69	61	70	68	73	86	103	112	120	101
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	58,9	66,7	77,1	86,8	98,8	107,2	127,4	132,8	139,6	146,7	163,5	182,9	176,8	201,7	192,4
Input power	kW	13,9	16,5	18,4	21,5	25,4	27,7	31,8	34,3	35,5	38,4	42,0	47,3	46,5	53,2	50,4
Heating total input current	A	25,0	30,0	34,0	40,0	46,0	49,0	56,0	61,0	62,0	70,0	72,0	80,0	84,0	88,0	90,0
COP	W/W	4,25	4,06	4,19	4,03	3,89	3,87	4,01	3,87	3,93	3,82	3,90	3,87	3,80	3,79	3,82
Water flow rate system side	l/h	10168	11516	13317	14972	17058	18508	21998	22936	24118	25357	28248	31616	30551	34851	33261
Pressure drop system side	kPa	42	54	44	56	41	48	45	57	54	54	59	72	79	86	68

(1) Data EN 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	-	-	-	-	131,3	143,6	166,5	170,4	178,7	198,2	222,3	241,2	231,6	268,1	261,3
Input power	kW	-	-	-	-	34,9	39,4	42,9	47,2	49,0	50,3	54,8	62,4	59,6	73,6	68,8
Cooling total input current	A	-	-	-	-	61,0	66,0	74,0	79,0	80,0	82,0	91,0	101,0	105,0	112,0	115,0
EER	W/W	-	-	-	-	3,77	3,65	3,88	3,61	3,65	3,94	4,06	3,86	3,88	3,65	3,80
Water flow rate system side	l/h	-	-	-	-	22699	24821	28771	29452	30874	34255	38412	41683	40019	46336	45163
Pressure drop system side	kPa	-	-	-	-	48	57	59	73	68	98	81	97	96	102	103
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	-	-	-	-	104,2	114,6	128,1	133,6	141,8	154,4	169,0	184,0	177,3	203,5	193,6
Input power	kW	-	-	-	-	25,2	27,6	30,9	32,6	34,4	38,0	41,2	45,8	44,1	50,7	48,5
Heating total input current	A	-	-	-	-	46,0	49,0	54,0	59,0	60,0	69,0	71,0	78,0	80,0	85,0	87,0
COP	W/W	-	-	-	-	4,14	4,16	4,15	4,10	4,12	4,07	4,10	4,02	4,02	4,01	3,99
Water flow rate system side	l/h	-	-	-	-	18004	19795	22128	23077	24492	26674	29206	31801	30649	35173	33469
Pressure drop system side	kPa	-	-	-	-	30	36	35	45	43	60	47	56	56	58	57

(1) Data EN 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	76,4	85,7	96,8	111,4	126,2	137,5	158,5	160,4	168,9	191,5	214,3	230,5	221,2	253,2	247,4
Input power	kW	20,4	23,1	25,7	31,2	35,9	41,0	45,2	49,8	52,2	51,4	56,4	65,1	62,1	78,2	72,6
Cooling total input current	A	35,0	40,0	45,0	51,0	61,0	67,0	75,0	81,0	82,0	81,0	90,0	102,0	106,0	114,0	117,0
EER	W/W	3,74	3,72	3,77	3,57	3,51	3,36	3,51	3,22	3,24	3,72	3,80	3,54	3,56	3,24	3,41
Water flow rate system side	l/h	13219	14836	16740	19268	21829	23767	27392	27721	29185	33098	37025	39827	38232	43759	42750
Pressure drop system side	kPa	43	55	50	66	44	52	53	64	60	92	75	88	88	91	92
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	60,5	70,2	78,9	90,4	104,2	114,6	128,1	133,6	141,8	154,4	169,0	184,0	177,3	203,5	193,6
Input power	kW	13,8	16,1	18,2	21,1	25,2	27,6	30,9	32,6	34,4	38,0	41,2	45,8	44,1	50,7	48,5
Heating total input current	A	26,0	30,0	35,0	40,0	46,0	49,0	54,0	59,0	60,0	69,0	71,0	78,0	80,0	85,0	87,0
COP	W/W	4,38	4,36	4,34	4,28	4,14	4,16	4,15	4,10	4,12	4,07	4,10	4,02	4,02	4,01	3,99
Water flow rate system side	l/h	10456	12125	13636	15617	18004	19795	22128	23077	24492	26674	29206	31801	30649	35173	33469
Pressure drop system side	kPa	27	37	33	43	30	36	35	45	43	60	47	56	56	58	57

(1) Data EN 14511:2018; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling capacity with low leaving water temp (UE n° 2016/2281)																
SEER	°	W/W	-	-	-	3,92	3,83	3,99	3,70	3,91	3,67	4,14	3,97	3,73	3,88	3,76
	A	W/W	-	-	-	4,21	4,14	4,39	3,93	4,20	3,92	4,38	4,27	3,99	4,24	4,06
	E	W/W	4,28	4,32	4,22	4,24	4,17	4,10	4,33	3,86	4,12	3,93	4,35	4,21	3,98	4,16
	L	W/W	4,10	4,11	4,11	4,00	3,88	3,83	3,93	3,68	3,89	3,64	4,08	3,89	3,70	3,81
ηsc	°	%	-	-	-	154,00	150,00	157,00	145,00	153,00	144,00	163,00	156,00	146,00	152,00	147,00
	A	%	-	-	-	165,00	163,00	173,00	154,00	165,00	154,00	172,00	168,00	157,00	167,00	160,00
	E	%	168,00	170,00	166,00	167,00	164,00	161,00	170,00	151,00	162,00	154,00	171,00	165,00	156,00	163,00
	L	%	161,00	161,00	161,00	157,00	152,00	150,00	154,00	144,00	153,00	143,00	160,00	153,00	145,00	149,00
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)																
Pdesignh	°	kW	-	-	-	88,80	97,30	112,20	116,80	124,50	129,90	144,90	162,80	157,50	182,70	172,10
	A	kW	-	-	-	90,20	99,60	112,20	116,80	125,80	135,00	149,00	164,10	157,00	183,30	173,60
	E	kW	53,46	53,46	53,46	78,80	90,20	99,60	112,20	116,80	125,80	135,00	149,00	164,10	157,00	183,30
	L	kW	52,20	60,22	68,44	78,20	88,80	97,30	112,20	116,80	124,50	129,90	144,90	162,80	157,50	182,70
ηsh	°	%	-	-	-	135,90	139,50	140,40	130,40	140,30	129,50	134,00	137,30	126,30	138,40	128,50
	A	%	-	-	-	138,00	142,80	143,20	133,00	143,10	132,10	139,80	141,30	128,00	142,00	133,00
	E	%	158,26	158,26	158,26	152,70	138,50	142,80	143,20	133,00	143,10	132,10	139,80	141,30	128,40	142,00
	L	%	156,16	152,79	152,22	150,00	135,90	139,50	140,40	130,50	140,30	129,50	134,00	137,30	126,30	138,40
SCOP	°	-	-	-	-	3,47	3,56	3,58	3,34	3,58	3,31	3,43	3,51	3,23	3,54	3,29
	A	-	-	-	-	3,53	3,65	3,66	3,40	3,65	3,38	3,57	3,61	3,29	3,63	3,40
	E	-	-	-	-	4,03	4,04	4,03	3,89	3,54	3,65	3,65	3,40	3,66	3,38	3,40
	L	-	-	-	-	3,98	3,89	3,88	3,83	3,47	3,56	3,59	3,34	3,58	3,31	3,43

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Electric data																	
Maximum current (FLA)	°	A	-	-	-	-	74,3	79,2	88,1	100,3	97,0	113,5	115,9	130,5	134,6	147,2	144,4
	A	A	-	-	-	-	74,3	79,2	88,1	100,3	97,0	117,7	115,9	130,5	134,6	147,2	144,4
	E	A	42,6	49,2	56,9	65,3	74,3	79,2	88,1	100,3	97,0	117,7	115,9	130,5	134,6	147,2	144,4
	L	A	41,5	49,2	55,8	65,3	74,3	79,2	88,1	100,3	97,0	113,5	115,9	130,5	134,6	147,2	144,4
Peak current (LRA)	°	A	-	-	-	-	279,8	284,7	331,4	214,1	340,3	227,2	367,0	381,6	278,1	479,6	349,8
	A	A	-	-	-	-	279,8	284,7	331,4	214,1	340,3	231,5	367,0	381,6	278,1	479,6	349,8
	E	A	148,0	163,0	170,6	208,9	279,8	284,7	331,4	214,1	340,3	231,5	367,0	381,6	278,1	479,6	349,8
	L	A	146,9	163,0	169,5	208,9	279,8	284,7	331,4	214,1	340,3	227,2	367,0	381,6	278,1	479,6	349,8

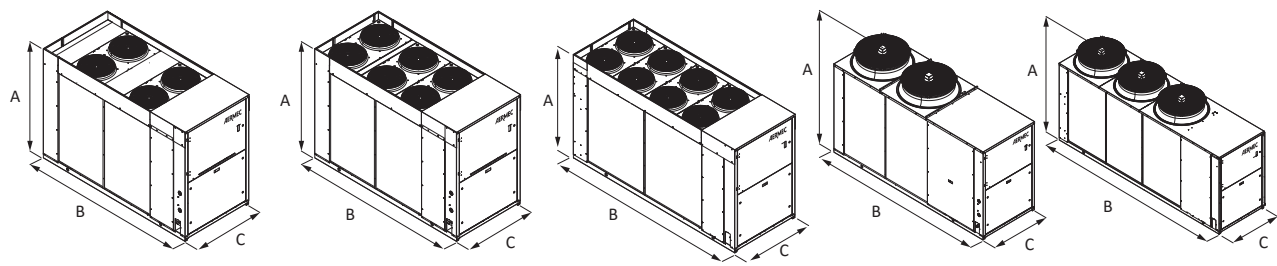
GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Compressor																	
Type	°A,E,L	type	Scroll														
Compressor regulation	°A,E,L	Type	On-Off														
Number	°A	no.	-	-	-	-	2	2	2	4	2	4	2	2	4	2	4
	E,L	no.	2	2	2	2	2	2	2	4	2	4	2	2	4	2	4
Circuits	°A	no.	-	-	-	-	1	1	1	2	1	2	1	1	2	1	2
	E,L	no.	1	1	1	1	1	1	1	2	1	2	1	1	2	1	2
Refrigerant	°A,E,L	type	R410A														
Refrigerant charge (1)	°	kg	-	-	-	-	12,2	12,2	16,8	17,6	16,8	20,0	24,5	24,5	23,0	24,5	23,0
	A	kg	-	-	-	-	15,9	15,8	17,8	19,8	18,4	21,6	28,6	28,6	27,0	28,6	27,0
	E	kg	9,1	10,7	11,1	12,5	15,9	15,8	17,8	19,8	18,4	21,6	28,6	28,6	27,0	28,6	27,0
	L	kg	8,8	9,4	10,3	11,0	12,2	12,2	16,8	17,6	16,8	20,0	24,5	24,5	23,0	24,5	23,0
System side heat exchanger																	
Type	°A,E,L	type	Brazed plate														
Number	°A	no.	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1
	E,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Connections (in/out)	°A,E,L	Type	Grooved joints														
Sizes (in/out)	°A,E,L	Ø	2" 1/2														
Fan																	
Type	°A,E,L	type	Axial														
Number	°	no.	-	-	-	-	2	2	2	2	2	2	3	3	3	3	3
	A	no.	-	-	-	-	2	2	2	2	3	3	3	2	3	3	3
	E	no.	6	6	8	8	2	2	2	2	2	3	3	3	3	3	3
	L	no.	4	6	6	8	2	2	2	2	2	2	3	3	3	3	3
Air flow rate	°	m³/h	-	-	-	-	42785	42785	41094	41065	41094	39542	62015	61936	61936	61936	61936
	A	m³/h	-	-	-	-	41080	41080	39461	39461	59701	59684	59684	39461	61963	59684	59684
	E	m³/h	21230	22746	28176	25787	31149	31149	29855	29855	29855	47085	45202	45187	45187	45187	45187
	L	m³/h	15574	21226	22732	28156	32650	32650	31613	31169	31161	29823	47087	47125	47125	47125	47125
Sound data calculated in cooling mode (2)																	
Sound power level	°	dB(A)	-	-	-	-	86,6	86,9	87,1	86,5	87,3	86,5	88,8	88,9	88,2	89,4	89,5
	A	dB(A)	-	-	-	-	86,6	86,9	87,1	86,5	87,3	88,2	88,8	88,9	88,2	89,4	89,5
	E	dB(A)	73,0	73,5	74,3	74,5	82,2	82,9	83,3	76,7	83,7	77,8	84,9	85,0	78,0	86,1	84,0
	L	dB(A)	72,4	73,5	73,9	74,5	82,2	82,9	83,3	76,7	83,7	77,1	84,9	85,0	78,0	86,1	84,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	-	54,8	55,0	55,2	54,6	55,4	54,6	56,8	56,9	56,2	57,4	57,5
	A	dB(A)	-	-	-	-	54,8	55,0	55,2	54,6	55,4	56,2	56,8	56,9	56,2	57,4	57,5
	E	dB(A)	41,3	41,7	42,5	42,7	50,3	51,0	51,4	44,8	51,8	45,8	52,9	53,1	46,0	54,1	52,0
	L	dB(A)	40,7	41,7	42,1	42,7	50,3	51,0	51,4	44,8	51,8	45,3	52,9	53,1	46,0	54,1	52,0

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Dimensions and weights																
A	°A	mm	-	-	-	-	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	E,L	mm	1680	1680	1680	1680	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
B	°	mm	-	-	-	-	3200	3200	3200	3200	3200	3200	4010	4010	4010	4010
	A	mm	-	-	-	-	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
	E	mm	2450	2950	2950	2950	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
	L	mm	2450	2450	2950	2950	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
C	°A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
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