

# 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
- Low refrigerant charge
- 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 control, with keyboard and LCD display, for easy access on the unit with 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:** only in the non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBAC-ONE:** Ethernet communication interface for Bacnet/IP and Modbus TCP/IP protocols, HTTPS protocol for web interface, encrypted communication protocols and access credential management in accordance with the latest standards. One accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP and Modbus TCP/IP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS plat-

forms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device remotely controls, manages and remotely monitors a chiller/heat pump using a PC, smartphone or tablet via a Cloud connection. AERNET acts as Master while each connected unit is configured as Slave up to a maximum of 6 control cards. The connection is made via cable and/or USB key. Wi-Fi connectivity is not available. It is also possible to save a log file with all the data from the connected units to your terminal with a simple click for possible post-analysis. With the purchase of the Router, the Customer benefits from a 24-month free period during which he can use the Aernet Service at no additional cost. At the end of this initial period, the Service may be renewed by subscribing to a 1, 2 or 3 year subscription. For further details on costs and renewal methods, please contact our office or consult the technical documentation available on our website. [www.aermec.com](http://www.aermec.com).

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

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

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**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 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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERBAC-ONE	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERBACP	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERLINK	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER-EVO	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SGD	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

### Remote panel

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
PR4	°A					*	*	*	*	*	*	*	*	*	*	*
	E,L	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754	
<b>Fans: M</b>																
E, L	DCPX141	DCPX141	DCPX141	DCPX141	-	-	-	-	-	-	-	-	-	-	-	
<b>Fans: °</b>																
°	-	-	-	-	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											

### Antivibration

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754	
<b>Integrated hydronic kit: 00, 11, 12, 13, 14, P1, P2, P3, P4</b>																
°	-	-	-	-	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	VT22	VT22	VT22	VT22	VT22	VT22	
<b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4</b>																
°	-	-	-	-	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	VT22	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 3 (1)									
A	-	-	-	-	GP2 x 2 (1)	GP2 x 3 (1)									
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 3 (1)									
L	GP3	GP3	GP4	GP4	GP2 x 2 (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	0652	0654	0682	0702	0704	0752	0754
° A	-	-	-	-	-	-	-	-	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)	DRENRB604 (1)	DRENRB604 (1)	DRENRB604 (1)
E, L	DRENRB282 (1)	DRENRB302 (1)	DRENRB332 (1)	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB602 (1)	DRENRB602 (1)	DRENRB604 (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														

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
<b>1,2,3</b>	<b>NRB</b>
	<b>Size</b>
<b>4,5,6,7</b>	0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754
<b>8</b>	<b>Operating field</b>
X	Electronic thermostatic expansion valve (1)
Y	Double mechanical thermostat for low temperature (2)
Z	Low temperature electronic thermostatic valve (3)
°	Standard mechanic thermostatic valve (1)
<b>9</b>	<b>Model</b>
H	Heat pump
<b>10</b>	<b>Heat recovery</b>
D	With desuperheater (4)
°	Without heat recovery
<b>11</b>	<b>Version</b>
°	Standard
A	High efficiency
E	Silenced high efficiency (5)
L	Standard silenced (5)
<b>12</b>	<b>Coils</b>
R	Copper pipes-copper fins
None	None
V	Copper pieps-Coated aluminium fins
°	Copper-aluminium
<b>13</b>	<b>Fans</b>
J	Inverter
M	Oversized (6)
°	Standard
<b>14</b>	<b>Power supply</b>
°	400V ~ 3N 50Hz with magnet circuit breakers
<b>15,16</b>	<b>Integrated hydronic kit</b>
	<b>Without hydronic kit</b>
00	Without hydronic kit
	<b>Kit with storage tank and pump/s</b>
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
	<b>Kit with pump/s and storage tank with holes for heaters</b>
05	Storage tank with holes for heaters and single low head pump (7)
06	Storage tank with holes for heaters and pump low head + stand-by pump (7)
07	Storage tank with holes for heaters and single high head pump (7)
08	Storage tank with holes for heaters and pump high head + stand-by pump (7)
	<b>Double loop</b>
09	Double loop
	<b>Kit with pump/s</b>
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	<b>Kit with inverter pump/s to fixed speed</b>
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
	<b>Kit with storage tank and inverter pump/s to fixed speed</b>
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
	<b>Kit with storage tank and variable speed inverter pump/s</b>
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) 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
<b>Fans: °</b>																
<b>Cooling performance 12 °C / 7 °C (1)</b>																
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	-	-	-	-	60,80	66,60	73,70	83,00	83,10	91,80	89,60	101,90	105,00	115,80	116,30
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	-	-	-	-	15.705	17.177	19.972	19.876	21.484	22.988	25.997	29.247	27.534	32.236	31.116
Pressure drop system side	kPa	-	-	-	-	35	42	37	44	43	44	50	61	65	74	59
<b>Heating performance 40 °C / 45 °C (2)</b>																
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	-	-	-	-	56,10	60,00	68,30	76,60	75,60	86,90	88,70	98,80	103,90	109,60	110,90
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	-	-	-	-	16.773	18.334	21.443	22.371	23.594	24.863	27.527	30.948	29.797	34.460	32.710
Pressure drop system side	kPa	-	-	-	-	40	48	43	56	52	52	56	69	76	84	65

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; 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
<b>Fans: °</b>																
<b>Cooling performance 12 °C / 7 °C (1)</b>																
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	35,30	41,00	46,60	55,20	59,30	65,70	73,50	83,90	83,80	93,60	87,00	100,30	103,20	115,60	115,80
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	8.974	10.197	11.584	13.455	15.234	16.630	19.200	19.020	20.540	21.776	25.312	28.324	26.677	31.068	29.958
Pressure drop system side	kPa	33	42	33	45	33	39	34	40	39	40	48	58	60	69	55
<b>Heating performance 40 °C / 45 °C (2)</b>																
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	31,90	38,50	43,50	50,50	56,10	60,00	68,30	76,60	75,60	86,90	88,70	98,80	103,90	109,60	110,90
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	9.973	11.376	13.056	14.711	16.773	18.334	21.443	22.371	23.594	24.863	27.527	30.948	29.797	34.460	32.710
Pressure drop system side	kPa	41	53	42	54	40	47	43	55	52	52	56	69	75	84	65

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; 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
<b>Fans: °</b>																
<b>Cooling performance 12 °C / 7 °C (1)</b>																
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	-	-	-	-	57,40	61,50	68,40	73,30	74,30	78,70	85,50	93,90	99,30	102,30	106,30
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	-	-	-	-	16.684	18.331	21.277	21.205	23.007	24.462	28.216	30.726	28.924	34.406	32.698
Pressure drop system side	kPa	-	-	-	-	26	31	32	38	38	50	44	52	50	56	54
<b>Heating performance 40 °C / 45 °C (2)</b>																
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	-	-	-	-	55,80	59,70	66,50	73,10	73,70	85,60	87,30	96,20	99,10	105,70	107,10
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	-	-	-	-	17.406	19.230	21.553	22.489	23.953	25.914	28.469	31.171	29.889	34.800	32.956
Pressure drop system side	kPa	-	-	-	-	28	34	33	42	41	56	45	54	54	57	55

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; 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
<b>Fans: °</b>																
<b>Cooling performance 12 °C / 7 °C (1)</b>																
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	32,00	36,50	42,00	46,60	55,80	60,50	67,90	73,60	74,60	76,20	83,00	92,50	97,50	102,30	105,80
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	9.530	10.696	12.052	13.983	16.181	17.722	20.498	20.255	22.037	23.819	27.431	29.692	27.947	33.000	31.425
Pressure drop system side	kPa	23	29	26	35	24	29	30	34	34	48	41	49	47	51	50
<b>Heating performance 40 °C / 45 °C (2)</b>																
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	32,70	38,10	44,10	50,00	55,80	59,70	66,60	73,10	73,70	85,60	87,30	96,20	99,10	105,70	107,10
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	10.227	11.816	13.289	15.100	17.406	19.230	21.553	22.489	23.953	25.914	28.469	31.171	29.889	34.800	32.956
Pressure drop system side	kPa	26	35	31	41	28	34	33	42	41	56	45	54	54	57	55

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C  
 (2) Data EN 14511:2022; 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
<b>Fans: °</b>																
<b>Cooling performance 23 °C / 18 °C (1)</b>																
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	-	-	-	-	65,10	72,10	79,80	89,40	90,10	99,00	95,60	109,70	111,50	125,70	125,90
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	-	-	-	-	21.190	23.054	26.805	26.775	28.622	31.700	35.175	39.395	37.837	42.931	42.743
Pressure drop system side	kPa	-	-	-	-	63	75	67	81	76	84	92	111	123	131	112
<b>Heating performance 30 °C / 35 °C (2)</b>																
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	-	-	-	-	45,70	49,00	55,80	61,30	61,80	69,70	72,30	79,90	83,80	87,90	89,90
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	-	-	-	-	17.058	18.508	21.998	22.936	24.118	25.357	28.248	31.616	30.551	34.851	33.261
Pressure drop system side	kPa	-	-	-	-	41	49	45	59	54	54	59	72	80	86	68

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C  
 (2) Data EN 14511:2022; 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
<b>Fans: °</b>																
<b>Cooling performance 23 °C / 18 °C (1)</b>																
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	39,10	44,50	50,60	60,10	64,30	72,00	81,00	92,40	92,60	103,90	94,10	109,80	111,50	127,60	127,80
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	12.041	13.740	15.960	18.270	20.427	22.163	25.508	25.376	27.064	29.542	34.006	37.824	36.327	41.017	40.668
Pressure drop system side	kPa	59	77	63	83	59	69	61	70	68	73	86	103	112	120	101
<b>Heating performance 30 °C / 35 °C (2)</b>																
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	25,00	30,40	34,50	40,20	45,70	49,00	55,80	61,30	61,70	69,70	72,30	79,90	83,80	87,90	89,90
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	10.168	11.516	13.317	14.972	17.058	18.508	21.998	22.936	24.118	25.357	28.248	31.616	30.551	34.851	33.261
Pressure drop system side	kPa	42	54	44	56	41	48	45	57	54	54	59	72	79	86	68

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C  
 (2) Data EN 14511:2022; 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
<b>Fans: °</b>																
<b>Cooling performance 23 °C / 18 °C (1)</b>																
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	-	-	-	-	61,20	66,40	73,60	78,90	80,10	82,50	91,30	101,40	105,20	111,60	114,70
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	-	-	-	-	22.699	24.821	28.771	29.452	30.874	34.255	38.412	41.683	40.019	46.336	45.163
Pressure drop system side	kPa	-	-	-	-	48	57	59	73	68	98	81	97	96	102	103
<b>Heating performance 30 °C / 35 °C (2)</b>																
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	-	-	-	-	45,60	48,90	54,50	58,50	60,20	69,10	71,20	77,80	80,00	84,90	86,90
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	-	-	-	-	18.004	19.795	22.128	23.077	24.492	26.674	29.206	31.801	30.649	35.173	33.469
Pressure drop system side	kPa	-	-	-	-	30	36	35	45	43	60	47	56	56	58	57

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C  
 (2) Data EN 14511:2022; 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
<b>Fans: °</b>																
<b>Cooling performance 23 °C / 18 °C (1)</b>																
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	35,10	39,60	45,00	50,70	60,50	66,50	74,70	81,20	82,40	81,00	90,00	101,80	105,50	114,30	117,10
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	13.219	14.836	16.740	19.268	21.829	23.767	27.392	27.721	29.185	33.098	37.025	39.827	38.232	43.759	42.750
Pressure drop system side	kPa	43	55	50	66	44	52	53	64	60	92	75	88	88	91	92
<b>Heating performance 30 °C / 35 °C (2)</b>																
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	25,70	30,10	34,90	39,80	45,60	48,90	54,50	58,50	60,20	69,10	71,20	77,80	80,00	84,90	86,90
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	10.456	12.125	13.636	15.617	18.004	19.795	22.128	23.077	24.492	26.674	29.206	31.801	30.649	35.173	33.469
Pressure drop system side	kPa	27	37	33	43	30	36	35	45	43	60	47	56	56	58	57

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C  
 (2) Data EN 14511:2022; 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	
<b>Fans: °</b>																	
<b>SEER - 12/7 (EN14825: 2018)</b>																	
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	3,92
	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	3,71
Seasonal efficiency	°	%	-	-	-	-	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	159,00
	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	154,00
	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	145,00
Water Regulation (1)	°A	type	-	-	-	-	FW/VO										
	E,L	type	FW/VO														
<b>Performance in average ambient conditions (average) - 35 °C (2)</b>																	
Efficiency energy class	°A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	E,L		A++	A++	A++	-	-	-	-	-	-	-	-	-	-	-	-
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	173,60
	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	172,10
SCOP	°	W/W	-	-	-	-	3,47	3,56	3,59	3,34	3,58	3,31	3,43	3,51	3,23	3,54	3,29
	A	W/W	-	-	-	-	3,53	3,65	3,66	3,40	3,65	3,38	3,57	3,61	3,29	3,63	3,40
	E	W/W	4,03	4,03	4,03	3,89	3,54	3,65	3,66	3,40	3,65	3,38	3,57	3,61	3,29	3,63	3,40
	L	W/W	3,98	3,89	3,88	3,83	3,47	3,56	3,59	3,34	3,58	3,31	3,43	3,51	3,23	3,54	3,29
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	128,40	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	133,00
	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	128,50
Water Regulation (1)	°A	type	-	-	-	-	FW/VO										
	E,L	type	FW/VO														

(1) VW/VO - variable water flow rate/variable outlet temperature; FW/VO - fixed water flow rate/variable outlet temperature; VW/FO - variable water flow rate/fixed outlet temperature; FW/FO - fixed water flow rate/fixed outlet temperature.

(2) 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	
<b>Electric data</b>																	
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

### Refrigerant circuit

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
<b>Fans: °</b>																
<b>Compressor</b>																
Type	°A	type	-	-	-	-	Scroll									
	E,L	type	Scroll													
Compressor regulation	°A	Type	-	-	-	-	On-Off									
	E,L	Type	On-Off													
Number	°A	no.	-	-	-	-	2	2	2	4	2	4	2	4	2	4
	E,L	no.	2	2	2	2	2	2	2	4	2	4	2	4	2	4
Circuits	°A	no.	-	-	-	-	1	1	1	2	1	2	1	2	1	2
	E,L	no.	1	1	1	1	1	1	1	2	1	2	1	1	2	1
Refrigerant	°A	type	-	-	-	-	R410A									
	E,L	type	R410A													
Total refrigerant charge (1)	°	kg	-	-	-	-	12,20	12,20	16,80	17,60	16,80	20,00	24,50	24,50	23,00	24,50
	A	kg	-	-	-	-	15,90	15,80	17,80	19,80	18,40	21,60	28,60	28,60	27,00	28,60
	E	kg	9,10	10,70	11,10	12,50	15,90	15,80	17,80	19,80	18,40	21,60	28,60	28,60	27,00	28,60
	L	kg	8,80	9,40	10,30	11,00	12,20	12,20	16,80	17,60	16,80	20,00	24,50	24,50	23,00	24,50
Potential global heating (GWP)	°A		-	-	-	-	2088	2088	2088	2088	2088	2088	2088	2088	2088	2088
	E,L		2088	2088	2088	2088	2088	2088	2088	2088	2088	2088	2088	2088	2088	2088
Equivalent CO <sub>2</sub>	°	tCO <sub>2</sub> eq	-	-	-	-	25,47	25,47	35,08	36,74	35,08	41,76	51,15	51,16	48,02	51,15
	A	tCO <sub>2</sub> eq	-	-	-	-	33,19	33,00	39,25	41,34	38,42	45,10	59,71	59,72	56,37	59,72
	E	tCO <sub>2</sub> eq	19,00	22,34	23,17	26,10	33,19	33,00	39,25	41,34	38,42	45,10	59,71	59,72	56,37	59,72
	L	tCO <sub>2</sub> eq	18,37	10,23	21,51	22,97	25,47	25,47	35,08	36,74	35,08	41,76	51,15	51,16	48,02	51,15

(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.

### System side heat exchanger

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
<b>Hydraulic connections</b>																
Connections (in/out)	°A,E,L	Type	Grooved joints													
Sizes (in/out)	°A,E,L	Ø	2"1/2													

### Fans

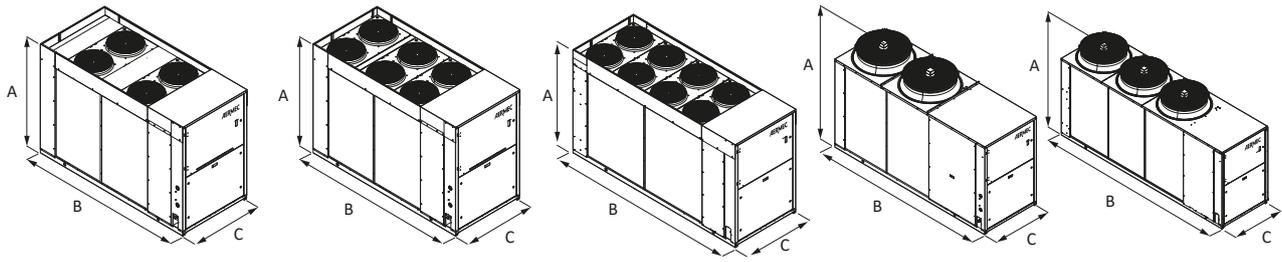
Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
<b>Fan</b>																
Type	°A,E,L	type	Axial													
	°	no.	-	-	-	-	2	2	2	2	2	2	3	3	3	3
Number	A	no.	-	-	-	-	2	2	2	2	3	3	3	3	3	
	E	no.	6	6	8	8	2	2	2	2	3	3	3	3	3	
	L	no.	4	6	6	8	2	2	2	2	2	3	3	3	3	
	°	m <sup>3</sup> /h	-	-	-	-	42.785	42.785	41.094	41.065	41.094	39.542	62.015	61.936	61.936	61.936
Air flow rate	A	m <sup>3</sup> /h	-	-	-	-	41.080	41.080	39.461	39.461	39.461	59.684	59.701	59.684	59.684	
	E	m <sup>3</sup> /h	21.230	22.746	28.176	25.787	31.149	31.149	29.855	29.855	29.855	47.085	45.202	45.187	45.187	
	L	m <sup>3</sup> /h	15.574	21.226	22.732	28.156	32.650	32.650	31.613	31.169	31.161	29.823	47.087	47.125	47.125	
	°	m <sup>3</sup> /h	-	-	-	-	42.785	42.785	41.094	41.065	41.094	39.542	62.015	61.936	61.936	

### Sound data

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
<b>Sound data calculated in cooling mode (1)</b>																
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
	A	dB(A)	-	-	-	-	86,6	86,9	87,1	86,5	87,3	88,2	88,8	88,9	88,2	89,4
	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
	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
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
	A	dB(A)	-	-	-	-	54,8	55,0	55,2	54,6	55,4	56,2	56,8	56,9	56,2	57,4
	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
	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

(1) 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
<b>Dimensions and weights</b>																
A	°A	mm	-	-	-	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898
	E,L	mm	1.680	1.680	1.680	1.680	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898	1.898
B	°	mm	-	-	-	3.200	3.200	3.200	3.200	3.200	3.200	4.010	4.010	4.010	4.010	4.010
	A	mm	-	-	-	3.200	3.200	3.200	3.200	3.200	4.010	4.010	4.010	4.010	4.010	4.010
	E	mm	2.450	2.950	2.950	2.950	3.200	3.200	3.200	3.200	4.010	4.010	4.010	4.010	4.010	4.010
C	L	mm	2.450	2.450	2.950	2.950	3.200	3.200	3.200	3.200	3.200	4.010	4.010	4.010	4.010	4.010
	°A	mm	-	-	-	-	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
	E,L	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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