

NRG 0282-0754 F

Air-water chiller with free-cooling

Cooling capacity 58 ÷ 190 kW

- High efficiency also at partial loads
- Reduced amount of refrigerant
- Compact dimensions



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with streamlined scroll compressors used with R32 gas.

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger.

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

VERSIONS

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 48°C external air temperature. Unit can produce chilled water up to -10 °C.

For more information refer to the selection program and to the dedicated documentation.

Dual-circuit unit

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

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO₂ values.

■ *The leak detector is supplied as per standard.*

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.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal 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 pumps also inverter.

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.

ACCESSORIES

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

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.

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.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
AER485P1	A					*	*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*	*
AERNET	A					*	*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A					*	*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*	*
PGD1	A					*	*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Integrated hydronic kit: 00											
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22	VT22
Integrated hydronic kit: 03, 04											
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22	VT22
Integrated hydronic kit: I3, I4											
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22	VT22
Integrated hydronic kit: K3, K4											
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22	VT22
Integrated hydronic kit: P3, P4											
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22	VT22

The accessory cannot be fitted on the configurations indicated with -

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
A	-	-	-	-	GP2 x 2 (1)	-	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (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	0554	0604	0654	0704	0754
A	-	-	-	-	DRENRG502FC	DRENRG552FC	DRENRG554	DRENRG604	DRENRG654	DRENRG704	DRENRG754
E	DRENRG282FC	DRENRG302FC	DRENRG332FC	DRENRG352FC	DRENRG502FC	DRENRG552FC	DRENRG554	DRENRG604	DRENRG654	DRENRG704	DRENRG754

The accessory cannot be fitted on the configurations indicated with -

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

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
A	-	-	-	-	RIFNRG502FC	RIFNRG552FC	RIFNRG554	RIFNRG604	RIFNRG654	RIFNRG704	RIFNRG754
E	RIFNRG282FC	RIFNRG302FC	RIFNRG332FC	RIFNRG352FC	RIFNRG502FC	RIFNRG552FC	RIFNRG554	RIFNRG604	RIFNRG654	RIFNRG704	RIFNRG754

The accessory cannot be fitted on the configurations indicated with -

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

CONFIGURATOR

Field	Description
1,2,3	NRG
4,5,6,7	Size 0282, 0302, 0332, 0352, 0502, 0552, 0554, 0604, 0654, 0704, 0754
8	Operating yield
X	Electronic thermostatic expansion valve
Z	Low temperature electronic thermostatic valve
9	Model
F	Free-cooling
10	Heat recovery
°	Without heat recovery
D	With desuperheater (1)
11	Version
A	High efficiency
E	Silenced high efficiency (2)
12	Coils / free-cooling coils
°	Copper-aluminium / Copper-aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
13	Fans
°	Standard
J	Inverter (3)
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
00	Without hydronic kit
	Kit with storage tank and pump/s
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to fixed speed
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
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump

(1) Cannot be fitted on the configurations "03-04-K3-K4".

(2) The size 0282-0302-0332-0352 only available in low noise versions.

(3) As standard in sizes from 0282 to 0352

PERFORMANCE SPECIFICATIONS

NRG - A

Size		0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Cooling performance chiller operation (1)												
Cooling capacity	kW	-	-	-	-	100,8	111,4	116,9	134,7	148,5	168,3	190,0
Input power	kW	-	-	-	-	31,5	35,1	38,4	43,2	49,0	58,5	67,0
Cooling total input current	A	-	-	-	-	60,0	63,0	63,0	83,0	94,0	114,0	123,0
EER	W/W	-	-	-	-	3,20	3,18	3,05	3,12	3,03	2,88	2,84
Water flow rate system side	l/h	-	-	-	-	17316	19137	20081	23139	25509	28916	32647
Pressure drop system side	kPa	-	-	-	-	43	52	44	60	72	84	85
Cooling performances with free-cooling (2)												
Cooling capacity	kW	-	-	-	-	73,2	75,6	76,6	89,6	92,2	95,1	97,5
Input power	kW	-	-	-	-	3,7	3,7	3,8	5,6	5,6	5,6	5,6
Free cooling total input current	A	-	-	-	-	7,0	6,6	6,3	11,0	11,0	11,0	10,0
EER	W/W	-	-	-	-	19,94	20,59	20,14	16,15	16,62	17,14	17,56
Water flow rate system side	l/h	-	-	-	-	17316	19137	20081	23139	25509	28916	32647
Pressure drop system side	kPa	-	-	-	-	63	76	71	65	78	90	93

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

NRG - E

Size		0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Cooling performances chiller operation (1)												
Cooling capacity	kW	58,5	64,5	71,8	81,3	98,0	108,0	112,6	131,2	144,0	162,0	181,4
Input power	kW	18,7	22,1	24,7	30,4	32,0	36,0	39,7	44,1	50,1	60,7	70,5
Cooling total input current	A	33,0	44,0	50,0	62,0	58,0	62,0	63,0	80,0	91,0	113,0	123,0
EER	W/W	3,13	2,92	2,91	2,67	3,06	3,00	2,83	2,98	2,87	2,67	2,57
Water flow rate system side	l/h	10057	11082	12338	13965	16843	18547	19341	22540	24736	27830	31164
Pressure drop system side	kPa	20	24	29	28	40	49	41	57	68	78	77
Cooling performances with free-cooling (2)												
Cooling capacity	kW	39,2	44,0	48,8	51,0	73,2	75,6	76,6	89,6	92,2	95,1	97,5
Input power	kW	0,8	0,8	1,1	1,1	3,7	3,7	3,8	5,6	5,6	5,6	5,6
Free cooling total input current	A	1,5	1,7	2,2	2,2	6,6	6,3	6,1	10,0	10,0	10,0	9,7
EER	W/W	46,65	52,31	45,70	47,80	19,94	20,59	20,14	16,15	16,62	17,14	17,56
Water flow rate system side	l/h	10057	11082	12338	13965	16843	18547	19341	22540	24736	27830	31164
Pressure drop system side	kPa	35	31	40	41	59	71	66	61	74	84	85

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

ENERGY DATA BY TYPE OF FAN

Size		0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
SEPR - (EN14825: 2018) High temperature with standard fans (1)												
SEPR	A W/W	-	-	-	-	6,43	6,30	7,50	7,56	7,17	6,57	6,34
	E W/W	7,11	6,66	6,65	6,21	6,34	6,14	7,16	7,24	7,02	6,39	6,12

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size		0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Electric data												
Maximum current (FLA)	A A	-	-	-	-	-	79,1	80,5	100,1	111,4	132,7	144,0
	E A	42,3	50,7	58,0	68,7	73,5	79,1	80,5	100,1	111,4	133,0	144,0
Peak current (LRA)	A A	-	-	-	-	-	283,3	200,8	195,2	225,7	275,7	353,8
	E A	162,7	145,8	172,3	211,7	277,6	283,3	200,8	195,2	225,7	276,0	354,0

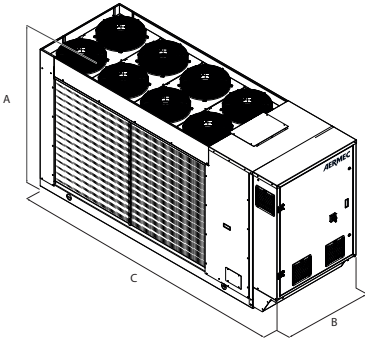
■ Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Compressor													
Type	A,E	type						Scroll					
Compressor regulation	A,E	Type						On/Off					
Number	A,E	no.	2	2	2	2	2	2	4	4	4	4	4
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type						R32					
System side heat exchanger													
Type	A,E	type						Brazed plate					
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections													
Sizes (in/out)	A,E	Ø						2" 1/2					
Fan													
Type	A,E	type						Axial					
Number	A	no.	-	-	-	-	2	2	2	3	3	3	3
	E	no.	6	6	8	8	2	2	2	3	3	3	3
Air flow rate	A	m³/h	-	-	-	-	36078	36078	36078	54481	54481	54480	54480
	E	m³/h	23294	22734	26914	26914	27482	27482	27482	41449	41449	41449	41449
Sound data calculated in cooling mode (1)													
Sound power level	A	dB(A)	-	-	-	-	-	85,6	84,2	86,4	86,4	86,4	86,4
	E	dB(A)	73,0	73,9	74,3	74,5	81,3	82,1	76,1	77,5	77,5	77,5	77,5

(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	0554	0604	0654	0704	0754
Dimensions and weights													
A	A	mm	-	-	-	-	1907	1907	1907	1900	1900	1900	1900
	E	mm	1658	1658	1658	1658	1907	1907	1907	1900	1900	1900	1900
B	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	A	mm	-	-	-	-	3567	3567	3567	4467	4467	4467	4467
	E	mm	3317	3317	3317	3317	3567	3567	3567	4467	4467	4467	4467

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.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NRL 0280-0750 F

Air-water chiller with free-cooling

Cooling capacity 59 ÷ 194,8 kW

- High efficiency also at partial loads
- Compact dimensions
- Quick & easy installation



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Outdoor units with scroll compressors, axial fans and plate heat exchangers. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A High efficiency
- E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 44°C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round. As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Free-cooling circuit with glycol-water solution for glycol-free units

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

Electronic expansion valve

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

Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

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.
- **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.

ACCESSORIES

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

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.

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.

PRM1: It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*
AERNET	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*
PGD1	A					*	*	*	*	*	*
	E	*	*	*	*	*	*	*	*	*	*

Anti-intrusion grid

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP10 x 3 (1)
E	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP10 x 3 (1)

(1) x _ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

Antivibration - model F

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23
Integrated hydronic kit: 03, 04										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT13	VT13	VT13	VT13	VT11	VT11	VT22	VT22	VT22	VT23
Integrated hydronic kit: P3, P4										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23

The accessory cannot be fitted on the configurations indicated with -

Antivibration - model K

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23
Integrated hydronic kit: 03, 04										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT13	VT13	VT13	VT13	VT11	VT11	VT22	VT22	VT22	VT23
Integrated hydronic kit: P3, P4										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23

The accessory cannot be fitted on the configurations indicated with -

Antivibration - model B

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23

The accessory cannot be fitted on the configurations indicated with -

Heater exchangers

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)
E	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (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

Power factor correction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53
E	RIF50	RIF50	RIF50	RIF51	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53

The accessory cannot be fitted on the configurations indicated with -

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

Manually reset pressure switch

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1
E	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1

The accessory cannot be fitted on the configurations indicated with -

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

CONFIGURATOR

Field	Description
1,2,3	NRL
4,5,6,7	Size 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700, 0750
8	Operating yield
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
Y	Low temperature mechanic thermostatic valve
9	Model
B	Free-cooling glycol free (1)
F	Free-cooling
K	Free-cooling with low pressure drops
10	Heat recovery
°	Without heat recovery
11	Version
A	High efficiency
E	Silenced high efficiency
12	Coils / free-cooling coils
°	Copper-aluminium / Copper-aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
13	Fans
°	Standard (2)
J	Inverter (3)
M	Oversized
14	Power supply
°	400V ~ 3N 50Hz with magnet circuit breakers
1	220V~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
00	Without hydronic kit
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) The system side hydronic kit option is not available for the freecooling glycol free "B" models

(2) As standard in sizes from 0500 ÷ 0750

(3) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.

PERFORMANCE SPECIFICATIONS

NRL - FA/FE

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance chiller operation (1)												
Cooling capacity	A	kW	-	-	-	-	99,0	104,0	132,0	144,0	159,0	191,0
	E	kW	59,0	65,0	74,0	82,0	91,0	95,0	119,0	130,0	147,0	177,0
Input power	A	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8	69,6
	E	kW	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8	76,4
Cooling total input current	A	A	-	-	-	-	61,0	65,0	79,0	84,0	101,0	123,0
	E	A	32,0	38,0	41,0	51,0	67,0	70,0	87,0	97,0	109,0	135,0
EER	A	W/W	-	-	-	-	2,94	2,79	2,97	2,79	2,62	2,74
	E	W/W	3,26	2,98	3,08	2,90	2,46	2,38	2,42	2,17	2,23	2,32
Water flow rate system side	A	l/h	-	-	-	-	17009	17868	22679	24741	27318	32816
	E	l/h	10137	11168	12714	14089	15635	16322	20446	22335	25256	30411
Pressure drop system side	A	kPa	-	-	-	-	60	69	78	73	87	103
	E	kPa	63	53	66	58	51	58	63	60	74	89
Cooling performances with free-cooling (2)												
Cooling capacity	A	kW	-	-	-	-	78,4	79,2	104,3	121,0	132,5	142,4
	E	kW	44,2	51,8	63,2	64,7	78,4	79,2	104,3	121,1	132,5	142,4
Input power	A	kW	-	-	-	-	2,6	2,6	3,9	3,9	5,4	5,4
	E	kW	1,0	1,0	1,4	1,4	2,6	2,6	3,9	3,9	5,4	5,4
Free cooling total input current	A	A	-	-	-	-	4,8	4,6	6,9	6,3	9,0	9,5
	E	A	1,9	1,8	2,3	2,4	4,8	4,6	6,9	6,3	8,9	9,5
EER	A	W/W	-	-	-	-	29,59	29,88	26,74	31,04	24,53	26,36
	E	W/W	42,06	49,31	46,81	47,94	29,59	29,88	26,75	31,04	24,53	26,37
Water flow rate system side	A	l/h	-	-	-	-	15988	16795	21318	23256	25678	30847
	E	l/h	9528	10497	11951	13243	14696	15342	19219	20994	23740	28586
Pressure drop system side	A	kPa	-	-	-	-	70	79	95	95	110	138
	E	kPa	84	61	76	73	59	66	78	77	94	118

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

NRL - KA/KE

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance chiller operation (1)												
Cooling capacity	A	kW	-	-	-	-	101,0	106,1	134,6	146,9	162,2	194,8
	E	kW	60,2	66,3	75,5	83,6	92,8	96,9	121,4	132,6	149,9	180,5
Input power	A	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8	69,6
	E	kW	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8	76,4
Cooling total input current	A	A	-	-	-	-	61,0	65,0	79,0	84,0	101,0	123,0
	E	A	32,0	38,0	41,0	51,0	67,0	70,0	87,0	97,0	109,0	135,0
EER	A	W/W	-	-	-	-	3,00	2,84	3,02	2,84	2,67	2,80
	E	W/W	3,33	3,04	3,15	2,95	2,51	2,42	2,47	2,22	2,28	2,36
Water flow rate system side	A	l/h	-	-	-	-	17353	18229	23126	25239	27868	33469
	E	l/h	10343	11391	12972	14363	15944	16649	20858	22782	25755	31012
Pressure drop system side	A	kPa	-	-	-	-	44	37	42	40	49	35
	E	kPa	34	41	36	43	38	31	34	33	42	30
Cooling performances with free-cooling (2)												
Cooling capacity	A	kW	-	-	-	-	74,6	75,4	92,2	106,1	116,1	125,8
	E	kW	42,9	50,3	61,3	62,8	74,6	75,4	92,2	106,1	116,1	125,9
Input power	A	kW	-	-	-	-	2,6	2,6	3,9	3,9	5,4	5,4
	E	kW	1,0	1,0	1,4	1,4	2,6	2,6	3,9	3,9	5,4	5,4
Free cooling total input current	A	A	-	-	-	-	4,8	4,6	6,9	6,3	9,0	9,5
	E	A	1,9	1,8	2,3	2,4	4,8	4,6	6,9	6,3	8,9	9,5
EER	A	W/W	-	-	-	-	28,15	28,44	23,64	27,19	21,50	23,30
	E	W/W	40,82	47,86	45,40	46,53	28,16	28,44	23,64	27,20	21,50	23,31
Water flow rate system side	A	l/h	-	-	-	-	16311	17135	21738	23724	26195	31460
	E	l/h	9722	10707	12193	13501	14987	15650	19602	21415	24209	29151
Pressure drop system side	A	kPa	-	-	-	-	50	44	51	51	63	56
	E	kPa	43	45	44	53	42	37	42	42	53	48

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

NRL - BA/BE

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance chiller operation (1)												
Cooling capacity	A	kW	-	-	-	-	99,0	104,0	132,0	144,0	159,0	191,0
	E	kW	59,0	65,0	74,0	82,0	91,0	95,0	119,0	130,0	147,0	177,0
Input power	A	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8	69,6
	E	kW	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8	76,4
Cooling total input current	A	A	-	-	-	-	61,0	65,0	79,0	84,0	101,0	123,0
	E	A	32,0	38,0	41,0	51,0	67,0	70,0	87,0	97,0	109,0	135,0
EER	A	W/W	-	-	-	-	2,94	2,79	2,97	2,79	2,62	2,74
	E	W/W	3,26	2,98	3,08	2,90	2,46	2,38	2,42	2,17	2,23	2,32
Water flow rate system side	A	l/h	-	-	-	-	17009	17868	22679	24741	27318	32816
	E	l/h	10137	11168	12714	14089	15635	16322	20446	22335	25256	30411
Pressure drop system side	A	kPa	-	-	-	-	92	101	101	104	120	156
	E	kPa	94	88	90	82	78	84	82	85	103	134
Cooling performances with free-cooling glycol-free (2)												
Cooling capacity	A	kW	-	-	-	-	60,1	60,9	79,2	92,9	101,3	108,9
	E	kW	34,3	39,6	48,7	50,3	60,2	60,9	79,2	92,9	101,3	108,9
Input power	A	kW	-	-	-	-	3,6	3,6	5,2	5,7	7,7	7,7
	E	kW	1,8	1,8	2,4	2,4	3,6	3,6	5,2	5,7	7,7	7,7
Free cooling total input current	A	A	-	-	-	-	6,6	6,4	9,2	9,3	13,0	14,0
	E	A	3,3	3,2	4,0	4,2	6,6	6,4	9,2	9,2	13,0	14,0
EER	A	W/W	-	-	-	-	16,48	16,69	15,23	16,29	13,15	14,14
	E	W/W	18,52	21,40	20,74	21,38	16,48	16,69	15,23	16,30	13,15	14,14
Water flow rate system side	A	l/h	-	-	-	-	17009	17868	22679	24741	27318	32816
	E	l/h	10137	11168	12714	14089	15635	16322	20446	22335	25256	30411
Pressure drop system side	A	kPa	-	-	-	-	92	101	101	104	120	156
	E	kPa	94	88	90	82	78	84	82	85	103	134

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

ENERGY INDICES (REG. 2016/2281 EU)**Model F**

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
SEPR - (EN14825: 2018) High temperature with standard fans (1)												
SEPR	A	W/W	-	-	-	-	6,44	6,18	7,06	6,75	6,29	6,40
	E	W/W	6,44	6,16	6,20	5,82	6,06	5,86	6,50	6,23	5,95	6,06

(1) Calculation performed with FIXED water flow rate.

Model K

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
SEPR - (EN14825: 2018) High temperature with standard fans (1)												
SEPR	A	W/W	-	-	-	-	6,70	6,49	7,35	6,99	6,53	6,77
	E	W/W	6,73	6,34	6,48	6,00	6,29	6,16	6,77	6,48	6,15	6,38

(1) Calculation performed with FIXED water flow rate.

Model B

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
SEPR - (EN14825: 2018) High temperature with standard fans (1)												
SEPR	A	W/W	-	-	-	-	6,22	5,88	6,37	6,21	5,64	5,72
	E	W/W	6,02	5,80	5,80	5,49	5,82	5,60	5,90	5,75	5,40	5,49

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

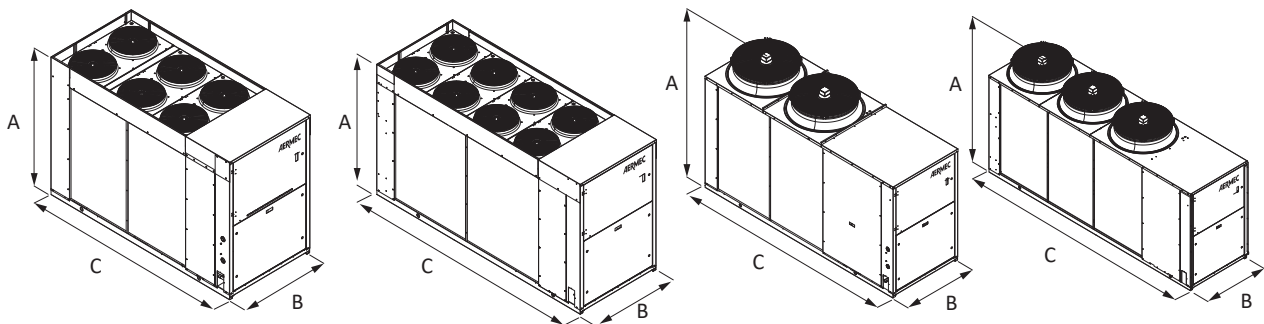
Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Electric data												
Maximum current (FLA)	A	A	-	-	-	-	76,0	81,0	100,0	112,0	122,0	144,0
	E	A	46,0	53,0	58,0	63,0	76,0	81,0	100,0	122,0	122,0	320,0
Peak current (LRA)	A	A	-	-	-	-	214,0	220,0	232,0	243,0	261,0	320,0
	E	A	155,0	184,0	190,0	200,0	214,0	220,0	232,0	243,0	261,0	144,0

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Compressor												
Type	A,E	type	Scroll									
Compressor regulation	A,E	Type	On-Off									
Number	A	no.	-	-	-	-	3	3	4	4	4	4
	E	no.	2	2	2	2	3	3	4	4	4	4
Circuits	A	no.	-	-	-	-	2	2	2	2	2	2
	E	no.	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type	R410A									
System side heat exchanger												
Type	A,E	type	Brazen plate									
Number	A	no.	-	-	-	-	1	1	1	1	1	1
	E	no.	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections												
Connections (in/out)	A,E	Type	Grooved joints									
Sizes (in/out)	A,E	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"
Fan												
Type	A,E	type	Axial									
Fan motor	A	type	-	-	-	-	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
	E	type	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Number	A	no.	-	-	-	-	2	2	3	3	3	3
	E	no.	6	6	8	8	2	2	3	3	3	3
Air flow rate	A	m³/h	-	-	-	-	32500	32500	50000	49000	56000	56000
	E	m³/h	20000	19000	25000	25000	23400	24100	33500	35300	47600	46500
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0	87,0
	E	dB(A)	74,0	74,0	75,0	76,0	76,0	76,0	76,0	77,0	77,0	82,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	50,1	50,1	50,0	51,0	53,0	54,9
	E	dB(A)	42,0	42,2	43,2	44,2	44,0	44,0	44,0	45,0	45,0	50,0

(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			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Dimensions and weights												
A	A	mm	-	-	-	-	1875	1875	1875	1875	1875	1975
	E	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1500
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	A	mm	-	-	-	-	3260	3260	4010	4010	4010	4350
	E	mm	2950	2950	2950	2950	3260	3260	4010	4010	4010	4350
Empty weight	A	kg	-	-	-	-	1079	1083	1386	1460	1540	1889
	E	kg	838	908	913	922	1079	1083	1386	1460	1540	1889

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.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NRB 0800-3600 F

Air-water chiller with free-cooling

Cooling capacity 211 ÷ 1010 kW

- Microchannel coil
- Night mode
- Operation up to 50 °C outdoor air
- High efficiency also at partial loads



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Outdoor units with scroll compressors, axial flow fans, micro-channel coil (source side), plate heat exchanger and thermostatic expansion valve (mechanical or electronic, depending on the model). The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Electronic expansion valve

Electronic thermostatic as standard from size 1800÷3600.

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

Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

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.
- **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.

ACCESSORIES

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

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.

FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

FL: Flow switch.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FB1	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050	AVX1050
E,U	AVX1070	AVX1070	AVX1070	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1057	AVX1057	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1071	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: AH, AI																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: BA, BB, BC, BD																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1071	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: BE, BF, BG																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: BH, BI																	
A	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1078	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: DA, DB, DC, DD																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: DE, DF, DG																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1055	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064
Integrated hydronic kit: DH, DI																	
A	AVX1067	AVX1067	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1079	AVX1076	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1055	AVX1055	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1076	AVX1076	AVX1076	AVX1052	AVX1077	AVX1055	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064
Integrated hydronic kit: PA, PB, PC, PD, PE, PF, PG																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: PH, PI																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1055	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	GP2VN	GP2VN	GP3VNF	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V

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.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

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

GP_V: Anti-intrusion grid kit

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

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

Units 0800A and 0900A with the optional "storage tank" are 3970 mm long and must have the GP2VNA grids installed.

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
A	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1601	RIFNRB1800	RIFNRB2000
E,U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1800	RIFNRB2000

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

Ver	2200	2400	2600	2800	3000	3200	3400	3600
A,E,N,U	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

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

CONFIGURATOR

Configuration options

Field	Description
1,2,3	NRB
4,5,6,7	Size 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
Y	Low temperature mechanic thermostatic valve
Z	Low temperature electronic thermostatic valve
9	Model
F	Free-cooling
P	Free-cooling plus (3)
10	Heat recovery
°	Without heat recovery
D	With desuperheater (4)
11	Version
A	High efficiency
E	Silenced high efficiency
N	Silenced very high efficiency
U	Very high efficiency
12	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium
I	Copper-aluminium / Copper-aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
14	Power supply
°	400 V/3/50 Hz with magnet circuit breakers
15,16	Integrated hydronic kit
	Without hydronic kit
00	Without hydronic kit
	Kit with n° 1 pump (5)
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump

Field	Description
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump
	Kit with storage tank and n° 1 pump
AA	Storage tank and pump A
AB	Storage tank and pump B
AC	Storage tank and pump C
AD	Storage tank and pump D
AE	Storage tank and pump E
AF	Storage tank and pump F
AG	Storage tank and pump G
AH	Storage tank and pump H
AI	Storage tank and pump I
AJ	Storage tank and pump J
	Kit with storage tank and n° 1 pump + stand-by pump
BA	Storage tank with pump A + stand-by pump
BB	Storage tank with pump B + stand-by pump
BC	Storage tank with pump C + stand-by pump
BD	Storage tank with pump D + stand-by pump
BE	Storage tank with pump E + stand-by pump
BF	Storage tank with pump F + stand-by pump
BG	Storage tank with pump G + stand-by pump
BH	Storage tank with pump H + stand-by pump
BI	Storage tank with pump I + stand-by pump
BJ	Storage tank with pump J + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C

(2) Electronic thermostatic as standard from size 1800÷3600.

(3) Free cooling Plus models "P" are compatible only with "on" and "O" coils.

(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(5) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	211,8	234,3	273,4	307,1	335,9	373,3	432,0	474,2	542,2	584,4	655,6	720,2	759,5	803,3	878,1	922,4	962,2
Input power	kW	76,0	88,0	93,9	108,9	124,8	145,6	157,1	185,1	201,0	229,4	243,7	259,3	280,1	307,8	321,2	348,2	374,6
Cooling total input current	A	134,0	152,0	165,0	189,0	215,0	248,0	270,0	316,0	347,0	394,0	423,0	450,0	483,0	529,0	557,0	602,0	646,0
EER	W/W	2,79	2,66	2,91	2,82	2,69	2,56	2,75	2,56	2,70	2,55	2,69	2,78	2,71	2,61	2,73	2,65	2,57
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635	123735	130494	138018	150865	158481	165325
Pressure drop system side	kPa	49	50	68	76	91	99	64	68	88	96	122	71	78	82	99	108	118

Cooling performances with free-cooling (2)

Cooling capacity	kW	139,8	142,0	203,2	208,4	211,6	214,7	280,5	284,4	350,8	354,8	421,5	486,7	491,2	644,2	562,5	566,7	570,0
Input power	kW	7,5	7,5	11,2	11,2	11,2	11,2	15,0	15,0	18,7	18,7	22,5	26,2	26,2	26,2	30,0	30,0	30,0
Free cooling total input current	A	13,0	13,0	20,0	20,0	19,0	19,0	26,0	26,0	32,0	32,0	39,0	46,0	45,0	45,0	52,0	52,0	52,0
EER	W/W	18,64	18,94	18,07	18,53	18,81	19,09	18,71	18,97	18,72	18,93	18,74	18,55	18,72	18,88	18,76	18,90	19,01
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635	123735	130494	138018	150865	158481	165325
Pressure drop system side	kPa	88	97	101	117	139	158	112	125	144	161	188	119	132	142	159	175	190

Model: P

Cooling performance chiller operation (1)

Cooling capacity	kW	210,3	232,4	271,9	305,1	333,3	369,6	428,9	469,8	538,2	579,2	650,8	715,4	754,0	796,6	871,8	914,9	953,7
Input power	kW	76,8	89,2	94,8	110,0	126,2	147,6	158,7	187,5	203,2	232,3	246,6	262,0	283,2	311,5	324,9	352,5	379,6
Cooling total input current	A	135,0	154,0	167,0	191,0	217,0	251,0	272,0	320,0	351,0	399,0	427,0	454,0	487,0	534,0	562,0	608,0	653,0
EER	W/W	2,74	2,61	2,87	2,77	2,64	2,50	2,70	2,51	2,65	2,49	2,64	2,73	2,66	2,56	2,68	2,60	2,51
Water flow rate system side	l/h	36136	39921	46723	52411	57266	63506	73697	80717	92472	99510	111819	122911	129551	136864	149782	157193	163856
Pressure drop system side	kPa	48	49	67	75	89	97	63	66	87	95	120	70	77	81	97	106	116

Cooling performances with free-cooling (2)

Cooling capacity	kW	149,8	152,0	217,8	223,3	226,6	229,5	300,5	304,3	375,9	379,8	451,6	521,6	526,3	530,5	602,5	606,6	609,8
Input power	kW	7,6	7,6	11,4	11,4	11,4	11,4	15,2	15,2	19,0	19,0	22,8	26,7	26,7	26,7	30,5	30,5	30,5
Free cooling total input current	A	13,0	13,0	20,0	20,0	20,0	19,0	26,0	26,0	33,0	33,0	40,0	46,0	46,0	46,0	53,0	53,0	52,0
EER	W/W	19,66	19,95	19,06	19,55	19,83	20,09	19,73	19,98	19,74	19,94	19,76	19,57	19,74	19,90	19,78	19,91	20,01
Water flow rate system side	l/h	36136	29921	46723	52411	57266	63506	73697	80717	92472	99510	111819	122911	129551	136864	149782	157193	163856
Pressure drop system side	kPa	86	95	100	116	137	155	110	123	142	158	185	117	130	140	157	172	186

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	220,6	242,6	265,3	310,3	344,7	379,2	438,5	498,2	546,9	610,1	652,9	714,0	752,8	815,7	885,8	926,2	966,7
Input power	kW	73,4	84,2	95,7	106,6	122,4	142,0	155,3	174,8	199,2	219,5	244,7	257,6	278,8	299,8	316,7	342,9	369,1
Cooling total input current	A	126,0	142,0	160,0	179,0	205,0	236,0	258,0	292,0	333,0	368,0	411,0	432,0	465,0	501,0	531,0	575,0	619,0
EER	W/W	3,00	2,88	2,77	2,91	2,82	2,67	2,82	2,85	2,75	2,78	2,67	2,77	2,70	2,72	2,80	2,70	2,62
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169	122679	129338	140150	152184	159137	166091
Pressure drop system side	kPa	44	53	57	82	90	109	58	75	85	89	102	69	77	85	100	109	119

Cooling performances with free-cooling (2)

Cooling capacity	kW	164,6	168,5	223,0	222,5	227,6	231,2	285,4	338,9	344,8	399,2	403,7	458,1	462,0	516,7	571,9	576,1	579,7
Input power	kW	7,9	7,9	7,9	10,5	10,5	10,5	13,1	15,8	15,8	18,4	18,4	21,0	21,0	23,6	26,3	26,3	26,3
Free cooling total input current	A	13,0	13,0	13,0	18,0	18,0	17,0	22,0	26,0	26,0	31,0	31,0	35,0	35,0	39,0	44,0	44,0	44,0
EER	W/W	20,90	21,39	21,78	21,18	21,67	22,02	21,74	21,51	21,89	21,72	21,97	21,81	22,00	21,87	21,78	21,94	22,08
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169	122679	129338	140150	152184	159137	166091
Pressure drop system side	kPa	67	80	88	120	136	165	95	114	132	139	159	110	122	132	150	163	178

Model: P

Cooling performance chiller operation (1)

Cooling capacity	kW	219,4	241,1	263,2	308,4	342,1	375,8	435,2	494,7	542,4	605,4	647,1	708,4	746,2	808,9	878,9	918,2	957,4
Input power	kW	74,1	85,1	96,8	107,7	123,7	143,8	157,0	176,7	201,6	222,1	247,8	260,7	282,3	303,4	320,4	347,3	374,2
Cooling total input current	A	126,0	144,0	162,0	181,0	206,0	238,0	260,0	294,0	336,0	372,0	415,0	436,0	470,0	506,0	536,0	581,0	626,0
EER	W/W	2,96	2,83	2,72	2,86	2,76	2,61	2,77	2,80	2,69	2,73	2,61	2,72	2,64	2,67	2,74	2,64	2,56
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187	121705	128201	138974	151002	157752	164500
Pressure drop system side	kPa	44	53	56	81	89	107	57	74	84	88	100	68	76	84	98	107	117

Cooling performances with free-cooling (2)

Cooling capacity	kW	175,0	179,4	182,7	236,7	242,4	246,2	304,0	360,9	367,2	425,1	429,9	487,9	491,9	550,3	609,1	613,5	617,1
Input power	kW	8,0	8,0	8,0	10,7	10,7	10,7	13,3	16,0	16,0	18,6	18,6	21,3	21,3	24,0	26,6	26,6	26,6
Free cooling total input current	A	14,0	13,0	13,0	18,0	18,0	18,0	22,0	27,0	27,0	31,0	31,0	36,0	35,0	40,0	45,0	45,0	45,0
EER	W/W	21,90	22,45	22,86	22,22	22,76	23,11	22,83	22,58	22,98	22,80	23,06	22,90	23,09	22,96	22,87	23,04	23,17
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187	121705	128201	138974	151002	157752	164500
Pressure drop system side	kPa	66	79	87	118	134	162	94	113	130	137	156	108	120	130	147	160	174

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	227,3	250,9	275,8	320,4	357,9	396,3	455,4	515,9	569,2	633,7	680,9	742,0	785,1	849,2	919,7	965,1	1010,6
Input power	kW	73,7	83,6	94,1	106,4	120,6	138,5	153,5	173,2	195,2	215,9	238,4	253,0	272,3	293,7	311,5	334,6	357,7
Cooling total input current	A	133,0	149,0	166,0	189,0	212,0	240,0	267,0	304,0	341,0	379,0	418,0	444,0	474,0	513,0	547,0	587,0	626,0
EER	W/W	3,08	3,00	2,93	3,01	2,97	2,86	2,97	2,98	2,92	2,94	2,86	2,93	2,88	2,89	2,95	2,88	2,83
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	47	57	61	88	97	120	62	81	92	96	111	75	84	92	108	118	130
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	192,7	198,6	203,6	261,5	269,7	276,0	338,6	400,3	410,2	473,3	481,2	544,1	551,0	614,6	678,8	686,3	692,8
Input power	kW	11,2	11,2	11,2	15,0	15,0	15,0	18,7	22,5	22,5	26,2	26,2	30,0	30,0	33,7	37,5	37,5	37,5
Free cooling total input current	A	20,0	20,0	20,0	27,0	26,0	26,0	33,0	39,0	39,0	46,0	46,0	53,0	52,0	59,0	66,0	66,0	66,0
EER	W/W	17,13	17,66	18,11	17,44	17,99	18,41	18,07	17,80	18,24	18,04	18,34	18,14	18,37	18,22	18,11	18,31	18,48
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	71	86	95	128	147	179	103	122	143	150	173	119	133	143	161	177	194

Model: P**Cooling performance chiller operation (1)**

Cooling capacity	kW	226,2	249,6	274,2	318,8	356,0	393,8	452,9	513,3	565,9	630,2	676,8	737,9	780,4	844,3	914,6	959,5	1004,3
Input power	kW	74,4	84,4	95,0	107,4	121,8	139,9	154,8	174,8	197,2	218,0	240,9	255,4	275,0	296,5	314,5	338,0	361,5
Cooling total input current	A	134,0	150,0	167,0	190,0	213,0	242,0	269,0	306,0	344,0	382,0	421,0	447,0	478,0	517,0	551,0	591,0	631,0
EER	W/W	3,04	2,96	2,89	2,97	2,92	2,82	2,93	2,94	2,87	2,89	2,81	2,89	2,84	2,85	2,91	2,84	2,78
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	46	57	60	87	96	118	62	80	91	95	110	74	83	91	106	117	128
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	205,9	212,7	218,2	279,8	289,0	295,9	362,9	428,9	439,8	507,3	515,9	583,3	590,7	658,8	727,6	735,7	742,7
Input power	kW	11,4	11,4	11,4	15,2	15,2	15,2	19,0	22,8	22,8	26,7	26,7	30,5	30,5	34,3	38,1	38,1	38,1
Free cooling total input current	A	21,0	20,0	20,0	27,0	27,0	26,0	33,0	40,0	40,0	47,0	47,0	53,0	53,0	60,0	67,0	67,0	66,0
EER	W/W	18,02	18,62	19,10	18,37	18,97	19,42	19,06	18,77	19,25	19,03	19,35	19,14	19,39	19,22	19,10	19,32	19,50
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	70	85	94	126	145	177	102	121	141	148	171	118	131	141	159	175	191

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	228,3	252,4	278,0	320,3	358,3	397,2	454,4	510,9	563,3	628,5	675,3	728,3	769,3	837,1	899,9	942,6	985,4
Input power	kW	72,5	82,2	92,3	104,6	118,7	136,3	151,0	171,5	194,0	213,5	236,4	253,2	273,3	292,4	312,3	337,1	361,8
Cooling total input current	A	124,0	140,0	156,0	177,0	199,0	227,0	251,0	287,0	325,0	360,0	399,0	425,0	457,0	490,0	525,0	567,0	608,0
EER	W/W	3,15	3,07	3,01	3,06	3,02	2,91	3,01	2,98	2,90	2,94	2,86	2,88	2,82	2,86	2,88	2,80	2,72
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	50	61	66	88	98	120	63	79	90	94	109	72	80	90	103	113	123
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	263,0	209,6	216,0	263,3	272,4	279,7	331,7	383,3	392,7	446,3	453,4	505,5	511,3	565,7	619,3	625,2	630,3
Input power	kW	10,5	10,5	10,5	13,1	13,1	13,1	15,8	18,4	18,4	21,0	21,0	23,6	23,6	26,3	28,9	28,9	28,9
Free cooling total input current	A	18,0	18,0	18,0	22,0	22,0	22,0	26,0	31,0	31,0	35,0	35,0	40,0	39,0	44,0	49,0	49,0	49,0
EER	W/W	25,04	19,96	20,57	20,06	20,75	21,30	21,06	20,85	21,37	21,25	21,59	21,39	21,64	21,55	21,44	21,65	21,83
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	71	86	96	121	139	171	95	115	133	143	164	110	122	134	151	165	180
Model: P																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	227,4	251,4	276,7	318,8	356,3	394,6	451,9	508,1	559,8	624,6	670,7	723,5	763,9	831,4	894,1	935,9	977,8
Input power	kW	73,1	82,8	93,1	105,5	119,8	137,7	152,4	173,0	195,9	215,7	239,0	255,8	276,2	295,5	315,6	340,8	366,1
Cooling total input current	A	125,0	141,0	157,0	178,0	201,0	229,0	253,0	289,0	328,0	362,0	402,0	429,0	461,0	494,0	529,0	572,0	614,0
EER	W/W	3,11	3,03	2,97	3,02	2,98	2,87	2,97	2,94	2,86	2,90	2,81	2,83	2,77	2,81	2,83	2,75	2,67
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	50	60	65	87	97	119	62	78	89	93	108	71	79	88	102	111	122
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	213,1	221,8	229,3	278,7	289,4	297,7	352,9	407,4	418,1	475,0	482,9	538,2	544,6	602,5	659,5	666,0	671,4
Input power	kW	10,7	10,7	10,7	13,3	13,3	13,3	16,0	18,6	18,6	21,3	21,3	24,0	24,0	26,6	29,3	29,3	29,3
Free cooling total input current	A	18,0	18,0	18,0	22,0	22,0	22,0	27,0	31,0	31,0	36,0	36,0	40,0	40,0	45,0	49,0	49,0	49,0
EER	W/W	20,00	20,82	21,53	20,93	21,73	22,36	22,08	21,85	22,43	22,30	22,66	22,46	22,72	22,62	22,51	22,73	22,92
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	70	86	96	120	138	169	94	114	132	141	162	108	121	132	149	163	177

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: F																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	6,24	5,77	6,03	6,11	5,82	5,27	6,09	5,55	5,79	5,55	5,70	5,89	5,66	5,52	5,75	5,56	5,56
	E	W/W	6,98	6,31	6,11	6,34	6,16	5,51	6,28	6,19	5,81	5,90	5,73	5,98	5,65	5,73	5,96	5,68	5,55
	N	W/W	7,33	7,13	6,84	6,84	6,70	6,12	6,70	6,57	6,21	6,29	6,07	6,24	5,89	6,03	6,11	5,88	5,75
	U	W/W	7,10	6,80	6,54	6,66	6,52	5,99	6,66	6,57	6,30	6,31	6,16	6,43	6,08	6,14	6,34	6,15	6,04
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																			
SEPR	A	W/W	6,24	5,77	6,03	6,11	5,82	5,27	6,09	5,55	5,79	5,55	5,70	5,89	5,66	5,52	5,75	5,56	5,56
	E	W/W	6,98	6,31	6,11	6,34	6,16	5,51	6,28	6,19	5,81	5,90	5,73	5,98	5,65	5,73	5,96	5,68	5,55
	N	W/W	7,33	7,13	6,84	6,84	6,70	6,12	6,70	6,57	6,21	6,29	6,07	6,24	5,89	6,03	6,11	5,88	5,75
	U	W/W	7,10	6,80	6,54	6,66	6,52	5,99	6,66	6,57	6,30	6,31	6,16	6,43	6,08	6,14	6,34	6,15	6,04
Model: P																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	6,09	5,62	5,91	5,97	5,68	5,13	5,95	5,51	5,65	5,51	5,57	5,75	5,52	5,54	5,62	5,53	5,50
	E	W/W	6,82	6,16	5,95	6,20	6,01	5,37	6,13	6,04	5,66	5,76	5,59	5,83	5,50	5,58	5,81	5,54	5,50
	N	W/W	7,22	6,98	6,71	6,69	6,54	5,98	6,55	6,42	6,07	6,14	5,92	6,09	5,75	5,89	5,98	5,74	5,66
	U	W/W	6,98	6,64	6,39	6,51	6,39	5,86	6,51	6,42	6,16	6,17	6,03	6,28	5,94	5,99	6,20	6,01	5,96
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																			
SEPR	A	W/W	6,09	5,62	5,91	5,97	5,68	5,13	5,95	5,51	5,65	5,51	5,57	5,75	5,52	5,54	5,62	5,53	5,50
	E	W/W	6,82	6,16	5,95	6,20	6,01	5,37	6,13	6,04	5,66	5,76	5,59	5,83	5,50	5,58	5,81	5,54	5,50
	N	W/W	7,22	6,98	6,71	6,69	6,54	5,98	6,55	6,42	6,07	6,14	5,92	6,09	5,75	5,89	5,98	5,74	5,66
	U	W/W	6,98	6,64	6,39	6,51	6,39	5,86	6,51	6,42	6,16	6,17	6,03	6,28	5,94	5,99	6,20	6,01	5,96

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	A	A	190,0	207,0	243,0	272,0	301,0	330,0	379,0	420,0	480,0	521,0	587,0	639,0	672,0	713,0	773,0	814,0	855,0
	E,U	A	210,0	226,0	243,0	291,0	321,0	350,0	398,0	464,0	505,0	565,0	606,0	659,0	692,0	752,0	812,0	853,0	894,0
	N	A	229,0	246,0	262,0	311,0	340,0	369,0	423,0	484,0	525,0	585,0	626,0	678,0	711,0	771,0	832,0	872,0	913,0
Peak current (LRA)	A	A	379,0	434,0	470,0	523,0	552,0	664,0	713,0	689,0	749,0	790,0	856,0	909,0	941,0	982,0	1043,0	1084,0	1124,0
	E,U	A	398,0	454,0	470,0	542,0	571,0	684,0	732,0	734,0	774,0	835,0	876,0	928,0	961,0	1021,0	1081,0	1122,0	1163,0
	N	A	418,0	473,0	489,0	561,0	591,0	703,0	758,0	753,0	794,0	854,0	895,0	947,0	980,0	1041,0	1101,0	1142,0	1183,0

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Compressor																			
Type	A,E,N,U	type	Scroll																
Compressor regulation	A,E,N,U	Type	On-Off																
Number	A,E,N,U	no.	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R410A																
Refrigerant charge	A	kg	32,0	32,0	48,0	48,0	48,0	48,0	64,0	64,0	80,0	80,0	96,0	112,0	112,0	112,0	128,0	128,0	128,0
	E,U	kg	48,0	48,0	48,0	64,0	64,0	64,0	80,0	96,0	96,0	112,0	112,0	128,0	128,0	144,0	160,0	160,0	160,0
	N	kg	64,0	64,0	64,0	80,0	80,0	80,0	96,0	112,0	112,0	128,0	128,0	144,0	144,0	160,0	176,0	176,0	176,0
System side heat exchanger																			
Type	A,E,N,U	type	Braze plate																
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections																			
Connections (in/out)	A,E,N,U	Type	Grooved joints																
Sizes (in/out)	A	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"
	E,N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"	5"

SOUND DATA

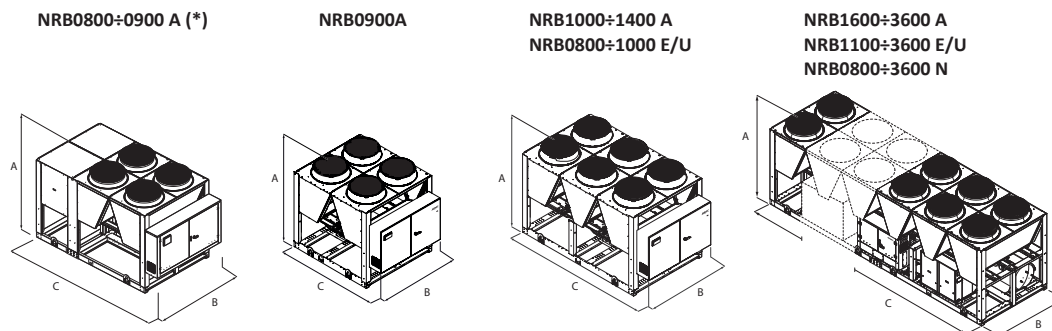
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Sound data calculated in cooling mode (1)																			
Sound power level	A	dB(A)	88,0	88,0	90,0	90,0	90,0	92,0	92,0	94,0	94,0	96,0	97,0	97,0	97,0	97,0	97,0	97,0	97,0
	E	dB(A)	85,0	85,0	85,0	87,0	87,0	87,0	88,0	89,0	90,0	91,0	91,0	92,0	92,0	93,0	93,0	93,0	93,0
	N	dB(A)	87,0	87,0	87,0	88,0	88,0	88,0	89,0	90,0	90,0	92,0	92,0	93,0	93,0	93,0	94,0	94,0	94,0
	U	dB(A)	90,0	90,0	90,0	92,0	92,0	92,0	93,0	94,0	95,0	96,0	97,0	97,0	97,0	98,0	99,0	99,0	99,0
Sound pressure level (10 m)	A	dB(A)	55,9	56,0	58,0	57,9	57,9	57,9	59,3	59,8	61,4	61,9	63,2	63,9	63,9	63,9	64,5	64,5	64,5
	E	dB(A)	52,9	53,0	52,8	54,3	54,3	54,3	55,3	56,8	57,2	58,5	58,9	59,4	59,4	60,1	60,5	60,5	60,5
	N	dB(A)	54,4	54,5	54,4	55,4	55,4	55,4	56,3	57,6	58,0	59,2	59,6	60,1	60,1	60,6	61,0	61,0	61,0
	U	dB(A)	58,0	58,1	58,0	59,4	59,4	59,4	60,5	62,0	62,4	63,7	64,0	64,6	64,6	65,3	65,7	65,7	65,7

(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).

FANS DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: F																			
Fan																			
Type	A,E,N,U	type	axials																
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	A	m ³ /h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400
	E	m ³ /h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000
	N	m ³ /h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
	U	m ³ /h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Model: P																			
Fan																			
Type	A,E,N,U	type	axials																
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	A	m ³ /h	54800	54800	82200	82200	82200	82200	109600	109600	137000	137000	164400	191800	191800	191800	219200	219200	230400
	E	m ³ /h	61800	61800	61800	82400	82400	82400	103000	123600	123600	144200	144200	164800	164800	185400	206000	206000	216000
	N	m ³ /h	82400	82400	82400	103000	103000	103000	123600	144200	144200	164800	164800	185400	185400	206000	226600	226600	237600
	U	m ³ /h	82200	82200	82200	109600	109600	109600	137000	164400	164400	191800	191800	219200	219200	246600	274000	274000	288000

DIMENSIONS



Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights																			
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780	2780	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
Empty weight	A	kg	3220	3270	3340	3770	3840	3870	4290	4840	4970	5600	5680	6310	6560	7010	7540	7620	7700
	E	kg	3330	3370	3450	3890	3960	3980	4420	4970	5110	5780	5860	6520	6770	7240	7770	7850	7930
	N	kg	3360	3400	3480	3910	3990	4010	4450	5000	5140	5800	5880	6550	6790	7270	7800	7880	7960
	U	kg	3350	3400	3470	3910	3980	4000	4450	4990	5140	5800	5880	6540	6790	7270	7800	7880	7960

■ Units 0800A and 0900A with the optional "storage tank" are 3970 mm long.

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.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NRB 0800-3600 B

Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 211 ÷ 1010 kW

- Microchannel coil
- Night mode
- Operation up to 50 °C outdoor air
- High efficiency also at partial loads



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Outdoor units with scroll compressors, axial flow fans, micro-channel coil (source side), plate heat exchanger and thermostatic expansion valve (mechanical or electronic, depending on the model). The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ *If a higher output is needed in free cooling, there is also the "G" free cooling plus model with boosted water coil.*

Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

Electronic expansion valve

Electronic thermostatic as standard from size 1800÷3600.

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

Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

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.

- **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.

ACCESSORIES

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

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.

FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

FL: Flow switch.

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.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

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

GP_V: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1	A,E	*	*	*	*	*	*											
	N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E	*	*	*	*	*	*											
	N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FB1	A,E	*	*	*	*	*	*											
	N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL	A,E	*	*	*	*	*	*											
	N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E	*	*	*	*	*	*											
	N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	A,E	*	*	*	*	*	*											
	N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00, DA, DB, DC, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
A,E	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	-	-	-	-	-	-	-	-	-	-	-
N,U	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	GP2VN	GP2VN	GP3VNF	GP3VNF	GP3VNF	GP3VNF	-	-	-	-	-	-	-	-	-	-	-
E	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP4VN	-	-	-	-	-	-	-	-	-	-	-
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V
U	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V

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

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000
A	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	-	-	-
E	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	-	-	-
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1600	RIFNRB1800	RIFNRB2000
U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1600	RIFNRB1800	RIFNRB2000

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

Ver	2200	2400	2600	2800	3000	3200	3400	3600
N,U	RIFNRB2200	RIFNRB2400	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

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

CONFIGURATOR

Field	Description
1,2,3	NRB
4,5,6,7	Size 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600
8	Operating yield
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
Y	Low temperature mechanic thermostatic valve
Z	Low temperature electronic thermostatic valve
9	Model
B	Free-cooling glycol free
G	Free-cooling glycol free plus (1)
10	Heat recovery
°	Without heat recovery
D	With desuperheater (2)
11	Version
A	High efficiency
E	Silenced high efficiency
N	Silenced very high efficiency
U	Very high efficiency
12	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium
I	Copper-aluminium / Copper-aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
14	Power supply
°	400V~3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit (3)
00	Without hydronic kit
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump

(1) The Free cooling Plus "G" models are only compatible with "°" and "O" coils.

(2) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(3) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NRB - A

[illegible]

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C ; glycol hydraulic circuit 30% ; primary hydraulic circuit glycol 0%.

NRB - E

[illegible]

(2) System side water heat exchanger 12 °C / 8.7 °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: B**Cooling performance chiller operation (1)**

Cooling capacity	kW	227,3	250,9	275,8	320,4	357,9	396,3	455,4	515,9	569,2	633,7	680,9	742,0	785,1	849,2	919,7	965,1	1010,6
Input power	kW	73,7	83,6	94,1	106,4	120,6	138,5	153,5	173,2	195,2	215,9	238,4	253,0	272,3	293,7	311,5	334,6	357,7
Cooling total input current	A	133,0	149,0	166,0	189,0	212,0	240,0	267,0	304,0	341,0	379,0	418,0	444,0	474,0	513,0	547,0	587,0	626,0
EER	W/W	3,08	3,00	2,93	3,01	2,97	2,86	2,97	2,98	2,92	2,94	2,86	2,93	2,88	2,89	2,95	2,88	2,83
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	51	56	66	72	90	111	75	92	112	133	126	110	124	133	158	160	176

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	159,6	162,9	165,8	215,5	222,0	225,8	284,2	346,2	361,7	409,5	413,7	470,6	474,2	525,1	581,4	584,6	587,3
Input power	kW	14,3	24,3	14,3	19,1	19,1	19,1	24,1	31,6	32,0	36,8	36,8	41,1	41,1	45,0	52,6	52,6	52,6
Free cooling total input current	A	26,0	26,0	25,0	34,0	33,0	33,0	42,0	55,0	56,0	65,0	64,0	72,0	72,0	79,0	92,0	92,0	92,0
EER	W/W	11,14	11,37	11,57	11,31	11,62	11,82	11,80	10,97	11,29	11,14	11,26	11,45	11,54	11,66	11,06	11,12	11,17

Model: G**Cooling performance chiller operation (1)**

Cooling capacity	kW	226,2	249,6	274,2	318,8	356,0	393,8	452,9	513,3	565,9	630,2	676,8	737,9	780,4	844,3	914,6	959,5	1004,3
Input power	kW	74,4	84,4	95,0	107,4	121,8	139,9	154,8	174,8	197,2	218,0	240,9	255,4	275,0	296,5	314,5	338,0	361,5
Cooling total input current	A	134,0	150,0	167,0	190,0	213,0	242,0	269,0	306,0	344,0	382,0	421,0	447,0	478,0	517,0	551,0	591,0	631,0
EER	W/W	3,04	2,96	2,89	2,97	2,92	2,82	2,93	2,94	2,87	2,89	2,81	2,89	2,84	2,85	2,91	2,84	2,78
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	50	56	-	72	89	109	74	91	111	132	125	109	122	132	157	158	174

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	165,6	169,1	172,3	223,6	230,7	234,8	295,8	360,9	278,5	427,4	432,0	491,6	495,5	547,8	606,7	610,2	613,2
Input power	kW	14,5	14,5	14,5	19,3	19,3	19,3	24,4	31,9	32,4	37,2	37,2	41,6	41,6	45,6	53,2	53,2	53,2
Free cooling total input current	A	26,0	26,0	25,0	34,0	34,0	33,0	42,0	56,0	57,0	65,0	65,0	73,0	72,0	79,0	93,0	93,0	93,0
EER	W/W	11,42	11,66	11,88	11,59	11,93	12,14	12,13	11,31	11,68	11,50	11,62	11,82	11,92	12,02	11,41	11,48	11,53

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: B**Cooling performance chiller operation (1)**

Cooling capacity	kW	228,3	252,4	278,0	320,3	358,3	397,2	454,4	510,9	563,3	628,5	675,3	728,3	769,3	837,1	899,9	942,6	985,4
Input power	kW	72,5	82,2	92,3	104,6	118,7	136,3	151,0	171,5	194,0	213,5	236,4	253,2	273,3	292,4	312,3	337,1	361,8
Cooling total input current	A	124,0	140,0	156,0	177,0	199,0	227,0	251,0	287,0	325,0	360,0	399,0	425,0	457,0	490,0	525,0	567,0	608,0
EER	W/W	3,15	3,07	3,01	3,06	3,02	2,91	3,01	2,98	2,90	2,94	2,86	2,88	2,82	2,86	2,88	2,80	2,72
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	46	50	60	72	91	103	71	90	110	131	124	97	109	130	141	158	170

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	173,9	177,9	181,5	218,5	225,6	235,0	293,7	331,4	347,7	386,9	390,8	445,3	448,6	497,1	534,8	537,7	540,1
Input power	kW	14,5	14,5	14,5	18,1	18,2	18,2	24,8	28,3	28,9	31,6	31,6	34,9	34,9	41,3	44,0	44,0	44,0
Free cooling total input current	A	25,0	25,0	25,0	31,0	31,0	30,0	41,0	47,0	48,0	53,0	53,0	59,0	58,0	69,0	74,0	74,0	74,0
EER	W/W	11,95	12,23	12,48	12,07	12,41	12,90	11,84	11,73	12,04	12,24	12,37	12,75	12,85	12,02	12,15	12,21	12,27

Model: G**Cooling performance chiller operation (1)**

Cooling capacity	kW	227,4	251,4	276,7	318,8	356,3	394,6	451,9	508,1	559,8	624,6	670,7	723,5	763,9	831,4	894,1	935,9	977,8
Input power	kW	73,1	82,8	93,1	105,5	119,8	137,7	152,4	173,0	195,9	215,7	239,0	255,8	276,2	295,5	315,6	340,8	366,1
Cooling total input current	A	125,0	141,0	157,0	178,0	201,0	229,0	253,0	289,0	328,0	362,0	402,0	429,0	461,0	494,0	529,0	572,0	614,0
EER	W/W	3,11	3,03	2,97	3,02	2,98	2,87	2,97	2,94	2,86	2,90	2,81	2,83	2,77	2,81	2,83	2,75	2,67
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	46	50	59	72	90	101	71	89	108	130	123	96	108	128	139	156	167

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	180,0	184,4	188,2	226,3	233,9	244,1	305,6	344,3	362,0	402,3	406,6	463,5	467,1	517,6	556,4	559,5	562,1
Input power	kW	14,7	14,6	14,7	18,3	18,4	18,4	25,0	28,5	29,2	31,9	31,9	35,3	35,3	41,7	44,4	44,4	44,4
Free cooling total input current	A	25,0	25,0	25,0	31,0	31,0	31,0	42,0	48,0	49,0	54,0	54,0	59,0	59,0	70,0	75,0	75,0	75,0
EER	W/W	12,25	12,55	12,81	12,37	12,73	13,26	12,20	12,07	12,42	12,61	12,74	13,14	13,25	12,41	12,52	12,59	12,65

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

ENERGY DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: B																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	5,61	5,25	5,27	5,43	5,25	5,05	-	-	-	-	-	-	-	-	-	-	-
	E	W/W	6,07	5,58	5,44	5,59	5,50	5,13	-	-	-	-	-	-	-	-	-	-	-
	N	W/W	6,38	6,09	5,91	5,92	5,78	5,41	5,67	5,51	5,56	5,58	5,53	5,55	5,54	5,53	5,54	5,55	5,53
	U	W/W	6,22	5,87	5,69	5,84	5,71	5,56	5,73	5,52	5,60	5,58	5,53	5,58	5,56	5,55	5,53	5,56	5,56
Model: G																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	5,82	5,37	5,48	5,60	5,37	4,87	-	-	-	-	-	-	-	-	-	-	-
	E	W/W	6,42	5,83	5,62	5,85	5,69	5,10	-	-	-	-	-	-	-	-	-	-	-
	N,U	W/W	6,96	6,54	6,28	6,28	6,08	5,63	6,13	5,90	5,77	5,73	5,58	5,79	5,47	5,56	5,61	5,32	5,18

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	A	A	190,0	207,0	243,0	272,0	301,0	330,0	-	-	-	-	-	-	-	-	-	-	-
	E	A	210,0	226,0	243,0	291,0	321,0	350,0	-	-	-	-	-	-	-	-	-	-	-
	N	A	229,0	246,0	262,0	311,0	340,0	369,0	423,0	484,0	525,0	585,0	626,0	678,0	711,0	771,0	832,0	872,0	913,0
	U	A	210,0	226,0	243,0	291,0	321,0	350,0	398,0	464,0	505,0	565,0	606,0	659,0	692,0	752,0	812,0	853,0	894,0
Peak current (LRA)	A	A	379,0	434,0	470,0	523,0	552,0	664,0	-	-	-	-	-	-	-	-	-	-	-
	E	A	398,0	454,0	470,0	542,0	571,0	684,0	-	-	-	-	-	-	-	-	-	-	-
	N	A	418,0	473,0	489,0	561,0	591,0	703,0	758,0	753,0	794,0	854,0	895,0	947,0	980,0	1041,0	1101,0	1142,0	1183,0
	U	A	398,0	454,0	470,0	542,0	571,0	684,0	732,0	734,0	774,0	835,0	876,0	928,0	961,0	1021,0	1081,0	1122,0	1163,0

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Compressor																			
Type	A,E	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	-	-	-	-	-	-	-	-	-	-	-
	N,U	type	Scroll																
Compressor regulation	A,E	Type	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	-	-	-	-	-	-	-	-	-	-	-
	N,U	Type	On-Off																
Number	A,E	no.	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-
	N,U	no.	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6
Circuits	A,E	no.	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-
	N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type	R410A	R410A	R410A	R410A	R410A	R410A	-	-	-	-	-	-	-	-	-	-	-
	N,U	type	R410A																
Refrigerant charge	A	kg	32,0	32,0	48,0	48,0	48,0	48,0	-	-	-	-	-	-	-	-	-	-	-
	E	kg	48,0	48,0	48,0	64,0	64,0	64,0	-	-	-	-	-	-	-	-	-	-	-
	N	kg	64,0	64,0	64,0	80,0	80,0	80,0	96,0	112,0	112,0	128,0	128,0	144,0	144,0	160,0	176,0	176,0	176,0
	U	kg	48,0	48,0	48,0	64,0	64,0	64,0	80,0	96,0	96,0	112,0	112,0	128,0	128,0	144,0	160,0	160,0	160,0
System side heat exchanger																			
Type	A,E	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	-	-	-	-	-	-	-	-	-	-	-
	N,U	type	Brazed plate																
Number	A,E	no.	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
	N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections																			
Sizes (in/out)	A,E	Ø	3"	3"	3"	3"	3"	3"	-	-	-	-	-	-	-	-	-	-	-
	N,U	Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	5"	5"	5"	5"	5"	5"	5"	5"

SOUND DATA

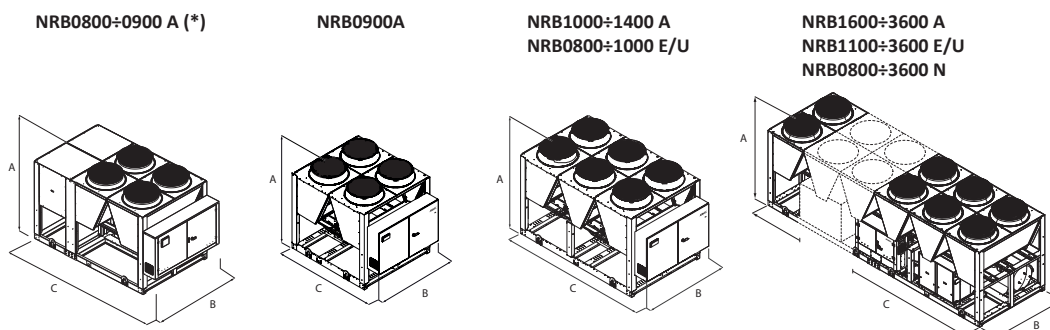
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Sound data calculated in cooling mode (1)																			
Sound power level	A	dB(A)	88,0	88,0	90,0	90,0	90,0	90,0	-	-	-	-	-	-	-	-	-	-	-
	E	dB(A)	85,0	85,0	85,0	87,0	87,0	87,0	-	-	-	-	-	-	-	-	-	-	-
	N	dB(A)	87,0	87,0	87,0	88,0	88,0	88,0	89,0	90,0	90,0	92,0	92,0	93,0	93,0	93,0	94,0	94,0	94,0
	U	dB(A)	90,0	90,0	90,0	92,0	92,0	92,0	93,0	94,0	95,0	96,0	97,0	97,0	97,0	98,0	99,0	99,0	99,0
Sound pressure level (10 m)	A	dB(A)	55,9	56,0	58,0	57,9	57,9	57,9	-	-	-	-	-	-	-	-	-	-	-
	E	dB(A)	52,9	53,0	52,8	54,3	54,3	54,3	-	-	-	-	-	-	-	-	-	-	-
	N	dB(A)	54,4	54,5	54,4	55,4	55,4	55,4	56,3	57,6	58,0	59,2	59,6	60,1	60,1	60,6	61,0	61,0	61,0
	U	dB(A)	58,0	58,1	58,0	59,4	59,4	59,4	60,5	62,0	62,4	63,7	64,0	64,6	64,6	65,3	65,7	65,7	65,7

(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).

FANS DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Model: B																			
Fan																			
Type	A,E	type	axials	axials	axials	axials	axials	axials	-	-	-	-	-	-	-	-	-	-	-
	N,U	type	axials																
Number	A	no.	4	4	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-
	E	no.	6	6	6	8	8	8	-	-	-	-	-	-	-	-	-	-	-
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
	U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	A	m³/h	57600	57600	86400	86400	86400	86400	-	-	-	-	-	-	-	-	-	-	-
	E	m³/h	64800	64800	64800	86400	86400	86400	-	-	-	-	-	-	-	-	-	-	-
	N	m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
	U	m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Model: G																			
Fan																			
Type	A,E	type	axials	axials	axials	axials	axials	axials	-	-	-	-	-	-	-	-	-	-	-
	N,U	type	axials																
Number	A	no.	4	4	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-
	E	no.	6	6	6	8	8	8	-	-	-	-	-	-	-	-	-	-	-
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
	U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	A	m³/h	54800	54800	82200	82200	82200	82200	-	-	-	-	-	-	-	-	-	-	-
	E	m³/h	61800	61800	61800	82400	82400	82400	-	-	-	-	-	-	-	-	-	-	-
	N	m³/h	82400	82400	82400	103000	103000	103000	123600	144200	144200	164800	164800	185400	185400	206000	226600	226600	237600
	U	m³/h	82200	82200	82200	109600	109600	109600	137000	164400	164400	191800	191800	219200	219200	246600	274000	274000	288000

DIMENSIONS



Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Dimensions and weights																			
A	A,E	mm	2450	2450	2450	2450	2450	2450	-	-	-	-	-	-	-	-	-	-	-
	N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	-	-	-	-	-	-	-	-	-	-	-
	N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780	2780	3970	3970	3970	3970	-	-	-	-	-	-	-	-	-	-	-
	E	mm	3970	3970	3970	4760	4760	4760	-	-	-	-	-	-	-	-	-	-	-
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
	U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
Empty weight	A	kg	3220	3270	3340	3770	3840	3870	-	-	-	-	-	-	-	-	-	-	-
	E	kg	3330	3370	3450	3890	3960	3980	-	-	-	-	-	-	-	-	-	-	-
	N	kg	3360	3400	3480	3910	3990	4010	4450	5000	5140	5800	5880	6550	6790	7270	7800	7880	7960
	U	kg	3350	3400	3470	3910	3980	4000	4450	4990	5140	5800	5880	6540	6790	7270	7800	7880	7960

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.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NRV 0550 F

Air-water chiller with free-cooling

Cooling capacity 99,9 ÷ 105,4 kW

- Easy and quick to install compact
- Reliability and modularity
- Microchannel coils



DESCRIPTION

NRV is comprised of independent 99.9 kW modules, that can be connected together up to a power of 900 kW. Each individual module is an outdoor chiller for the production of chilled water. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A High efficiency
- E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to 4 °C.

Maximum yield at full load but even partial load, thanks to the partialisation steps that increase as the number of connected modules increases this ensures continuous adaptation to the actual system requirements.

Modularity

It is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum.

The combination of the various chillers allows all the strengths of the individual module to be maintained.

Modularity allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.

Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.

Microchannel coils

Microchannel heat exchanger that guarantees higher thermal exchange yield. Circuit that optimises the liquid distribution in the coil, which is arranged with V beam geometry with open angle.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Components

Already equipped with a water filter, differential pressure switch and butterfly check valves, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.

In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.

CONTROL PCO₅

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

Adjustment includes complete management of the alarms and their log.

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.

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.

ACCESSORIES

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

FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

GPNYB_BACK: kit with 1 anti-intrusion grid for the short side of the unit.

GPNYB_SIDE: kit with 2 anti-intrusion grids for the long side of the unit.

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.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

ACCESSORIES COMPATIBILITY

Model	Ver	0550
AER485P1	A,E	*
FB1	A,E	*
GPNYB_BACK	A,E	*
GPNYB_SIDE	A,E	*
MULTICHILLER_EVO	A,E	*
PGD1	A,E	*

DRE: electronic device for peak current reduction

Ver	0550
A,E	DRE (1)

(1) Contact the factory

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

KNYB: Pair of caps with grooved joints assembled on the unit manifold

Ver	0550
A,E	KNYB

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

KREC: kit to remote the electric power supply input to the back

Ver	0550
A,E	KREC

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

RIF: Power factor correction

Ver	0550
A,E	RIF (1)

(1) Contact the factory

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

CONFIGURATOR

Field	Description
1,2,3	NRV
4,5,6,7	Size 0550
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve
9	Model
F	Free-cooling
10	Heat recovery
°	Without heat recovery
D	With desuperheater
11	Version
A	High efficiency
E	Silenced high efficiency

KNYB: Pair of caps with grooved joints assembled on the unit manifold.

KREC: Accessory kit to remote the electric power supply input to the back

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

COMPATIBILITY WITH VMF SYSTEM

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

Field	Description
12	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
14	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
15,16	Integrated hydronic kit
00	Without hydronic kit

(1) Water produced up to +4 °C

PERFORMANCE SPECIFICATIONS

NRV - FA/FE

Size			0550
Cooling performance chiller operation (1)			
Cooling capacity	A	kW	105,4
	E	kW	99,9
Input power	A	kW	36,6
	E	kW	38,2
Cooling total input current	A,E	A	65,0
EER	A	W/W	2,88
	E	W/W	2,61
Water flow rate system side	A	l/h	18104
	E	l/h	17164
Pressure drop system side	A	kPa	31
	E	kPa	27
Cooling performances with free-cooling (2)			
Cooling capacity	A	kW	69,3
	E	kW	57,7
Input power	A	kW	3,7
	E	kW	2,6
Free cooling total input current	A	A	6,7
	E	A	4,5
EER	A	W/W	18,48
	E	W/W	21,98
Water flow rate system side	A	l/h	18104
	E	l/h	17164
Pressure drop system side	A	kPa	73
	E	kPa	66

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0550
SEPR - (EN14825: 2018) High temperature with standard fans (1)			
SEPR	A	W/W	5,94
	E	W/W	5,60
SEPR - (EN14825: 2018) High temperature with inverter fans (1)			
SEPR	A	W/W	5,94
	E	W/W	5,60

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

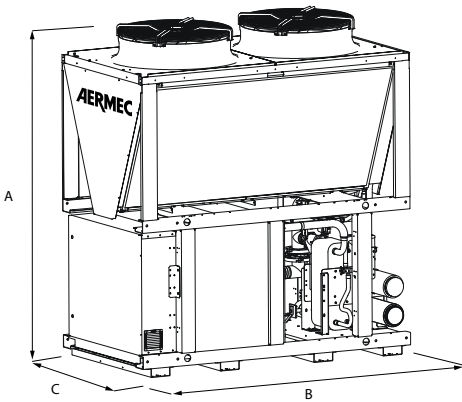
Size			0550
Electric data			
Maximum current (FLA)	A,E	A	95,6
Peak current (LRA)	A,E	A	280,6

GENERAL TECHNICAL DATA

Size			0550
Compressor			
Type	A,E	type	Scroll
Number	A,E	no.	2
Circuits	A,E	no.	1
Refrigerant	A,E	type	R410A
System side heat exchanger			
Type	A,E	type	Brazed plate
Number	A,E	no.	1
System side hydraulic connections			
Connections (in/out)	A,E	Type	Grooved joints
Sizes (in/out)	A,E	Ø	6"
Fan			
Type	A,E	type	axials
Fan motor	A,E	type	Asynchronous with phase cut
Number	A,E	no.	2
Air flow rate	A	m³/h	28600
	E	m³/h	22000
Sound data calculated in cooling mode (1)			
Sound power level	A	dB(A)	86,9
	E	dB(A)	81,8
Sound pressure level (10 m)	A	dB(A)	55,0
	E	dB(A)	49,9

(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			0550
Dimensions and weights			
A	A,E	mm	2480
B	A,E	mm	2200
C	A,E	mm	1190
Empty weight	A,E	kg	1389

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.

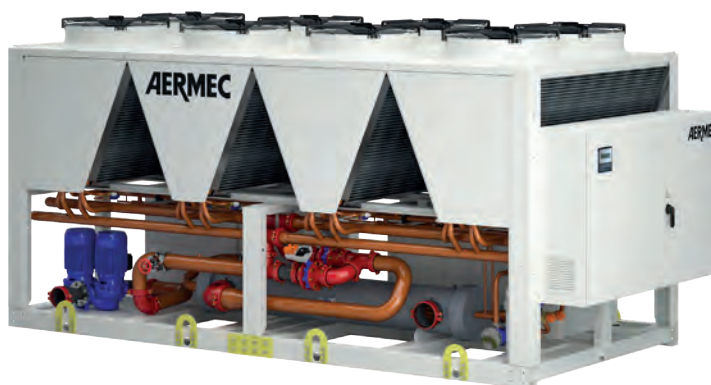
Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NSM 1402-9603 F

Air-water chiller with free-cooling

Cooling capacity 306 ÷ 2028 kW

- Microchannel coil
- Night mode
- Operation up to 50 °C outdoor air
- High efficiency also at partial loads



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers

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

VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Electronic expansion valve

Electronic thermostatic as standard from size 5202 to 6402 and from 8403 to 9603.

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

Integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

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.
- **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.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MOD-BUS protocol.

AER485P1 x n° 3: RS-485 interface for supervision systems with MOD-BUS protocol.

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.

PRV3: Allows you to control the chiller at a distance.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

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

GP_V: Anti-intrusion grid kit

KRS: Electric heater for the plate heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
AER485P1 x n° 2 (1)	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Model	Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1 x n° 2 (1)	A,E,N,U	*	*	*	*	*	*	*						
AER485P1 x n° 3 (1)	A,E,N,U								*	*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) x Indicates the quantity of accessories to match.

Antivibration - NSM free - cooling

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Integrated hydronic kit: 00														
A	AVX929	AVX929	AVX929	AVX932	AVX933	AVX933	AVX933	AVX934	AVX937	AVX937	AVX937	AVX938	AVX938	AVX942
E,U	AVX929	AVX929	AVX930	AVX933	AVX933	AVX934	AVX934	AVX935	AVX935	AVX935	AVX935	AVX939	AVX939	AVX940
N	AVX930	AVX930	AVX931	AVX931	AVX934	AVX935	AVX935	AVX936	AVX936	AVX936	AVX936	AVX940	AVX941	AVX943

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
-----	------	------	------	------	------	------	------	------	------	------	------	------	------

Integrated hydronic kit: 00													
A	AVX942	AVX944	AVX944	AVX944	AVX945	AVX947	AVX947	AVX953	AVX953	AVX957	AVX954	AVX956	AVX955
E,U	AVX941	AVX945	AVX947	AVX947	AVX950	AVX952	AVX948	AVX954	AVX956	AVX956	AVX958	-	-
N	AVX943	AVX946	AVX948	AVX949	AVX951	AVX951	AVX951	AVX955	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Anti-intrusion grid

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	GP4V	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V
E,U	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V	GP8V	GP8V	GP9V
N	GP5V	GP5V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP8V	GP8V	GP9V	GP10V	GP11V

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

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	GP8V	GP9V	GP9V	GP9V	-	GP11V	GP11V	GP4V+GP8V	GP4V+GP8V	GP9V	GP5V+GP9V	GP5V+GP10V	GP6V+GP11V
E,U	GP10V	GP10V	GP11V	GP11V	GP6V+GP6V	GP6V+GP7V	GP7V+GP7V	GP5V+GP9V	GP5V+GP10V	GP5V+GP10V	GP6V+GP11V	-	-
N	GP11V	GP6V+GP7V	GP7V+GP7V	GP7V+GP8V	GP8V+GP8V	GP8V+GP8V	GP8V	GP6V+GP11V	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

Heater exchangers

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	KRS22	KRS22	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24
E,N,U	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24

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

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	KRS24	KRS24	KRS23	KRS23	KRS24	KRS24	KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24
E,U	KRS24	KRS24	KRS23	KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	-	-
N	KRS24	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
A	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352Q	RIFNSM2502Q	RIFNSM2652Q	RIFNSM2802C
E	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
N	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802C	RIFNSM2002Q	RIFNSM2202C	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
U	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002C	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C

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

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
A,E,U	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	RIFNSM4502C	RIFNSM4802C	RIFNSM5202C
N	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	RIFNSM5602C	RIFNSM6002C	RIFNSM6402C	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

CONFIGURATOR

Field	Description
1,2,3	NSM
4,5,6,7	Size 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603
8	Operating yield
	° Standard mechanic thermostatic valve (1)
	X Electronic thermostatic expansion valve (2)
	Y Low temperature mechanic thermostatic valve (3)
	Z Low temperature electronic thermostatic valve (3)
9	Model
	F Free-cooling
	P Free-cooling plus (4)
10	Heat recovery
	° Without heat recovery
	D With desuperheater
11	Version
	A High efficiency
	E Silenced high efficiency
	N Silenced very high efficiency
	U Very high efficiency
12	Coils / free-cooling coils
	° Alluminium microchannel / Copper - aluminium
	I Copper-aluminium / Copper-aluminium
	O Painted alluminium microchannel / Copper painted aluminium
	R Copper-copper/Copper-copper
	S Copper-Tinned copper / Copper -Tinned copper
	V Copper-painted aluminium / Copper-painted aluminium
13	Fans
	° Standard
	J Inverter
14	Power supply
	° 400V ~ 3 50Hz with fuses
	2 230V ~ 3 50Hz with fuses (5)
	4 230V ~ 3 50Hz with magnet circuit breakers (5)
	5 500V ~ 3 50Hz with fuses (6)

Field	Description
8	400V ~ 3 50Hz with magnet circuit breakers
9	500V ~ 3 50Hz with magnet circuit breakers (6)
15,16	Integrated hydronic kit
00	Without hydronic kit
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J (7)
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump (7)
TF	Double pump F (8)
TG	Double pump G (8)
TH	Double pump H (8)
TI	Double pump I (8)
TJ	Double pump J (8)

(1) Water produced from 4 °C ÷ 15 °C

(2) Water produced from 4 °C ÷ 18 °C

(3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions

(4) The Free-Cooling Plus "P" models are only compatible with "mod" ed "O"

(5) available only for size from 1402 to 2202

(6) available only for size from 1402 to 3202

(7) For all configurations including pump J please contact the factory.

(8) The unit from 5603 to 9603 can only have hydronic kit "TF - TG - TH - TI - TJ"

PERFORMANCE SPECIFICATIONS

NSM - A

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F

Cooling performance chiller operation (1)

Cooling capacity	kW	306,5	350,2	396,8	450,5	505,3	522,5	556,5	600,8	649,8	678,4	726,3	813,3	872,8	954,1
Input power	kW	102,8	117,6	136,7	158,3	168,9	180,5	194,5	203,0	220,4	235,0	252,8	269,7	295,6	317,9
Cooling total input current	A	182,3	206,2	230,6	268,0	291,3	311,4	335,2	351,3	378,4	400,0	426,5	450,9	486,5	530,4
EER	W/W	2,98	2,98	2,90	2,85	2,99	2,90	2,86	2,96	2,95	2,89	2,87	3,02	2,95	3,00
Water flow rate system side	l/h	52654	60163	68174	77407	86812	89765	95621	103224	111642	116561	124785	139737	149958	163932
Pressure drop system side	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61

Cooling performances with free-cooling (2)

Cooling capacity	kW	347,7	362,0	373,1	381,9	468,1	471,2	476,5	560,7	569,1	573,2	578,8	671,5	677,9	770,2
Input power	kW	15,0	15,0	15,0	15,0	18,7	18,7	18,7	22,5	22,5	22,5	22,5	26,2	26,2	30,0
Free cooling total input current	A	30,4	30,4	30,4	30,4	38,0	38,0	38,0	45,6	45,6	45,6	45,6	53,2	53,2	60,8
EER	W/W	23,18	24,14	24,88	25,47	24,97	25,14	25,42	24,93	25,30	25,48	25,73	25,59	25,83	25,68
Water flow rate system side	l/h	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110	171460
Pressure drop system side	kPa	66	86	85	76	78	84	95	98	107	116	113	87	99	107

Model: P

Cooling performance chiller operation (1)

Cooling capacity	kW	305,8	349,3	395,0	447,3	502,1	519,1	552,6	597,2	645,4	674,3	721,9	807,8	865,0	946,8
Input power	kW	103,7	118,8	138,1	160,2	170,8	182,6	197,0	205,3	223,1	238,4	257,1	273,3	299,3	321,8
Cooling total input current	A	182,3	206,2	230,6	268,0	291,3	311,4	335,2	351,3	378,4	400,0	426,5	450,9	486,5	530,4
EER	W/W	2,95	2,94	2,86	2,79	2,94	2,84	2,81	2,91	2,89	2,83	2,81	2,96	2,89	2,94
Water flow rate system side	l/h	52546	60019	67864	76853	86266	89180	94948	102598	110891	115859	124023	138789	148609	162675
Pressure drop system side	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61

Cooling performances with free-cooling (2)

Cooling capacity	kW	371,8	388,1	400,1	409,1	501,9	505,2	510,5	601,2	610,0	614,2	619,7	719,2	725,2	824,6
Input power	kW	15,2	15,2	15,2	15,2	19,0	19,0	19,0	22,9	22,9	22,9	22,9	26,7	26,7	30,5
Free cooling total input current	A	30,7	30,7	30,7	30,7	38,4	38,4	38,4	46,1	46,1	46,1	46,1	53,7	53,7	61,4
EER	W/W	24,41	25,48	26,27	26,86	26,36	26,53	26,81	26,31	26,69	26,88	27,12	26,98	27,20	27,07
Water flow rate system side	l/h	52710	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110
Pressure drop system side	kPa	66	86	86	76	79	84	95	98	107	117	114	87	100	108

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

NSM - A

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F

Cooling performance chiller operation (1)

Cooling capacity	kW	996,8	1082,3	1128,3	1167,3	1222,8	1304,9	1346,7	1459,2	1501,9	1659,0	1705,0	1838,1	2028,1
Input power	kW	346,1	365,7	391,9	422,5	438,9	452,7	472,4	492,1	520,2	557,2	583,3	659,0	704,1
Cooling total input current	A	581,4	614,0	654,6	703,8	733,3	761,1	795,9	821,1	872,1	945,1	985,8	1100,0	1197,7
EER	W/W	2,88	2,96	2,88	2,76	2,79	2,88	2,85	2,97	2,89	2,98	2,92	2,79	2,88
Water flow rate system side	l/h	171269	185947	193855	200561	210092	224201	231379	250713	258050	285029	292937	315803	348457
Pressure drop system side	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102

Cooling performances with free-cooling (2)

Cooling capacity	kW	774,7	867,5	872,2	875,9	966,0	1058,3	1062,8	1158,4	1162,7	1346,7	1351,7	1449,5	1636,8
Input power	kW	30,0	33,7	33,7	33,7	37,5	41,2	41,2	45,0	45,0	52,5	52,5	56,2	63,7
Free cooling total input current	A	60,8	68,4	68,4	68,4	76,0	83,6	83,6	91,2	91,2	106,4	106,4	114,0	129,2
EER	W/W	25,83	25,71	25,85	25,96	25,77	25,66	25,77	25,75	25,85	25,66	25,75	25,78	25,68
Water flow rate system side	l/h	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840	348457
Pressure drop system side	kPa	117	130	141	131	134	145	154	107	117	130	141	134	154

Model: P

Cooling performance chiller operation (1)

Cooling capacity	kW	988,7	1074,2	1119,1	1156,4	1212,7	1295,2	1336,2	1447,7	1489,6	1646,9	1691,9	1822,8	2013,1
Input power	kW	350,6	370,3	397,1	428,3	444,3	458,0	478,2	498,2	527,1	564,0	590,8	667,0	712,4
Cooling total input current	A	581,4	614,0	654,6	703,8	733,3	761,1	795,9	821,1	872,1	945,1	985,8	1100,0	1197,7
EER	W/W	2,82	2,90	2,82	2,70	2,73	2,83	2,79	2,91	2,83	2,92	2,86	2,73	2,83
Water flow rate system side	l/h	169873	184553	192278	198678	208362	222522	229577	248739	255936	282961	290686	313186	345875
Pressure drop system side	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102

Cooling performances with free-cooling (2)

Cooling capacity	kW	828,9	928,7	933,1	936,5	1033,8	1133,1	1137,4	1239,8	1243,9	1442,0	1446,8	1551,1	1752,4
Input power	kW	30,5	34,3	34,3	34,3	38,1	41,9	41,9	45,7	45,7	53,3	53,3	57,1	64,7
Free cooling total input current	A	61,4	69,1	69,1	69,1	76,8	84,5	84,5	92,1	92,1	107,5	107,5	115,2	130,5
EER	W/W	27,21	27,09	27,22	27,32	27,15	27,05	27,15	27,13	27,22	27,04	27,13	27,15	27,07
Water flow rate system side	l/h	171460	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840
Pressure drop system side	kPa	117	130	141	131	134	146	155	108	117	130	141	134	155

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

NSM - E

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F**Cooling performance chiller operation (1)**

Cooling capacity	kW	319,8	365,8	417,7	473,0	509,1	549,8	568,8	618,6	646,3	675,1	715,5	796,7	851,7	929,6
Input power	kW	105,5	123,3	137,5	159,4	178,3	183,3	195,5	205,2	220,4	235,9	253,5	270,8	297,1	320,1
Cooling total input current	A	177,3	205,7	223,1	261,0	294,5	304,8	325,9	341,6	365,4	388,5	414,7	437,5	474,1	516,8
EER	W/W	3,03	2,97	3,04	2,97	2,85	3,00	2,91	3,01	2,93	2,86	2,82	2,94	2,87	2,90
Water flow rate system side	l/h	54946	62848	71763	81260	87462	94455	97732	106280	111041	115993	122937	136886	146332	159723
Pressure drop system side	kPa	33	37	32	37	43	50	54	53	58	64	64	43	49	60

Cooling performances with free-cooling (2)

Cooling capacity	kW	308,8	317,5	389,9	399,1	403,2	476,4	479,1	552,1	556,5	560,4	564,7	643,3	648,3	727,0
Input power	kW	11,0	11,0	13,7	13,7	13,7	16,5	16,5	19,2	19,2	19,2	19,2	22,0	22,0	24,7
Free cooling total input current	A	15,9	15,9	19,9	19,9	19,9	23,9	23,9	27,9	27,9	27,9	27,9	31,8	31,8	35,8
EER	W/W	28,07	28,87	28,36	29,03	29,33	28,88	29,04	28,69	28,91	29,11	29,34	29,25	29,47	29,38
Water flow rate system side	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
Pressure drop system side	kPa	56	67	56	68	78	80	85	82	90	98	102	77	88	97

Model: P**Cooling performance chiller operation (1)**

Cooling capacity	kW	316,7	363,1	414,5	469,5	504,1	545,4	564,0	613,8	640,8	669,8	710,9	790,6	843,5	921,3
Input power	kW	106,6	124,7	138,6	161,1	181,0	185,4	197,8	207,6	223,1	239,2	257,8	274,6	301,1	324,4
Cooling total input current	A	177,3	205,7	223,1	261,0	294,5	304,8	325,9	341,6	365,4	388,5	414,7	437,5	474,1	516,8
EER	W/W	2,97	2,91	2,99	2,91	2,79	2,94	2,85	2,96	2,87	2,80	2,76	2,88	2,80	2,84
Water flow rate system side	l/h	54406	62391	71215	80666	86616	93710	96909	105464	110105	115087	122135	135840	144915	158291
Pressure drop system side	kPa	33	37	32	37	43	50	54	54	59	64	65	43	49	60

Cooling performances with free-cooling (2)

Cooling capacity	kW	328,8	338,7	415,7	425,8	429,8	508,2	511,0	589,0	593,7	597,7	602,1	686,0	690,6	774,8
Input power	kW	11,2	11,2	13,9	13,9	13,9	16,7	16,7	19,5	19,5	19,5	19,5	22,3	22,3	25,1
Free cooling total input current	A	16,1	16,1	20,1	20,1	20,1	24,1	24,1	28,1	28,1	28,1	28,1	32,2	32,2	36,2
EER	W/W	29,48	30,36	29,81	30,53	30,82	30,37	30,54	30,17	30,41	30,62	30,84	30,75	30,95	30,87
Water flow rate system side	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
Pressure drop system side	kPa	57	67	57	68	78	80	86	83	90	98	103	77	88	98

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C

NSM - E

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F**Cooling performance chiller operation (1)**

Cooling capacity	kW	995,2	1051,6	1137,0	1159,2	1217,3	1279,4	1341,6	1434,0	1499,6	1598,6	1684,0	-	-
Input power	kW	339,9	370,0	389,4	418,0	436,6	448,9	461,2	491,1	510,9	568,9	588,3	-	-
Cooling total input current	A	554,8	601,5	631,6	677,8	708,4	731,9	755,4	803,9	832,3	923,9	945,4	-	-
EER	W/W	2,93	2,84	2,92	2,77	2,79	2,85	2,91	2,92	2,93	2,81	2,86	-	-
Water flow rate system side	l/h	170980	180685	195353	199172	209139	219823	230507	246385	257643	274665	289333	-	-
Pressure drop system side	kPa	68	79	73	76	67	72	82	60	68	79	73	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	804,0	809,4	888,6	890,5	967,2	1043,7	1119,7	1129,8	1206,8	1215,8	1295,1	-	-
Input power	kW	27,5	27,5	30,2	30,2	33,0	35,7	38,5	38,5	41,2	41,2	44,0	-	-
Free cooling total input current	A	39,8	39,8	43,8	43,8	47,8	51,7	55,7	55,7	59,7	59,7	63,7	-	-
EER	W/W	29,24	29,44	29,38	29,44	29,31	29,20	29,09	29,35	29,26	29,48	29,44	-	-
Water flow rate system side	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650	-	-
Pressure drop system side	kPa	104	119	113	117	107	110	119	97	104	119	113	-	-

Model: P**Cooling performance chiller operation (1)**

Cooling capacity	kW	987,5	1041,9	1127,1	1148,0	1206,7	1269,3	1332,0	1421,7	1487,9	1583,2	1668,4	-	-
Input power	kW	344,2	375,3	394,8	424,0	442,2	454,4	466,6	497,6	517,4	577,4	596,8	-	-
Cooling total input current	A	554,8	601,5	631,6	677,8	708,4	731,9	755,4	803,9	832,3	923,9	945,4	-	-
EER	W/W	2,87	2,78	2,86	2,71	2,73	2,79	2,85	2,86	2,88	2,74	2,80	-	-
Water flow rate system side	l/h	169667	179011	193652	197235	207320	218083	228845	244269	255645	272005	286645	-	-
Pressure drop system side	kPa	69	80	74	76	68	72	82	60	69	80	74	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	857,5	862,4	947,1	948,8	1031,1	1113,1	1194,5	1204,3	1286,9	1295,0	1379,9	-	-
Input power	kW	27,9	27,9	30,7	30,7	33,5	36,3	39,0	39,0	41,8	41,8	44,6	-	-
Free cooling total input current	A	40,2	40,2	44,2	44,2	48,2	52,3	56,3	56,3	60,3	60,3	64,3	-	-
EER	W/W	30,74	30,92	30,87	30,92	30,81	30,70	30,59	30,84	30,76	30,95	30,92	-	-
Water flow rate system side	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650	-	-
Pressure drop system side	kPa	105	119	113	117	107	111	120	98	105	119	113	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C

NSM - U

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F**Cooling performance chiller operation (1)**

Cooling capacity	kW	328,1	378,5	429,3	491,9	531,3	568,6	589,0	638,0	667,8	695,1	735,8	824,8	891,0	967,9
Input power	kW	105,3	121,3	136,2	155,8	172,9	180,0	191,0	202,4	216,1	228,4	242,4	263,0	288,2	311,5
Cooling total input current	A	185,8	211,5	232,0	266,3	297,1	312,9	332,3	352,6	374,2	392,3	413,0	442,7	477,2	522,6
EER	W/W	3,12	3,12	3,15	3,16	3,07	3,16	3,08	3,15	3,09	3,04	3,04	3,14	3,09	3,11
Water flow rate system side	l/h	56372	65027	73755	84508	91287	97691	101204	109611	114731	119418	126414	141715	153088	166304
Pressure drop system side	kPa	35	39	34	40	46	53	57	57	62	68	68	46	53	65

Cooling performances with free-cooling (2)

Cooling capacity	kW	356,2	369,9	451,2	466,4	473,4	555,1	559,4	641,6	648,6	654,2	661,5	753,3	763,5	854,0
Input power	kW	15,0	15,0	18,7	18,7	18,7	22,5	22,5	26,2	26,2	26,2	26,2	30,0	30,0	33,7
Free cooling total input current	A	30,4	30,4	38,0	38,0	38,0	45,6	45,6	53,2	53,2	53,2	53,2	60,8	60,8	68,4
EER	W/W	23,76	24,67	24,07	24,88	25,26	24,68	24,87	24,45	24,71	24,93	25,21	25,12	25,46	25,31
Water flow rate system side	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
Pressure drop system side	kPa	59	71	60	73	85	85	92	88	96	104	108	82	96	105

Model: P**Cooling performance chiller operation (1)**

Cooling capacity	kW	326,9	376,7	427,6	488,8	527,6	565,4	585,6	634,6	664,0	691,7	732,5	820,3	884,7	961,8
Input power	kW	106,3	122,5	137,6	157,4	174,8	181,8	193,0	204,4	218,3	231,1	245,7	266,0	291,3	314,8
Cooling total input current	A	185,8	211,5	232,0	266,3	297,1	312,9	332,3	352,6	374,2	392,3	413,0	442,7	477,2	522,6
EER	W/W	3,08	3,07	3,11	3,10	3,02	3,11	3,03	3,10	3,04	2,99	2,98	3,08	3,04	3,06
Water flow rate system side	l/h	56168	64715	73458	83974	90642	97138	100613	109029	114089	118834	125850	140933	152002	165249
Pressure drop system side	kPa	35	40	34	40	47	54	58	57	63	68	69	46	54	65

Cooling performances with free-cooling (2)

Cooling capacity	kW	381,5	396,7	483,5	500,0	507,4	595,1	599,9	687,8	695,4	701,6	709,4	807,7	818,0	915,4
Input power	kW	15,2	15,2	19,0	19,0	19,0	22,9	22,9	26,7	26,7	26,7	26,7	30,5	30,5	34,3
Free cooling total input current	A	30,7	30,7	38,4	38,4	38,4	46,1	46,1	53,7	53,7	53,7	53,7	61,4	61,4	69,1
EER	W/W	25,04	26,04	25,39	26,26	26,65	26,05	26,25	25,80	26,09	26,32	26,61	26,51	26,85	26,71
Water flow rate system side	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
Pressure drop system side	kPa	60	72	60	74	85	86	92	88	96	104	109	83	96	106

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / ° °C; External air 2 °C

NSM - U

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F**Cooling performance chiller operation (1)**

Cooling capacity	kW	1031,1	1095,0	1181,2	1208,8	1265,8	1326,2	1386,6	1491,1	1554,3	1666,6	1752,7	-	-
Input power	kW	332,0	358,4	379,0	405,3	426,4	440,0	453,5	478,4	498,9	549,8	570,4	-	-
Cooling total input current	A	564,1	604,8	638,6	681,5	718,3	746,0	773,7	811,6	846,2	926,2	954,2	-	-
EER	W/W	3,11	3,06	3,12	2,98	2,97	3,01	3,06	3,12	3,12	3,03	3,07	-	-
Water flow rate system side	l/h	177155	188137	202935	207692	217477	227858	238239	256194	267046	286336	301135	-	-
Pressure drop system side	kPa	74	86	79	83	73	77	87	64	74	86	79	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	941,7	951,8	1043,5	1047,6	1134,8	1221,6	1307,8	1326,2	1413,8	1431,0	1522,9	-	-
Input power	kW	37,5	37,5	41,2	41,2	45,0	48,7	52,5	52,5	56,2	56,2	60,0	-	-
Free cooling total input current	A	76,0	76,0	83,6	83,6	91,2	98,8	106,4	106,4	114,0	114,0	121,6	-	-
EER	W/W	25,12	25,39	25,30	25,40	25,22	25,07	24,92	25,27	25,14	25,45	25,39	-	-
Water flow rate system side	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470	-	-
Pressure drop system side	kPa	112	129	122	127	115	119	128	105	112	129	122	-	-

Model: P**Cooling performance chiller operation (1)**

Cooling capacity	kW	1025,3	1088,1	1174,0	1200,9	1257,9	1318,5	1379,2	1482,0	1545,4	1655,7	1741,6	-	-
Input power	kW	335,5	362,4	383,1	409,7	430,7	444,3	457,9	483,4	504,1	556,1	576,8	-	-
Cooling total input current	A	564,1	604,8	638,6	681,5	718,3	746,0	773,7	811,6	846,2	926,2	954,2	-	-
EER	W/W	3,06	3,00	3,06	2,93	2,92	2,97	3,01	3,07	3,07	2,98	3,02	-	-
Water flow rate system side	l/h	176150	186945	201699	206322	216119	226541	236963	254617	265517	284475	299229	-	-
Pressure drop system side	kPa	74	86	79	83	73	78	88	65	74	86	80	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	1009,7	1020,0	1118,5	1122,6	1216,5	1309,9	1402,4	1421,6	1515,9	1533,4	1632,1	-	-
Input power	kW	38,1	38,1	41,9	41,9	45,7	49,5	53,3	53,3	57,1	57,1	60,9	-	-
Free cooling total input current	A	76,8	76,8	84,5	84,5	92,1	99,8	107,5	107,5	115,2	115,2	122,8	-	-
EER	W/W	26,51	26,78	26,70	26,80	26,62	26,46	26,30	26,66	26,54	26,84	26,78	-	-
Water flow rate system side	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470	-	-
Pressure drop system side	kPa	113	129	122	128	116	119	128	106	113	130	123	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / ° °C; External air 2 °C

NSM - N

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F**Cooling performance chiller operation (1)**

Cooling capacity	kW	326,0	376,5	424,5	486,3	525,3	559,6	579,7	626,1	655,1	682,6	723,4	811,7	888,8	960,7
Input power	kW	103,6	119,3	134,4	153,8	170,9	178,3	189,4	200,8	214,8	227,9	242,9	263,8	283,0	307,1
Cooling total input current	A	174,8	199,9	218,4	252,6	283,3	297,4	316,9	335,2	357,1	376,5	398,7	426,6	452,0	496,6
EER	W/W	3,15	3,16	3,16	3,16	3,07	3,14	3,06	3,12	3,05	3,00	2,98	3,08	3,14	3,13
Water flow rate system side	l/h	56017	64687	72926	83554	90260	96150	99597	107568	112546	117285	124287	139460	152703	165051
Pressure drop system side	kPa	34	39	33	39	45	52	55	55	60	65	66	44	53	64

Cooling performances with free-cooling (2)

Cooling capacity	kW	365,1	381,0	449,3	465,6	473,2	541,5	545,8	615,7	622,3	627,8	634,7	713,7	791,0	867,2
Input power	kW	13,7	13,7	16,5	16,5	16,5	19,2	19,2	22,0	22,0	22,0	22,0	24,7	27,5	30,2
Free cooling total input current	A	19,9	19,9	23,9	23,9	23,9	27,9	27,9	31,8	31,8	31,8	31,8	35,8	39,8	43,8
EER	W/W	26,56	27,71	27,24	28,22	28,69	28,13	28,36	27,99	28,29	28,54	28,86	28,84	28,77	28,67
Water flow rate system side	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Pressure drop system side	kPa	51	61	51	63	73	76	82	79	87	94	98	74	83	93

Model: P**Cooling performance chiller operation (1)**

Cooling capacity	kW	325,1	375,2	422,9	483,6	522,0	556,8	576,7	623,1	651,8	679,6	720,3	807,0	882,8	955,1
Input power	kW	104,5	120,4	135,6	155,5	172,9	180,2	191,5	202,9	217,2	230,8	246,4	267,1	286,2	310,3
Cooling total input current	A	174,8	199,9	218,4	252,6	283,3	297,4	316,9	335,2	357,1	376,5	398,7	426,6	452,0	496,6
EER	W/W	3,11	3,12	3,12	3,11	3,02	3,09	3,01	3,07	3,00	2,94	2,92	3,02	3,09	3,08
Water flow rate system side	l/h	55859	64457	72661	83082	89692	95662	99076	107055	111979	116764	123749	138653	151682	164102
Pressure drop system side	kPa	35	39	33	39	46	52	56	55	61	66	67	45	54	64

Cooling performances with free-cooling (2)

Cooling capacity	kW	387,5	406,1	478,1	496,6	505,0	577,5	582,4	656,5	663,9	670,1	677,6	761,7	844,0	925,5
Input power	kW	13,9	13,9	16,7	16,7	16,7	19,5	19,5	22,3	22,3	22,3	22,3	25,1	27,9	30,7
Free cooling total input current	A	20,1	20,1	24,1	24,1	24,1	28,1	28,1	32,2	32,2	32,2	32,2	36,2	40,2	44,2
EER	W/W	27,79	29,12	28,57	29,68	30,18	29,58	29,83	29,42	29,75	30,03	30,37	30,35	30,26	30,16
Water flow rate system side	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Pressure drop system side	kPa	52	62	52	64	74	77	82	80	87	94	99	75	83	94

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C

NSM - N

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: F**Cooling performance chiller operation (1)**

Cooling capacity	kW	1004,9	1098,6	1161,7	1218,0	1274,5	1318,1	1361,6	1478,4	-	-	-	-	-
Input power	kW	332,9	349,5	369,2	392,7	416,2	433,5	450,9	472,0	-	-	-	-	-
Cooling total input current	A	544,1	569,7	600,1	638,5	677,0	708,3	739,7	770,6	-	-	-	-	-
EER	W/W	3,02	3,14	3,15	3,10	3,06	3,04	3,02	3,13	-	-	-	-	-
Water flow rate system side	l/h	172652	188754	199587	209274	218966	226457	233947	254013	-	-	-	-	-
Pressure drop system side	kPa	70	71	84	88	74	78	85	64	-	-	-	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	874,3	1018,1	1092,1	1164,5	1236,6	1246,2	1254,9	1339,1	-	-	-	-	-
Input power	kW	30,2	35,7	38,5	41,2	44,0	44,0	44,0	46,7	-	-	-	-	-
Free cooling total input current	A	43,8	51,7	55,7	59,7	63,7	63,7	63,7	67,7	-	-	-	-	-
EER	W/W	28,91	28,48	28,37	28,24	28,11	28,33	28,52	28,65	-	-	-	-	-
Water flow rate system side	l/h	172840	188960	199810	209510	219210	226710	234210	254300	-	-	-	-	-
Pressure drop system side	kPa	102	100	114	117	103	109	118	93	-	-	-	-	-

Model: P**Cooling performance chiller operation (1)**

Cooling capacity	kW	998,8	1092,7	1155,6	1211,7	1267,7	1310,9	1354,2	1470,0	-	-	-	-	-
Input power	kW	336,7	353,2	373,0	396,5	420,0	437,6	455,3	476,9	-	-	-	-	-
Cooling total input current	A	544,1	569,7	600,1	638,5	677,0	708,3	739,7	770,6	-	-	-	-	-
EER	W/W	2,97	3,09	3,10	3,06	3,02	3,00	2,97	3,08	-	-	-	-	-
Water flow rate system side	l/h	171604	187733	198553	208183	217806	225235	232663	252555	-	-	-	-	-
Pressure drop system side	kPa	70	71	85	89	75	78	85	64	-	-	-	-	-

Cooling performances with free-cooling (2)

Cooling capacity	kW	933,0	1086,4	1165,3	1242,2	1318,7	1329,5	1339,1	1429,1	-	-	-	-	-
Input power	kW	30,7	36,3	39,0	41,8	44,6	44,6	44,6	47,4	-	-	-	-	-
Free cooling total input current	A	44,2	52,3	56,3	60,3	64,3	64,3	64,3	68,3	-	-	-	-	-
EER	W/W	30,41	29,96	29,84	29,69	29,55	29,79	30,01	30,14	-	-	-	-	-
Water flow rate system side	l/h	172840	188960	199810	209510	219210	226710	234210	254300	-	-	-	-	-
Pressure drop system side	kPa	102	101	114	118	104	109	118	94	-	-	-	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	7,41	7,05	6,65	6,29	6,78	6,52	6,34	6,73	6,56	6,31	6,10	6,55	6,32	6,50
	E	W/W	7,22	6,77	7,10	6,65	6,30	6,89	6,59	6,81	6,69	6,42	6,09	6,28	6,23	6,44
	N	W/W	7,68	7,36	7,56	7,20	6,78	7,10	6,94	7,15	6,90	6,67	6,45	6,78	6,94	6,93
	U	W/W	7,50	7,13	7,47	7,13	6,79	7,22	6,97	7,28	7,03	6,82	6,62	6,97	6,75	6,86
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	7,41	7,05	6,65	6,29	6,78	6,52	6,34	6,73	6,56	6,31	6,10	6,55	6,32	6,50
	E	W/W	7,22	6,77	7,10	6,65	6,30	6,89	6,59	6,81	6,69	6,42	6,09	6,28	6,23	6,44
	N	W/W	7,68	7,36	7,56	7,20	6,78	7,10	6,94	7,15	6,90	6,67	6,45	6,78	6,94	6,93
	U	W/W	7,50	7,13	7,47	7,13	6,79	7,22	6,97	7,28	7,03	6,82	6,62	6,97	6,75	6,86
Model: P																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	7,38	7,12	6,67	6,25	6,79	6,49	6,27	6,71	6,49	6,23	5,99	6,51	6,26	6,44
	E	W/W	7,25	6,73	7,15	6,60	6,20	6,83	6,51	6,84	6,61	6,31	5,99	6,46	6,22	6,34
	N	W/W	7,71	7,39	7,62	7,22	6,83	7,18	6,91	7,16	6,88	6,63	6,39	6,75	6,90	6,88
	U	W/W	7,57	7,17	7,56	7,16	6,77	7,23	6,97	7,30	7,02	6,78	6,56	6,97	6,71	6,81
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	7,38	7,12	6,67	6,25	6,79	6,49	6,27	6,71	6,49	6,23	5,99	6,51	6,26	6,44
	E	W/W	7,25	6,73	7,15	6,60	6,20	6,83	6,51	6,84	6,61	6,31	5,99	6,46	6,22	6,34
	N	W/W	7,71	7,39	7,62	7,22	6,83	7,18	6,91	7,16	6,88	6,63	6,39	6,75	6,90	6,88
	U	W/W	7,57	7,17	7,56	7,16	6,77	7,23	6,97	7,30	7,02	6,78	6,56	6,97	6,71	6,81

(1) Calculation performed with FIXED water flow rate.

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: F															
Energy index															
SEPR	A	W/W	6,16	6,38	6,15	5,85	6,01	6,21	6,10	6,58	6,36	6,67	6,49	6,16	6,41
	E	W/W	6,50	6,19	6,41	5,96	6,00	6,16	6,47	6,70	6,81	6,19	6,44	-	-
	N	W/W	6,63	6,78	6,89	7,00	6,93	6,71	6,69	7,26	-	-	-	-	-
	U	W/W	6,90	6,51	6,82	6,49	6,51	6,66	6,80	7,14	7,19	6,84	6,97	-	-
Model: P															
Energy index															
SEPR	A	W/W	6,07	6,28	6,03	5,73	5,92	6,11	5,98	6,54	6,30	6,61	6,42	6,10	6,34
	E	W/W	6,41	6,06	6,29	5,84	5,92	6,08	6,37	6,64	6,76	6,09	6,34	-	-
	N	W/W	6,57	6,90	6,84	6,96	6,92	6,78	6,65	7,23	-	-	-	-	-
	U	W/W	6,86	6,60	6,76	6,42	6,48	6,63	6,77	7,12	7,16	6,80	6,93	-	-

ELECTRIC DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electric data																
Maximum current (FLA)	A	A	243,9	271,9	299,1	332,5	374,4	395,7	417,0	450,2	474,9	474,9	474,9	531,4	579,4	635,9
	E,U	A	243,9	271,9	307,6	341,0	374,4	404,2	425,5	458,7	483,4	483,4	483,4	539,9	587,9	644,4
	N	A	252,4	280,4	316,1	349,5	382,9	412,7	434,0	467,2	491,9	491,9	491,9	548,4	604,9	667,2
Peak current (LRA)	A	A	265,5	307,3	350,2	388,2	419,8	466,8	484,0	519,5	529,4	529,4	529,4	661,9	701,8	831,3
	E,U	A	265,5	307,3	358,7	396,7	419,8	475,3	492,5	528,0	537,9	537,9	537,9	670,4	710,3	839,8
	N	A	274,0	315,8	367,2	405,2	428,3	483,8	501,0	536,5	546,4	546,4	546,4	678,9	727,3	862,6
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Electric data																
Maximum current (FLA)	A	A	683,9	731,4	770,4	813,4	864,9	913,2	947,2	980,7	1028,7	1123,7	1162,7	1300,2	1419,2	
	E,U	A	700,9	739,9	793,2	836,2	887,7	930,2	972,7	997,7	1054,2	1132,2	1179,7	-	-	
	N	A	715,2	771,2	818,7	870,2	921,7	955,7	989,7	1023,2	-	-	-	-	-	
Peak current (LRA)	A	A	858,2	930,7	953,4	1108,4	1163,9	1290,2	1287,2	1069,4	1096,3	1200,0	1222,7	1480,2	1603,2	
	E,U	A	875,2	939,2	976,2	1131,2	1186,7	1307,2	1312,7	1086,4	1121,8	1208,5	1239,7	-	-	
	N	A	889,5	970,5	1001,7	1165,2	1220,7	1332,7	1329,7	1111,9	-	-	-	-	-	

GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Compressor																
Type	A,E,N,U	type	screw													
Compressor regulation	A,E,N,U	Type	On-Off													
Number	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R134a													
Refrigerant charge	A	kg	64,0	64,0	64,0	64,0	80,0	80,0	80,0	96,0	96,0	101,0	106,0	117,0	112,0	128,0
	E,U	kg	64,0	64,0	80,0	80,0	80,0	96,0	96,0	112,0	112,0	117,0	122,0	133,0	128,0	144,0
	N	kg	80,0	80,0	96,0	96,0	96,0	112,0	112,0	128,0	128,0	133,0	138,0	149,0	160,0	176,0

System side heat exchanger

Type	A,E,N,U	type	Shell and tube													
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Hydraulic connections

Connections (in/out)	A,E,N,U	Type	Grooved joints													
----------------------	---------	------	----------------	--	--	--	--	--	--	--	--	--	--	--	--	--

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Compressor																
Type	A,E,N,U	type							screw							
Compressor regulation	A,E,N,U	Type							On-Off							
Number	A	no.	2	2	2	2	2	2	3	3	3	3	3	3	3	
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-	
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-	
Circuits	A	no.	2	2	2	2	2	2	3	3	3	3	3	3	3	
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-	
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-	
Refrigerant	A,E,N,U	type							R134a							
Refrigerant charge	A	kg	128,0	144,0	144,0	144,0	160,0	176,0	176,0	192,0	192,0	224,0	224,0	240,0	272,0	
	E,U	kg	160,0	160,0	176,0	176,0	192,0	208,0	224,0	224,0	240,0	240,0	256,0	-	-	
	N	kg	176,0	208,0	224,0	240,0	256,0	256,0	256,0	272,0	-	-	-	-	-	

System side heat exchanger

Type	A,E,N,U	type	Shell and tube													
Number	A	no.	1	1	1	1	1	1	1	2	2	2	2	2	2	2
	E,U	no.	1	1	1	1	2	2	2	2	2	2	2	-	-	-
	N	no.	1	2	2	2	2	2	2	2	-	-	-	-	-	-

Hydraulic connections

Connections (in/out)	A,E,N,U	Type	Grooved joints													
----------------------	---------	------	----------------	--	--	--	--	--	--	--	--	--	--	--	--	--

G.s. = Grooved joints

SOUND DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Sound data calculated in cooling mode (1)																
Sound power level	A	dB(A)	98,0	98,0	98,0	98,0	99,0	99,0	99,0	99,7	99,7	99,7	99,7	100,4	100,4	101,1
	E	dB(A)	91,0	91,0	91,7	91,9	92,1	92,6	92,5	93,0	93,0	93,0	93,0	93,7	93,9	94,6
	N	dB(A)	91,7	91,7	92,3	92,5	92,6	93,1	93,0	93,5	93,5	93,5	93,5	94,1	94,6	95,2
	U	dB(A)	98,0	98,0	98,9	99,0	99,0	99,7	99,7	100,4	100,4	100,4	100,4	100,9	101,0	101,5
Sound pressure level (10 m)	A	dB(A)	65,6	65,6	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,1	67,1	67,6	67,7	68,2
	E	dB(A)	58,6	58,6	59,2	59,4	59,5	59,9	59,9	60,3	60,3	60,3	60,3	60,8	61,0	61,6
	N	dB(A)	59,2	59,2	59,7	59,9	60,0	60,3	60,3	60,6	60,6	60,6	60,6	61,1	61,5	62,0
	U	dB(A)	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,6	67,6	67,6	67,6	68,1	68,1	68,5

(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).

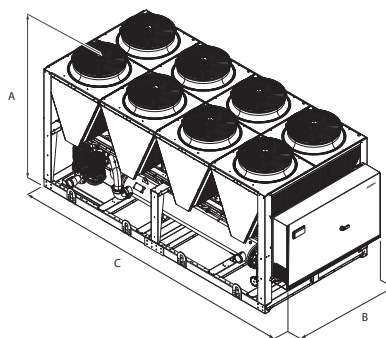
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Sound data calculated in cooling mode (1)															
Sound power level	A	dB(A)	101,1	101,6	101,6	101,6	102,1	102,5	102,5	102,7	102,8	103,4	103,4	103,7	104,2
	E	dB(A)	95,2	95,2	95,4	95,6	96,0	96,2	96,4	96,0	96,5	96,4	96,6	-	-
	N	dB(A)	95,5	96,0	96,2	96,6	96,9	96,9	96,9	96,7	-	-	-	-	-
	U	dB(A)	102,0	102,0	102,4	102,4	102,8	103,1	103,4	103,4	103,7	103,7	103,9	-	-
Sound pressure level (10 m)	A	dB(A)	68,2	68,6	68,6	68,6	69,0	69,2	69,2	69,4	69,4	69,8	69,8	70,0	70,4
	E	dB(A)	62,1	62,0	62,2	62,3	62,7	62,8	62,9	62,5	62,8	62,8	62,8	-	-
	N	dB(A)	62,3	62,5	62,6	62,9	63,1	63,1	63,1	62,8	-	-	-	-	-
	U	dB(A)	68,9	68,9	69,1	69,2	69,5	69,7	69,9	69,8	70,0	70,0	70,2	-	-

(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).

FANS DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m³/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
	E	m³/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
	N	m³/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
	U	m³/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
Model: P																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m³/h	109600	109600	109600	109600	137000	137000	137000	164400	164400	164400	164400	191800	191800	219200
	E	m³/h	85600	85600	107000	107000	107000	128400	128400	149800	149800	149800	149800	171200	171200	192600
	N	m³/h	107000	107000	128400	128400	128400	149800	149800	171200	171200	171200	171200	192600	214000	235400
	U	m³/h	109600	109600	137000	137000	137000	164400	164400	191800	191800	191800	191800	219200	219200	246600
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Model: F																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	16	18	18	18	20	22	22	24	24	28	28	30	34	
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	-	-	
	N	no.	22	26	28	30	32	32	32	34	-	-	-	-	-	
Air flow rate	A	m³/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000	493000	
	E	m³/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400	-	-	
	N	m³/h	246400	291200	313600	336000	358400	358400	358400	380800	-	-	-	-	-	
	U	m³/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000	-	-	
Model: P																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	16	18	18	18	20	22	22	24	24	28	28	30	34	
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	-	-	
	N	no.	22	26	28	30	32	32	32	34	-	-	-	-	-	
Air flow rate	A	m³/h	219200	246600	246600	246600	274000	301400	301400	328800	328800	383600	383600	411000	465800	
	E	m³/h	214000	214000	235400	235400	256800	278200	299600	299600	321000	321000	342400	-	-	
	N	m³/h	235400	278200	299600	321000	342400	342400	342400	363800	-	-	-	-	-	
	U	m³/h	274000	274000	301400	301400	328800	356200	383600	383600	411000	411000	438400	-	-	

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Dimensions and weights																
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330	9520
	E,U	mm	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520	10710
	N	mm	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900	13090
Empty weight	A	kg	4695	4730	4870	5200	6065	6080	6285	6950	7145	7200	7300	8500	8975	9590
	E,U	kg	4855	4875	5435	6025	6380	7025	7045	7625	7715	7785	7880	9145	9605	10475
	N	kg	5370	5390	6065	6655	7010	7560	7585	8175	8265	8340	8430	9930	10905	11630
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Dimensions and weights																
A	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	
	E,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	-	-	
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-	-	-	
B	A	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	
	E,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	-	-	
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-	-	-	
C	A	mm	9520	10710	10710	10710	11900	13090	13090	14280	14280	16660	16660	17850	20230	
	E,U	mm	11900	11900	13090	13090	14280	15470	16660	16660	17850	17850	19040	-	-	
	N	mm	13090	15470	16660	17850	19040	19040	19040	20230	-	-	-	-	-	
Empty weight	A	kg	9655	10475	10525	10945	11580	12265	12305	14815	14880	16240	16290	17510	18895	
	E,U	kg	11070	11130	12135	12260	13260	13800	14340	16230	16825	16940	17955	-	-	
	N	kg	11700	13205	13990	14725	15460	15505	15550	18085	-	-	-	-	-	

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

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.

Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NSM 1402-9603 B

Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 305,8 ÷ 2028,1 kW

- Microchannel coil
- Night mode
- Operation up to 50 °C outdoor air
- High efficiency also at partial loads



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

Electronic expansion valve

Electronic thermostatic as standard from size 5202 to 6402 and from 8403 to 9603.

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

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.
- **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.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MOD-BUS protocol.

AER485P1 x n° 3: RS-485 interface for supervision systems with MOD-BUS protocol.

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.

PRV3: Allows you to control the chiller at a distance.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

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

ACCESSORIES COMPATIBILITY

Model	Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
AER485P1 x n° 2 (1)	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Model	Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1 x n° 2 (1)	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
AER485P1 x n° 3 (1)	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3	A,E,N,U	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	AVX929	AVX929	AVX929	AVX932	AVX933	AVX933	AVX933	AVX934	AVX937	AVX937	AVX937	AVX938	AVX938	AVX942
E,U	AVX929	AVX929	AVX930	AVX933	AVX933	AVX934	AVX934	AVX935	AVX935	AVX935	AVX935	AVX939	AVX939	AVX940
N	AVX930	AVX930	AVX931	AVX931	AVX934	AVX935	AVX935	AVX936	AVX936	AVX936	AVX936	AVX940	AVX941	AVX943

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	AVX942	AVX944	AVX944	AVX944	AVX945	AVX947	AVX947	AVX953	AVX953	AVX957	AVX954	AVX956	AVX955
E,U	AVX941	AVX945	AVX947	AVX947	AVX950	AVX952	AVX948	AVX954	AVX956	AVX956	AVX958	-	-
N	AVX943	AVX946	AVX948	AVX949	AVX951	AVX951	AVX951	AVX955	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
A	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352Q	RIFNSM2502Q	RIFNSM2652Q	RIFNSM2802C
E	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
N	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802C	RIFNSM2002Q	RIFNSM2202C	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
U	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002C	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C

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

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
A,E,U	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	RIFNSM4502C	RIFNSM4802C	RIFNSM5202C
N	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	RIFNSM5602C	RIFNSM6002C	RIFNSM6402C	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

Anti-intrusion grid

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	GP4V	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V
E,U	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V	GP8V	GP8V	GP9V
N	GP5V	GP5V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP8V	GP8V	GP9V	GP10V	GP11V

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

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	GP8V	GP9V	GP9V	GP9V	GP10V	GP11V	GP11V	GP4V+GP8V	GP4V+GP8V	GP5V+GP9V	GP5V+GP9V	GP5V+GP10V	GP6V+GP11V
E,U	GP10V	GP10V	GP11V	GP11V	GP6V+GP6V	GP6V+GP7V	GP7V+GP7V	GP5V+GP9V	GP5V+GP10V	GP5V+GP10V	GP6V+GP11V	-	-
N	GP11V	GP6V+GP7V	GP7V+GP7V	GP8V	GP8V+GP8V	GP8V+GP8V	GP8V+GP8V	GP6V+GP11V	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

Heater exchangers

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
A	KRS22	KRS22	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23
E,N,U	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23

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

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
A,E,U	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
N	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23

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

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	KRS24	KRS24	KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24
E,U	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	-	-
N	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

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

Acoustic kit

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
E,N	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)

(1) Available only in low noise version

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

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
E,N	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)

(1) Available only in low noise version

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

Double thickness evaporator insulation

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A,E,N,U	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)

(1) Contact us.

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

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A,E,N,U	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)

(1) Contact us.

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

CONFIGURATOR

Field	Description
1,2,3	NSM
4,5,6,7	Size 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603
8	Operating yield
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
Y	Low temperature mechanic thermostatic valve (3)
Z	Low temperature electronic thermostatic valve (3)
9	Model
B	Free-cooling glycol free
G	Free-cooling glycol free plus (4)
10	Heat recovery
°	Without heat recovery
11	Version
A	High efficiency
E	Silenced high efficiency
N	Silenced very high efficiency
U	Very high efficiency
12	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium

Field	Description
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
13	Fans
°	Standard
J	Inverter
14	Power supply
°	400V ~ 3 50Hz with fuses
2	230V ~ 3 50Hz with fuses (5)
4	230V ~ 3 50Hz with magnet circuit breakers (5)
5	500V ~ 3 50Hz with fuses (6)
8	400V ~ 3 50Hz with magnet circuit breakers
9	500V ~ 3 50Hz with magnet circuit breakers (6)
15,16	Integrated hydronic kit
00	Without hydronic kit

(1) Water produced up to +4 °C.

(2) Water produced up to +4 °C

(3) Water produced from +4 °C ÷ -6 °C

(4) The Free cooling Plus "G" models are only compatible with "" and "O" coils.

(5) Available only for size from 1402 to 2202

(6) Available only for size from 1402 to 3202

PERFORMANCE SPECIFICATIONS

NSM - A

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B															
Cooling performance chiller operation (1)															
Cooling capacity	kW	306,5	350,2	396,8	450,5	505,3	522,5	556,5	600,8	649,8	678,4	726,3	813,3	872,8	954,1
Input power	kW	102,8	117,6	136,7	158,3	168,9	180,5	194,5	203,0	220,4	235,0	252,8	269,7	295,6	317,9
Cooling total input current	A	182,0	206,0	231,0	268,0	291,0	311,0	335,0	351,0	378,0	400,0	427,0	451,0	487,0	530,0
EER	W/W	2,98	2,98	2,90	2,85	2,99	2,90	2,86	2,96	2,95	2,89	2,87	3,02	2,95	3,00
Water flow rate system side	l/h	52653	60163	68174	77407	86812	89765	95621	103224	111642	116561	124785	139737	149957	163932
Pressure drop system side	kPa	73	94	100	72	90	96	108	107	117	100	94	81	93	112
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	201,2	207,2	212,6	221,0	271,8	273,9	277,4	334,0	337,2	352,7	355,8	414,1	417,7	460,7
Input power	kW	18,5	18,5	18,5	18,5	24,6	24,6	24,6	32,7	32,7	32,9	32,9	38,1	38,1	42,0
Free cooling total input current	A	33,0	32,0	31,0	31,0	42,0	42,0	42,0	57,0	56,0	56,0	56,0	64,0	63,0	70,0
EER	W/W	10,87	11,19	11,48	11,92	11,06	11,14	11,28	10,20	10,30	10,71	10,81	10,86	10,95	10,97

Model: G

Cooling performance chiller operation (1)															
Cooling capacity	kW	305,8	349,3	395,0	447,3	502,1	519,1	552,6	597,2	645,4	674,3	721,9	807,8	865,0	946,8
Input power	kW	103,7	118,8	138,1	160,2	170,8	182,6	197,0	205,3	223,1	238,4	257,1	273,3	299,3	321,8
Cooling total input current	A	184,0	208,0	233,0	271,0	294,0	315,0	339,0	355,0	382,0	405,0	433,0	456,0	492,0	536,0
EER	W/W	2,95	2,94	2,86	2,79	2,94	2,84	2,81	2,91	2,89	2,83	2,81	2,96	2,89	2,94
Water flow rate system side	l/h	52546	60019	67864	76853	86266	89180	94948	102598	110891	115859	124023	138789	148609	162675
Pressure drop system side	kPa	48	64	74	62	78	84	95	70	74	81	74	86	98	68
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	213,5	220,0	226,6	237,8	288,8	291,7	294,5	353,1	360,2	374,3	378,1	439,1	443,5	495,5
Input power	kW	18,3	18,3	18,3	18,3	24,2	24,2	24,2	32,1	32,1	32,3	32,3	37,4	37,4	41,3
Free cooling total input current	A	32,0	32,0	31,0	31,0	42,0	42,0	42,0	55,0	55,0	55,0	54,0	62,0	61,0	69,0
EER	W/W	11,68	12,03	12,39	12,99	11,92	12,04	12,16	11,00	11,22	11,59	11,71	11,74	11,86	12,00

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - A

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B														
Cooling performance chiller operation (1)														
Cooling capacity	kW	996,8	1082,3	1128,3	1167,3	1222,8	1304,9	1346,7	1459,2	1501,9	1659,0	1705,0	1838,1	2028,1
Input power	kW	346,1	365,7	391,9	422,5	438,9	452,7	472,4	492,1	520,2	557,2	583,3	659,0	704,1
Cooling total input current	A	581,0	614,0	655,0	704,0	733,0	761,0	796,0	821,0	872,0	945,0	986,0	1100,0	1198,0
EER	W/W	2,88	2,96	2,88	2,76	2,79	2,88	2,85	2,97	2,89	2,98	2,92	2,79	2,88
Water flow rate system side	l/h	171269	185947	193855	200561	210092	224201	231379	250713	258050	285029	292937	315803	348457
Pressure drop system side	kPa	122	132	143	116	109	125	133	112	127	132	143	108	135
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	464,4	522,4	524,0	526,5	571,2	612,5	614,9	684,4	688,1	798,8	801,4	867,6	965,2
Input power	kW	42,0	46,2	46,2	46,2	50,1	53,8	53,9	60,5	60,5	70,7	70,8	78,9	86,8
Free cooling total input current	A	71,0	77,0	77,0	77,0	84,0	91,0	91,0	101,0	101,0	120,0	120,0	132,0	148,0
EER	W/W	11,06	11,32	11,35	11,41	11,41	11,38	11,41	11,31	11,37	11,29	11,32	10,99	11,12
Model: G														
Cooling performance chiller operation (1)														
Cooling capacity	kW	988,7	1074,2	1119,1	1156,4	1212,7	1295,2	1336,2	1447,7	1489,6	1646,9	1691,9	1822,8	2013,1
Input power	kW	350,6	370,3	397,1	428,3	444,3	458,0	478,2	498,2	527,1	564,0	590,8	667,1	712,4
Cooling total input current	A	588,0	621,0	663,0	713,0	741,0	769,0	805,0	830,0	882,0	956,0	998,0	1112,0	1211,0
EER	W/W	2,82	2,90	2,82	2,70	2,73	2,83	2,79	2,91	2,83	2,92	2,86	2,73	2,83
Water flow rate system side	l/h	169873	184553	192278	198678	208362	222522	229577	248739	255937	282961	290686	313186	345875
Pressure drop system side	kPa	74	91	98	86	95	109	116	84	84	110	110	101	116
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	500,3	559,0	564,4	569,9	610,4	656,1	662,5	737,9	742,7	856,4	861,8	926,6	1037,6
Input power	kW	41,3	45,5	45,5	45,5	49,3	53,1	53,1	59,6	59,6	69,7	69,7	77,6	85,4
Free cooling total input current	A	69,0	76,0	76,0	76,0	82,0	89,0	89,0	99,0	100,0	118,0	118,0	129,0	145,0
EER	W/W	12,12	12,30	12,42	12,54	12,38	12,36	12,48	12,38	12,46	12,29	12,37	11,95	12,15

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - E

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: B**Cooling performance chiller operation (1)**

Cooling capacity	kW	319,8	365,8	417,7	473,0	509,1	549,8	568,8	618,6	646,3	675,1	715,5	796,7	851,7	929,6
Input power	kW	105,5	123,3	137,5	159,4	178,3	183,3	195,5	205,2	220,4	235,9	253,5	270,8	297,1	320,1
Cooling total input current	A	177,0	206,0	223,0	261,0	295,0	305,0	326,0	342,0	365,0	389,0	415,0	438,0	474,0	517,0
EER	W/W	3,03	2,97	3,04	2,97	2,85	3,00	2,91	3,01	2,93	2,86	2,82	2,94	2,87	2,90
Water flow rate system side	l/h	54946	62848	71763	81260	87462	94455	97732	106280	111042	115993	122937	136886	146332	159723
Pressure drop system side	kPa	62	76	84	78	90	88	94	100	109	91	94	80	92	110

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	186,6	192,0	231,5	241,7	246,1	294,5	297,3	334,0	337,2	351,6	354,9	403,7	407,3	448,1
Input power	kW	15,5	15,5	19,5	19,6	19,6	26,8	26,8	30,6	30,6	31,0	31,0	34,0	34,0	36,8
Free cooling total input current	A	26,0	26,0	32,0	32,0	32,0	44,0	45,0	51,0	51,0	51,0	51,0	55,0	54,0	59,0
EER	W/W	12,01	12,36	11,89	12,34	12,57	11,01	11,11	10,92	11,03	11,35	11,45	11,88	11,98	12,18

Model: G**Cooling performance chiller operation (1)**

Cooling capacity	kW	316,7	363,1	414,5	469,5	504,1	545,4	564,0	613,8	640,8	669,8	710,9	790,6	843,5	921,3
Input power	kW	106,6	124,7	138,6	161,1	181,0	185,4	197,8	207,6	223,1	239,2	257,8	274,6	301,1	324,4
Cooling total input current	A	179,0	208,0	225,0	263,0	298,0	308,0	329,0	345,0	369,0	393,0	421,0	443,0	480,0	523,0
EER	W/W	2,97	2,91	2,99	2,91	2,79	2,94	2,85	2,96	2,87	2,80	2,76	2,88	2,80	2,84
Water flow rate system side	l/h	54406	62391	71215	80666	86616	93710	96910	105465	110105	115087	122135	135840	144915	158291
Pressure drop system side	kPa	36	42	54	66	76	54	58	59	65	71	73	47	54	66

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	197,2	203,1	242,3	255,6	258,0	307,4	310,5	349,3	352,8	266,5	373,6	421,8	425,7	470,1
Input power	kW	15,2	15,2	19,1	19,2	19,2	26,1	26,1	29,9	29,9	30,3	30,3	33,3	33,3	36,1
Free cooling total input current	A	26,0	25,0	31,0	31,0	32,0	43,0	44,0	50,0	50,0	50,0	49,0	54,0	53,0	58,0
EER	W/W	12,94	13,32	12,67	13,29	13,42	11,76	11,88	11,68	11,79	12,11	12,35	12,68	12,80	13,02

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - E

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
------	--	------	------	------	------	------	------	------	------	------	------	------	------	------

Model: B**Cooling performance chiller operation (1)**

Cooling capacity	kW	995,2	1051,6	1137,0	1159,2	1217,3	1279,4	1341,6	1434,0	1499,6	1598,6	1684,0	-	-
Input power	kW	339,9	370,0	389,4	418,0	436,6	448,9	461,2	491,1	510,9	568,9	588,3	-	-
Cooling total input current	A	555,0	601,0	632,0	678,0	708,0	732,0	755,0	804,0	832,0	924,0	945,0	-	-
EER	W/W	2,93	2,84	2,92	2,77	2,79	2,85	2,91	2,92	2,93	2,81	2,86	-	-
Water flow rate system side	l/h	170980	180685	195353	199172	209139	219823	230507	246385	257643	274665	289333	-	-
Pressure drop system side	kPa	125	128	130	135	84	115	112	110	121	121	130	-	-

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	495,6	509,3	549,8	551,2	600,1	640,5	682,5	692,0	739,5	761,7	802,2	-	-
Input power	kW	44,0	44,2	46,9	47,0	53,5	57,3	61,5	56,4	63,5	65,6	68,4	-	-
Free cooling total input current	A	72,0	72,0	76,0	76,0	87,0	93,0	100,0	92,0	104,0	107,0	110,0	-	-
EER	W/W	11,27	11,54	11,72	11,73	11,22	11,17	11,14	12,27	11,64	11,60	11,72	-	-

Model: G**Cooling performance chiller operation (1)**

Cooling capacity	kW	987,5	1041,9	1127,1	1148,0	1206,7	1269,3	1332,0	1421,7	1487,9	1583,2	1668,4	-	-
Input power	kW	344,2	375,3	394,8	424,0	442,2	454,4	466,6	497,6	517,4	577,4	596,9	-	-
Cooling total input current	A	561,0	609,0	640,0	687,0	717,0	740,0	763,0	814,0	842,0	937,0	957,0	-	-
EER	W/W	2,87	2,78	2,86	2,71	2,73	2,79	2,85	2,86	2,88	2,74	2,80	-	-
Water flow rate system side	l/h	169667	179011	193651	197235	207320	218083	228846	244269	255645	272005	286645	-	-
Pressure drop system side	kPa	76	87	83	86	58	70	70	86	86	100	100	-	-

Cooling performances with free-cooling glycol-free (2)

Cooling capacity	kW	523,4	531,6	576,1	581,5	627,1	669,8	712,5	728,1	781,4	795,8	840,2	-	-
Input power	kW	43,0	43,1	46,0	46,0	52,3	56,1	59,8	55,3	62,2	64,2	67,0	-	-
Free cooling total input current	A	70,0	70,0	74,0	74,0	85,0	91,0	98,0	91,0	101,0	104,0	107,0	-	-
EER	W/W	12,17	12,32	12,53	12,65	11,99	11,95	11,91	13,16	12,55	12,40	12,54	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - U

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B															
Cooling performance chiller operation (1)															
Cooling capacity	kW	328,1	378,5	429,3	491,9	531,3	568,6	589,0	638,0	667,8	695,1	735,8	824,8	891,0	967,9
Input power	kW	105,3	121,3	136,2	155,8	172,9	180,0	191,0	202,4	216,1	228,4	242,4	263,0	288,2	311,5
Cooling total input current	A	186,0	212,0	232,0	266,0	297,0	313,0	332,0	353,0	374,0	392,0	413,0	443,0	477,0	523,0
EER	W/W	3,12	3,12	3,15	3,16	3,07	3,16	3,08	3,15	3,09	3,04	3,04	3,14	3,09	3,11
Water flow rate system side	l/h	56372	65027	73755	84508	91287	97691	101204	109611	114731	119419	126414	141715	153088	166304
Pressure drop system side	kPa	66	81	88	83	96	93	99	106	88	95	87	85	99	117
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	207,3	213,5	254,5	275,3	278,0	330,7	333,2	373,6	391,6	395,4	406,8	452,9	456,9	499,3
Input power	kW	19,5	19,5	24,5	26,5	26,5	32,7	32,8	37,6	38,0	38,0	38,1	42,0	42,0	45,8
Free cooling total input current	A	34,0	34,0	42,0	45,0	46,0	57,0	57,0	65,0	66,0	65,0	65,0	71,0	70,0	77,0
EER	W/W	10,62	10,94	10,40	10,40	10,49	10,10	10,17	9,94	10,31	10,41	10,67	10,79	10,88	10,90
Model: G															
Cooling performance chiller operation (1)															
Cooling capacity	kW	326,9	376,7	427,6	488,8	527,6	565,4	585,6	634,6	664,0	691,7	732,5	820,3	884,7	961,8
Input power	kW	106,3	122,5	137,6	157,4	174,8	181,8	193,0	204,4	218,3	231,1	245,7	266,0	291,3	314,8
Cooling total input current	A	187,0	213,0	234,0	269,0	300,0	316,0	335,0	356,0	377,0	396,0	418,0	447,0	482,0	528,0
EER	W/W	3,08	3,07	3,11	3,10	3,02	3,11	3,03	3,10	3,04	2,99	2,98	3,08	3,04	3,06
Water flow rate system side	l/h	56168	64715	73458	83974	90643	97138	100613	109029	114089	118834	125850	140933	152003	165249
Pressure drop system side	kPa	39	45	58	72	84	59	63	64	70	76	78	51	59	72
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	219,8	228,8	272,7	291,1	297,0	349,6	353,1	394,9	414,0	418,2	430,6	479,9	489,3	530,2
Input power	kW	19,2	19,2	24,1	26,0	26,0	32,1	32,1	36,9	37,3	37,3	37,4	41,3	41,3	45,1
Free cooling total input current	A	34,0	33,0	41,0	44,0	45,0	56,0	56,0	64,0	64,0	64,0	64,0	69,0	68,0	75,0
EER	W/W	11,43	11,90	11,30	11,20	11,42	10,89	11,00	10,71	11,11	11,22	11,51	11,63	11,86	11,77

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - U

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1031,1	1095,0	1181,2	1208,8	1265,8	1326,2	1386,6	1491,1	1554,3	1666,6	1752,7	-	-
Input power	kW	332,0	358,4	379,0	405,3	426,4	440,0	453,5	478,4	498,9	549,8	570,4	-	-
Cooling total input current	A	564,0	605,0	639,0	682,0	718,0	746,0	774,0	812,0	846,0	926,0	954,0	-	-
EER	W/W	3,11	3,06	3,12	2,98	2,97	3,01	3,06	3,12	3,12	3,03	3,07	-	-
Water flow rate system side	l/h	177155	188137	202935	207692	217477	227858	238239	256194	267046	286336	301135	-	-
Pressure drop system side	kPa	119	137	138	145	104	124	113	117	119	137	138	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	565,8	570,9	615,3	617,2	681,2	721,6	762,0	777,2	843,7	865,6	910,0	-	-
Input power	kW	54,1	54,1	57,9	58,0	67,5	71,3	75,2	72,3	80,6	83,9	87,7	-	-
Free cooling total input current	A	92,0	91,0	98,0	97,0	114,0	121,0	128,0	123,0	137,0	141,0	147,0	-	-
EER	W/W	10,46	10,55	10,62	10,65	10,10	10,12	10,14	10,75	10,47	10,32	10,38	-	-
Model: G														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1025,3	1088,1	1174,0	1200,9	1257,9	1318,5	1379,2	1482,0	1545,4	1655,7	1741,6	-	-
Input power	kW	335,5	362,4	383,1	409,7	430,7	444,3	457,9	483,4	504,1	556,1	576,8	-	-
Cooling total input current	A	569,0	611,0	645,0	688,0	725,0	752,0	780,0	819,0	854,0	936,0	963,0	-	-
EER	W/W	3,06	3,00	3,06	2,93	2,92	2,97	3,01	3,07	3,07	2,98	3,02	-	-
Water flow rate system side	l/h	176150	186945	201699	206322	216119	226541	236963	254617	265517	284475	299229	-	-
Pressure drop system side	kPa	81	94	90	94	63	70	75	85	92	103	113	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	600,3	606,3	654,1	660,5	720,3	764,2	808,1	827,1	897,3	920,4	968,2	-	-
Input power	kW	53,1	53,1	57,0	57,0	66,1	69,9	73,8	71,0	79,1	82,2	86,0	-	-
Free cooling total input current	A	90,0	90,0	96,0	96,0	111,0	118,0	126,0	120,0	134,0	138,0	144,0	-	-
EER	W/W	11,30	11,41	11,48	11,60	10,90	10,93	10,95	11,64	11,34	11,20	11,25	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - N

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B															
Cooling performance chiller operation (1)															
Cooling capacity	kW	326,0	376,5	424,5	486,3	525,3	559,6	579,7	626,1	655,1	682,6	723,4	811,7	888,8	960,7
Input power	kW	103,6	119,3	134,4	153,8	170,9	178,3	189,4	200,8	214,8	227,9	242,9	263,8	283,0	307,1
Cooling total input current	A	175,0	200,0	218,0	253,0	283,0	297,0	317,0	335,0	357,0	376,0	399,0	427,0	452,0	497,0
EER	W/W	3,15	3,16	3,16	3,16	3,07	3,14	3,06	3,12	3,05	3,00	2,98	3,08	3,14	3,13
Water flow rate system side	l/h	56017	64687	72926	83554	90260	96150	99597	107568	112546	117285	124287	139460	152704	165051
Pressure drop system side	kPa	54	65	67	83	96	92	98	79	86	93	86	84	100	106
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	220,8	232,6	273,9	282,2	286,3	327,6	330,8	378,1	381,7	385,4	396,5	442,9	482,6	528,7
Input power	kW	18,3	19,6	26,5	26,5	27,4	30,6	30,6	33,8	33,8	33,8	34,0	40,8	43,6	46,5
Free cooling total input current	A	31,0	33,0	43,0	44,0	45,0	51,0	51,0	56,0	56,0	56,0	56,0	66,0	70,0	75,0
EER	W/W	12,04	11,88	10,32	10,63	10,44	10,71	10,82	11,17	11,28	11,39	11,66	10,86	11,07	11,37
Model: G															
Cooling performance chiller operation (1)															
Cooling capacity	kW	325,1	375,2	422,9	483,6	522,0	556,8	576,7	623,1	651,8	679,6	720,3	807,0	882,8	955,1
Input power	kW	104,5	120,4	135,6	155,5	172,9	180,2	191,5	202,9	217,2	230,8	246,4	267,1	286,2	310,3
Cooling total input current	A	176,0	201,0	220,0	255,0	286,0	300,0	320,0	338,0	360,0	381,0	404,0	431,0	457,0	501,0
EER	W/W	3,11	3,12	3,12	3,11	3,02	3,09	3,01	3,07	3,00	2,94	2,92	3,02	3,09	3,08
Water flow rate system side	l/h	55859	64457	72661	83082	89692	95662	99076	107055	111979	116764	123748	138653	151682	164102
Pressure drop system side	kPa	39	46	36	44	51	58	62	40	43	47	46	50	60	72
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	230,8	243,4	284,6	294,0	301,4	342,3	345,8	395,2	403,2	407,2	414,7	463,0	509,0	554,0
Input power	kW	18,0	19,2	25,6	25,9	26,7	29,9	29,9	33,1	33,1	33,1	33,3	39,8	42,6	45,6
Free cooling total input current	A	30,0	32,0	42,0	43,0	44,0	50,0	50,0	55,0	55,0	55,0	55,0	64,0	68,0	74,0
EER	W/W	12,79	12,66	10,98	11,34	11,27	11,44	11,56	11,93	12,17	12,29	12,46	11,62	11,94	12,15

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - N

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1004,9	1098,6	1161,7	1218,0	1274,5	1318,1	1361,7	1478,4	-	-	-	-	-
Input power	kW	332,9	349,5	369,2	392,7	416,2	433,5	450,9	472,0	-	-	-	-	-
Cooling total input current	A	544,0	570,0	600,0	639,0	677,0	708,0	740,0	771,0	-	-	-	-	-
EER	W/W	3,02	3,14	3,15	3,10	3,06	3,04	3,02	3,13	-	-	-	-	-
Water flow rate system side	l/h	172652	188754	199587	209274	218966	226456	233947	254013	-	-	-	-	-
Pressure drop system side	kPa	116	112	104	109	72	78	81	105	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	533,7	625,3	661,6	712,1	756,1	767,1	770,8	815,0	-	-	-	-	-
Input power	kW	46,5	57,3	61,2	64,4	67,7	67,7	67,7	73,9	-	-	-	-	-
Free cooling total input current	A	76,0	93,0	99,0	105,0	110,0	111,0	111,0	121,0	-	-	-	-	-
EER	W/W	11,47	10,91	10,82	11,05	11,17	11,34	11,39	11,03	-	-	-	-	-
Model: G														
Cooling performance chiller operation (1)														
Cooling capacity	kW	998,8	1092,7	1155,6	1211,7	1267,7	1310,9	1354,2	1470,0	-	-	-	-	-
Input power	kW	336,7	353,2	373,0	396,5	420,0	437,6	455,3	476,9	-	-	-	-	-
Cooling total input current	A	550,0	575,0	606,0	644,0	682,0	714,0	746,0	778,0	-	-	-	-	-
EER	W/W	2,97	3,09	3,10	3,06	3,02	3,00	2,97	3,08	-	-	-	-	-
Water flow rate system side	l/h	171604	187733	198553	208183	217806	225235	232663	252555	-	-	-	-	-
Pressure drop system side	kPa	79	67	76	76	41	44	47	72	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	559,3	653,2	691,6	748,6	798,5	804,6	806,4	852,3	-	-	-	-	-
Input power	kW	45,6	56,1	59,8	63,1	66,3	66,2	66,3	72,3	-	-	-	-	-
Free cooling total input current	A	74,0	91,0	97,0	102,0	108,0	108,0	109,0	118,0	-	-	-	-	-
EER	W/W	12,27	11,65	11,56	11,87	12,05	12,15	12,17	11,79	-	-	-	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

ENERGY INDICES (REG. 2016/2281 EU)

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	6,16	5,97	5,71	5,54	5,80	5,60	5,52	5,67	5,57	5,55	5,52	5,72	5,57	5,66
	E	W/W	6,18	5,87	6,03	5,79	5,54	5,86	5,65	5,80	5,67	5,56	5,51	5,72	5,57	5,64
	N	W/W	6,43	6,20	6,09	5,96	5,71	5,94	5,78	6,01	5,85	5,70	5,61	5,76	5,86	5,88
	U	W/W	6,20	6,02	6,11	6,09	5,85	6,00	5,84	5,96	5,92	5,78	5,71	5,96	5,82	5,86
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	6,16	5,97	5,71	5,54	5,80	5,60	5,52	5,67	5,57	5,55	5,52	5,72	5,57	5,66
	E	W/W	6,18	5,87	6,03	5,79	5,54	5,86	5,65	5,80	5,67	5,56	5,51	5,72	5,57	5,64
	N	W/W	6,43	6,20	6,09	5,96	5,71	5,94	5,78	6,01	5,85	5,70	5,61	5,76	5,86	5,88
	U	W/W	6,20	6,02	6,11	6,09	5,85	6,00	5,84	5,96	5,92	5,78	5,71	5,96	5,82	5,86
Model: G																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	6,24	6,04	5,75	5,52	5,79	5,58	5,51	5,71	5,62	5,53	5,51	5,64	5,54	5,71
	E	W/W	6,21	5,91	6,07	5,76	5,51	5,87	5,66	5,84	5,71	5,53	5,51	5,71	5,56	5,66
	N	W/W	6,46	6,23	6,14	6,02	5,77	5,99	5,82	6,08	5,93	5,77	5,64	5,78	5,91	5,91
	U	W/W	6,27	6,11	6,19	6,07	5,83	6,05	5,89	6,04	5,93	5,78	5,68	6,01	5,88	5,92
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	6,24	6,04	5,75	5,52	5,79	5,58	5,51	5,71	5,62	5,53	5,51	5,64	5,54	5,71
	E	W/W	6,21	5,91	6,07	5,76	5,51	5,87	5,66	5,84	5,71	5,53	5,51	5,71	5,56	5,66
	N	W/W	6,46	6,23	6,14	6,02	5,77	5,99	5,82	6,08	5,93	5,77	5,64	5,78	5,91	5,91
	U	W/W	6,27	6,11	6,19	6,07	5,83	6,05	5,89	6,04	5,93	5,78	5,68	6,01	5,88	5,92

(1) Calculation performed with FIXED water flow rate.

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B															
SEPR - (EN14825: 2018) High temperature with standard fans (1)															
SEPR	A	W/W	5,52	5,60	5,53	5,53	5,52	5,52	5,51	5,73	5,60	5,77	5,64	5,52	5,58
	E	W/W	5,61	5,52	5,59	5,54	5,52	5,51	5,60	5,83	5,85	5,55	5,61	-	-
	N	W/W	5,69	5,85	5,82	5,93	5,94	5,87	5,81	6,05	-	-	-	-	-
	U	W/W	5,86	5,72	5,81	5,66	5,62	5,63	5,77	6,04	6,05	5,78	5,85	-	-
SEPR - (EN14825: 2018) High temperature with inverter fans (1)															
SEPR	A	W/W	5,52	5,60	5,53	5,53	5,52	5,52	5,51	5,73	5,60	5,77	5,64	5,52	5,58
	E	W/W	5,61	5,52	5,59	5,54	5,52	5,51	5,60	5,83	5,85	5,55	5,61	-	-
	N	W/W	5,69	5,85	5,82	5,93	5,94	5,87	5,81	6,05	-	-	-	-	-
	U	W/W	5,86	5,72	5,81	5,66	5,62	5,63	5,77	6,04	6,05	5,78	5,85	-	-
Model: G															
SEPR - (EN14825: 2018) High temperature with standard fans (1)															
SEPR	A	W/W	5,57	5,64	5,57	5,53	5,51	5,50	5,51	5,75	5,64	5,77	5,66	5,51	5,58
	E	W/W	5,65	5,52	5,61	5,55	5,49	5,53	5,62	5,81	5,87	5,51	5,58	-	-
	N	W/W	5,72	5,90	5,84	5,97	5,99	5,91	5,84	6,08	-	-	-	-	-
	U	W/W	5,91	5,76	5,87	5,73	5,67	5,71	5,82	6,09	6,09	5,81	5,87	-	-
SEPR - (EN14825: 2018) High temperature with inverter fans (1)															
SEPR	A	W/W	5,57	5,64	5,57	5,53	5,51	5,50	5,51	5,75	5,64	5,77	5,66	5,51	5,58
	E	W/W	5,65	5,52	5,61	5,55	5,49	5,53	5,62	5,81	5,87	5,51	5,58	-	-
	N	W/W	5,72	5,90	5,84	5,97	5,99	5,91	5,84	6,08	-	-	-	-	-
	U	W/W	5,91	5,76	5,87	5,73	5,67	5,71	5,82	6,09	6,09	5,81	5,87	-	-

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electric data																
Maximum current (FLA)	A	A	243,9	271,9	299,1	332,5	374,4	395,7	417,0	450,2	474,9	474,9	474,9	531,4	579,4	635,9
	E,U	A	243,9	271,9	307,6	341,0	374,4	404,2	425,5	458,7	483,4	483,4	483,4	539,9	587,9	644,4
	N	A	252,4	280,4	316,1	349,5	382,9	412,7	434,0	467,2	491,9	491,9	491,9	548,4	604,9	667,2
Peak current (LRA)	A	A	265,5	307,3	350,2	388,2	419,8	466,8	484,0	519,5	529,4	529,4	529,4	661,9	701,8	831,3
	E,U	A	265,5	307,3	358,7	396,7	419,8	475,3	492,5	528,0	537,9	537,9	537,9	670,4	710,3	839,8
	N	A	274,0	315,8	367,2	405,2	428,3	483,8	501,0	536,5	546,4	546,4	546,4	678,9	727,3	862,6
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Electric data																
Maximum current (FLA)	A	A	683,9	731,4	770,4	813,4	864,9	913,2	947,2	980,7	1028,7	1123,7	1162,7	1300,2	1419,2	
	E,U	A	700,9	739,9	793,2	836,2	887,7	930,2	972,7	997,7	1054,2	1132,2	1179,7	-	-	
	N	A	715,2	771,2	818,7	870,2	921,7	955,7	989,7	1023,2	-	-	-	-	-	
Peak current (LRA)	A	A	858,2	930,7	953,4	1108,4	1163,9	1290,2	1287,2	1069,4	1096,3	1200,0	1222,7	1480,2	1603,2	
	E,U	A	875,2	939,2	976,2	1131,2	1186,7	1307,2	1312,7	1086,4	1121,8	1208,5	1239,7	-	-	
	N	A	889,5	970,5	1001,7	1165,2	1220,7	1332,7	1329,7	1111,9	-	-	-	-	-	

GENERAL TECHNICAL DATA

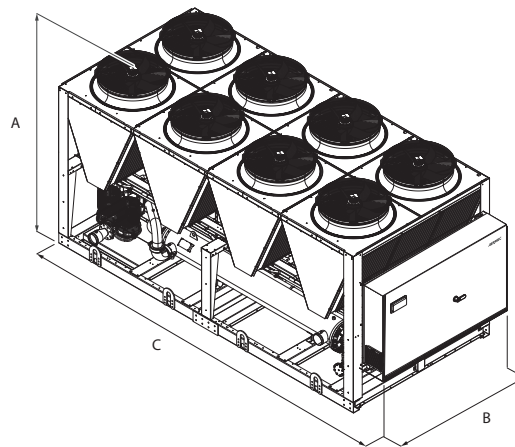
Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Compressor																
Type	A,E,N,U	type	Bi-vite													
Compressor regulation	A,E,N,U	Type	On-Off													
Number	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R134a													
System side heat exchanger																
Type	A,E,N,U	type	Shell and tube													
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,E,N,U	Type	Grooved joints													
Fan																
Type	A,E,N,U	type	Axial													
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m³/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
	E	m³/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
	N	m³/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
	U	m³/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
Sound data calculated in cooling mode (1)																
Sound power level	A	dB(A)	98,0	98,0	98,0	98,0	99,0	99,0	99,0	99,7	99,7	99,7	99,7	100,4	100,4	101,1
	E	dB(A)	91,0	91,0	91,7	91,9	92,1	92,6	92,5	93,0	93,0	93,0	93,0	93,7	93,9	94,6
	N	dB(A)	91,7	91,7	92,3	92,5	92,6	93,1	93,0	93,5	93,5	93,5	93,5	94,1	94,6	95,2
	U	dB(A)	98,0	98,0	98,9	99,0	99,0	99,7	99,7	100,4	100,4	100,4	100,4	100,9	101,0	101,5
Sound pressure level (10 m)	A	dB(A)	65,6	65,6	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,1	67,1	67,6	67,7	68,2
	E	dB(A)	58,6	58,6	59,2	59,4	59,5	59,9	59,9	60,3	60,3	60,3	60,3	60,8	61,0	61,6
	N	dB(A)	59,2	59,2	59,7	59,9	60,0	60,3	60,3	60,6	60,6	60,6	60,6	61,1	61,5	62,0
	U	dB(A)	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,6	67,6	67,6	67,6	68,1	68,1	68,5

(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).

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Compressor															
Type	A,E,N,U	type	Bi-vite												
Compressor regulation	A,E,N,U	Type	On-Off												
Number	A	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Circuits	A	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Refrigerant	A,E,N,U	type	R134a												
System side heat exchanger															
Type	A,E,N,U	type	Shell and tube												
Number	A	no.	1	1	1	1	1	1	1	2	2	2	2	2	2
	E,U	no.	1	1	1	1	2	2	2	2	2	2	2	-	-
	N	no.	1	2	2	2	2	2	2	2	-	-	-	-	-
Connections (in/out)	A,E,N,U	Type	Grooved joints												
Fan															
Type	A,E,N,U	type	Axial												
Number	A	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	-	-
	N	no.	22	26	28	30	32	32	32	34	-	-	-	-	-
Air flow rate	A	m³/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000	493000
	E	m³/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400	-	-
	N	m³/h	246400	291200	313600	336000	358400	358400	358400	380800	-	-	-	-	-
	U	m³/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000	-	-
Sound data calculated in cooling mode (1)															
Sound power level	A	dB(A)	101,1	101,6	101,6	101,6	102,1	102,5	102,5	102,7	102,8	103,4	103,4	103,7	104,2
	E	dB(A)	95,2	95,2	95,4	95,6	96,0	96,2	96,4	96,0	96,5	96,4	96,6	-	-
	N	dB(A)	95,5	96,0	96,2	96,6	96,9	96,9	96,9	96,7	-	-	-	-	-
	U	dB(A)	102,0	102,0	102,4	102,4	102,8	103,1	103,4	103,4	103,7	103,7	103,9	-	-
Sound pressure level (10 m)	A	dB(A)	68,2	68,6	68,6	68,6	69,0	69,2	69,2	69,4	69,4	69,8	69,8	70,0	70,4
	E	dB(A)	62,1	62,0	62,2	62,3	62,7	62,8	62,9	62,5	62,8	62,8	62,8	-	-
	N	dB(A)	62,3	62,5	62,6	62,9	63,1	63,1	63,1	62,8	-	-	-	-	-
	U	dB(A)	68,9	68,9	69,1	69,2	69,5	69,7	69,9	69,8	70,0	70,0	70,2	-	-

(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			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Dimensions and weights																
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
B	A	mm	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330	9520
	E,U	mm	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520	10710
	N	mm	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900	13090
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603	
Dimensions and weights																
A	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-	-	-	-
B	A	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-	-	-	-
C	A	mm	9520	10710	10710	10710	11900	13090	13090	14280	14280	16660	16660	17850	20230	-
	E,U	mm	11900	11900	13090	13090	14280	15470	16660	16660	17850	17850	19040	-	-	-
	N	mm	13090	15470	16660	17850	19040	19040	19040	20230	-	-	-	-	-	-

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

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.

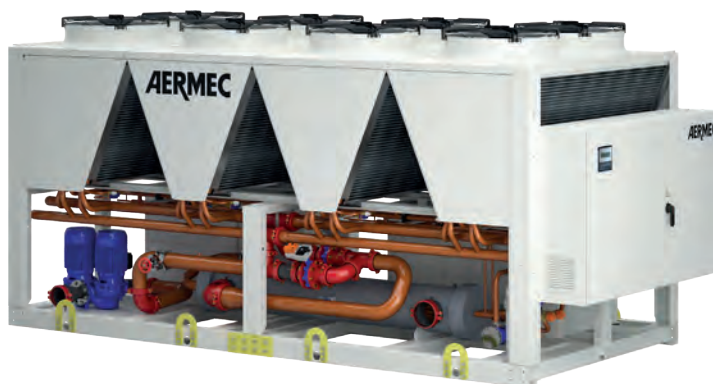
Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NSM-HWT-1402-9603-F

Air-water chiller with free-cooling

Cooling capacity 306 ÷ 2001 kW

- High efficiency also at partial loads
- Microchannel coil
- Ideal in data center applications
- Water outlet temperatures up to 30°C
- Night mode



DESCRIPTION

The NSM are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

VERSIONS

NSM WF_A High Efficiency

NSM WF_E High efficiency low noise

NSM WF_U Very high efficiency

NSM WF_N Very high efficiency low noise

FEATURES

- Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch

- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- Fans inverter
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.

CONTROLS

Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

- Complete with latest generation Touch screen allowing real time graphics visualization showing water and external air temperatures, pressures and requested load.
- Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

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

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.

PRV3: Allows you to control the chiller at a distance.

FB1: Air filter

MULTICHILLER_EVO: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

AVX: Spring anti-vibration supports

ACCESSORIES FACTORY FITTED ONLY**KRS:** Evaporator trace heating**GP:** Anti-intrusion grids.**AK: ACOUSTIC KIT.** This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.**ACCESSORIES COMPATIBILITY**

Size	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX (1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Size	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
AER485P1	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	•	•	•	•	•	•	•	•	•	•	•	•
FB1	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	•	•	•	•	•	•	•	•	•	•	•	•
AVX (1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility

(x2) Indicates the amount to order

KRS: Evaporator trace heating

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all (1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Ver	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all (1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility

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

GP: Anti-intrusion grids

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all (1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Ver	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all (1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility

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

AK: Acoustic kit

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all (2)	•	•	•	•	•	•	•	•	•	•	•	•	•

Ver	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all (2)	•	•	•	•	•	•	•	•	•	•	•	•

(2) The accessory is only available for the "E/N" silenced versions

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

RIF: Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all	RIFNSM1402	RIFNSM1602	RIFNSM1802	RIFNSM2002	RIFNSM2202	RIFNSM2352	RIFNSM2502	RIFNSM2652	RIFNSM2802	RIFNSM3002	RIFNSM3202	RIFNSM3402	RIFNSM3602

Ver	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all	RIFNSM3902	RIFNSM4202	RIFNSM4502	RIFNSM4802	RIFNSM5202	RIFNSM5602	RIFNSM6002	RIFNSM6402	RIFNSM6903	RIFNSM7203	RIFNSM8403	RIFNSM9603

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

CONFIGURATOR

Field	Description
1,2,3	NSM
4,5,6,7	Size 1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202-3402-3602-3902-4202-4502-4802-5202-5602-6002-6402-6903-7203-8403-9603
8	Operating yield
W	Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)
9	Model
F	Free-cooling
P	Free-cooling plus (1)
11	Version
A	High efficiency
E	Silenced high efficiency
U	Very high efficiency
N	Silenced very high efficiency
12	Condensing coils / Free cooling water coils
°	Aluminium microchannel / Copper Aluminium
O	Painted aluminium microchannel / Painted Aluminium Copper
R	Copper - Copper (1) / Copper Copper
S	Copper - Thinned (1) / Copper - Thinned
V	Epoxy paint (only free cooling coil)(1) / Epoxy paint (only free cooling coil)
13	Fans
J	Inverter
14	Power supply
°	400V/3/50Hz
15,16	Integrated hydronic kit
00	Without hydronic kit
PA	Pumping unit (pump A)
PB	Pumping unit (pump B)
PC	Pumping unit (pump C)
PD	Pumping unit (pump D)
PE	Pumping unit (pump E)
PF	Pumping unit (pump F)
PG	Pumping unit (pump G)
PH	Pumping unit (pump H)
PI	Pumping unit (pump I)
PJ	Pumping unit (pump J)
DA	Pumping unit (pump A and stand-by pump)
DB	Pumping unit (pump B and stand-by pump)
DC	Pumping unit (pump C and stand-by pump)
DD	Pumping unit (pump D and stand-by pump)
DE	Pumping unit (pump E and stand-by pump)
DF	Pumping unit (pump F and stand-by pump)
DG	Pumping unit (pump G and stand-by pump)
DH	Pumping unit (pump H and stand-by pump)
DI	Pumping unit (pump I and stand-by pump)
DJ	Pumping unit (pump J and stand-by pump)
TF	Double static, pressure pump (pump F)
TG	Double static, pressure pump (pump G)
TH	Double static, pressure pump (pump h)
TI	Double static, pressure pump (pump i)
TJ	Double static, pressure pump (pump J)

(1) The free cooling plus models can have coils only in options "non" and "0"

PERFORMANCE SPECIFICATIONS

NSMW - FA - PA

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
Input power	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
Cooling total input current	A	146	166	187	200	208	224	242	258	277	290	306	327	348
EER	W/W	3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,80	3,84	3,92	3,86
Water flow rate system side	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
Pressure drop system side	kPa	60	80	95	76	89	99	116	85	91	96	84	93	103
Cooling performances with free-cooling (2)														
Cooling capacity	kW	336	351	363	370	449	454	462	542	551	554	559	644	651
Input power	kW	19,3	19,3	19,3	19,3	24,1	24,1	24,1	28,9	28,9	28,9	28,9	33,7	33,7
Free cooling total input current	A	30,0	30,0	30,0	30,0	37,6	37,6	37,6	45,1	45,1	45,1	45,1	52,6	52,6
EER	W/W	17,43	18,20	18,82	19,20	18,63	18,86	19,16	18,74	19,06	19,15	19,32	19,11	19,29
Water flow rate system side	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
Pressure drop system side	kPa	87	115	139	129	133	147	171	128	141	147	141	146	161
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
Input power	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
Cooling total input current	A	147	167	188	201	210	226	244	260	279	292	308	330	351
EER	W/W	3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
Water flow rate system side	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
Pressure drop system side	kPa	59	79	94	75	89	98	115	84	90	95	83	92	102
Cooling performances with free-cooling (2)														
Cooling capacity	kW	361	378	391	399	484	490	497	584	594	597	602	694	701
Input power	kW	19,7	19,7	19,7	19,7	24,6	24,6	24,6	29,5	29,5	29,5	29,5	34,4	34,4
Free cooling total input current	A	30,6	30,6	30,6	30,6	38,2	38,2	38,2	45,9	45,9	45,9	45,9	53,5	53,5
EER	W/W	18,35	19,22	19,89	20,29	19,69	19,93	20,25	19,81	20,15	20,24	20,41	20,19	20,38
Water flow rate system side	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
Pressure drop system side	kPa	86	114	138	128	131	145	169	127	139	146	139	145	160

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
Input power	kW	216	228	244	260	281	295	319	343	373	388	442	512
Cooling total input current	A	362	377	416	453	478	494	531	567	646	683	740	854
EER	W/W	3,95	3,87	3,92	3,90	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
Water flow rate system side	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
Pressure drop system side	kPa	69	74	91	101	94	110	130	144	116	116	117	138
Cooling performances with free-cooling (2)													
Cooling capacity	kW	735	740	827	836	845	935	1025	1033	1284	1293	1402	1590
Input power	kW	38,5	38,5	43,4	43,4	43,4	48,2	53,0	53,0	67,5	67,5	72,3	81,9
Free cooling total input current	A	60,1	60,1	67,6	67,6	67,6	75,1	82,6	82,6	105,1	105,1	112,7	127,7
EER	W/W	19,07	19,19	19,07	19,27	19,48	19,39	19,33	19,49	19,03	19,17	19,40	19,42
Water flow rate system side	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
Pressure drop system side	kPa	119	127	142	158	159	173	194	213	165	165	179	207
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
Input power	kW	218	230	247	262	284	298	322	346	377	392	447	517
Cooling total input current	A	365	381	420	456	482	498	536	571	652	688	747	861
EER	W/W	3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
Water flow rate system side	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
Pressure drop system side	kPa	69	73	90	100	93	109	129	142	115	115	115	136
Cooling performances with free-cooling (2)													
Cooling capacity	kW	792	797	891	900	910	1007	1104	1113	1384	1393	1510	1713
Input power	kW	39,3	39,3	44,2	44,2	44,2	49,1	54,0	54,0	68,8	68,8	73,7	83,5
Free cooling total input current	A	61,2	61,2	68,8	68,8	68,8	76,5	84,1	84,1	107,0	107,0	114,7	130,0
EER	W/W	20,16	20,28	20,16	20,36	20,58	20,49	20,42	20,59	20,12	20,25	20,49	20,51
Water flow rate system side	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
Pressure drop system side	kPa	118	126	141	156	157	172	192	211	164	164	178	205

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - FE - PE

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	315	362	415	456	478	524	551	599	626	641	667	735	772
Input power	kW	75	91	101	112	120	127	138	145	156	161	169	178	192
Cooling total input current	A	134	158	175	189	199	210	227	240	258	272	288	303	325
EER	W/W	4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
Water flow rate system side	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
Pressure drop system side	kPa	42	49	64	76	85	61	66	68	74	79	80	51	58
Cooling performances with free-cooling (2)														
Cooling capacity	kW	267	273	337	342	344	408	411	474	478	479	482	548	551
Input power	kW	6,4	6,4	7,9	7,9	7,9	9,5	9,5	11,1	11,1	11,1	11,1	12,7	12,7
Free cooling total input current	A	9,4	9,4	11,8	11,8	11,8	14,1	14,1	16,5	16,5	16,5	16,5	18,8	18,8
EER	W/W	41,99	43,01	42,41	43,05	43,31	42,79	43,10	42,64	42,94	43,08	43,29	43,10	43,35
Water flow rate system side	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
Pressure drop system side	kPa	71	86	97	115	127	95	104	102	112	118	122	89	99
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
Input power	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
Cooling total input current	A	134	159	176	190	201	211	229	242	260	274	291	306	328
EER	W/W	4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
Water flow rate system side	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
Pressure drop system side	kPa	42	49	63	75	83	60	65	67	73	78	79	51	57
Cooling performances with free-cooling (2)														
Cooling capacity	kW	285	292	360	365	367	435	438	506	509	511	513	584	587
Input power	kW	6,5	6,5	8,1	8,1	8,1	9,7	9,7	11,3	11,3	11,3	11,3	12,9	12,9
Free cooling total input current	A	9,6	9,6	11,9	11,9	11,9	14,3	14,3	16,7	16,7	16,7	16,7	19,1	19,1
EER	W/W	44,05	45,10	44,49	45,14	45,38	44,88	45,19	44,73	45,03	45,17	45,36	45,18	45,42
Water flow rate system side	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
Pressure drop system side	kPa	70	86	96	113	125	94	102	101	110	116	120	88	98

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	-	-
Input power	kW	202	210	228	241	260	275	296	318	350	364	-	-
Cooling total input current	A	339	348	388	421	443	460	493	526	601	631	-	-
EER	W/W	4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	-	-
Water flow rate system side	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	-	-
Pressure drop system side	kPa	69	78	91	86	94	65	81	81	105	105	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	616	680	686	753	759	826	893	960	1031	1099	-	-
Input power	kW	14,3	15,9	15,9	17,5	17,5	19,1	20,7	22,3	23,8	25,4	-	-
Free cooling total input current	A	21,2	23,5	23,5	25,9	25,9	28,2	30,6	32,9	35,3	37,6	-	-
EER	W/W	43,07	42,76	43,17	43,10	43,39	43,32	43,24	43,16	43,27	43,21	-	-
Water flow rate system side	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	-	-
Pressure drop system side	kPa	107	114	133	128	140	106	121	121	150	150	-	-
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	-	-
Input power	kW	204	212	230	244	263	278	300	321	354	368	-	-
Cooling total input current	A	342	351	392	425	448	464	497	531	607	636	-	-
EER	W/W	4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	-	-
Water flow rate system side	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	-	-
Pressure drop system side	kPa	68	77	90	85	93	64	80	80	104	104	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	657	725	732	803	808	880	952	1024	1099	1171	-	-
Input power	kW	14,5	16,2	16,2	17,8	17,8	19,4	21,0	22,6	24,2	25,9	-	-
Free cooling total input current	A	21,5	23,9	23,9	26,3	26,3	28,7	31,0	33,4	35,8	38,2	-	-
EER	W/W	45,16	44,85	45,26	45,19	45,45	45,40	45,32	45,24	45,35	45,30	-	-
Water flow rate system side	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	-	-
Pressure drop system side	kPa	106	113	131	127	139	104	119	120	148	149	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - FU - PU

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
Input power	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
Cooling total input current	A	148	170	192	204	212	229	244	263	279	291	305	326	345
EER	W/W	3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
Water flow rate system side	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
Pressure drop system side	kPa	46	54	71	84	94	66	72	74	81	86	87	56	64
Cooling performances with free-cooling (2)														
Cooling capacity	kW	344	359	437	450	455	533	540	617	625	629	635	719	728
Input power	kW	19,3	19,3	24,1	24,1	24,1	28,9	28,9	33,7	33,7	33,7	33,7	38,5	38,5
Free cooling total input current	A	30,0	30,0	37,6	37,6	37,6	45,1	45,1	52,6	52,6	52,6	52,6	60,1	60,1
EER	W/W	17,84	18,61	18,16	18,66	18,87	18,43	18,67	18,31	18,54	18,65	18,84	18,66	18,89
Water flow rate system side	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
Pressure drop system side	kPa	77	95	107	127	142	104	114	111	122	129	134	97	109
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
Input power	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
Cooling total input current	A													
EER	W/W	3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
Water flow rate system side	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
Pressure drop system side	kPa	46	54	70	83	93	66	72	73	80	85	86	55	63
Cooling performances with free-cooling (2)														
Cooling capacity	kW	370	386	471	484	490	574	582	665	674	678	685	775	785
Input power	kW	19,7	19,7	24,6	24,6	24,6	29,5	29,5	34,4	34,4	34,4	34,4	39,3	39,3
Free cooling total input current	A													
EER	W/W	18,82	19,66	19,17	19,72	19,94	19,47	19,73	19,34	19,59	19,71	19,91	19,72	19,97
Water flow rate system side	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
Pressure drop system side	kPa	77	94	106	126	140	103	113	111	121	128	133	96	108

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	-	-
Input power	kW	216	228	243	260	276	293	317	341	372	388	-	-
Cooling total input current	A	363	378	414	454	472	493	529	566	639	677	-	-
EER	W/W	3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	-	-
Water flow rate system side	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	-	-
Pressure drop system side	kPa	75	84	99	94	103	71	88	88	116	116	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	808	886	902	989	1003	1091	1177	1262	1359	1446	-	-
Input power	kW	43,4	48,2	48,2	53,0	53,0	57,8	62,6	67,5	72,3	77,1	-	-
Free cooling total input current	A	67,6	75,1	75,1	82,6	82,6	90,1	97,6	105,1	112,7	120,2	-	-
EER	W/W	18,64	18,38	18,72	18,65	18,92	18,86	18,78	18,71	18,80	18,75	-	-
Water flow rate system side	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	-	-
Pressure drop system side	kPa	117	124	145	140	154	116	132	132	166	165	-	-
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	-	-
Input power	kW	218	230	245	262	278	296	320	344	375	392	-	-
Cooling total input current	A	366	381	418	457	475	497	533	570	644	682	-	-
EER	W/W	3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	-	-
Water flow rate system side	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	-	-
Pressure drop system side	kPa	75	84	99	93	102	70	87	87	115	115	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	871	954	972	1066	1081	1176	1268	1360	1465	1558	-	-
Input power	kW	44,2	49,1	49,1	54,0	54,0	59,0	63,9	68,8	73,7	78,6	-	-
Free cooling total input current	A	68,8	76,5	76,5	84,1	84,1	91,8	99,4	107,0	114,7	122,3	-	-
EER	W/W	19,70	19,42	19,79	19,71	20,00	19,94	19,85	19,77	19,88	19,82	-	-
Water flow rate system side	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	-	-
Pressure drop system side	kPa	117	123	144	139	153	115	131	131	164	164	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - FN - PN

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	324	376	428	473	497	538	567	614	643	659	687	751	803
Input power	kW	74	88	99	109	116	124	134	142	152	157	163	174	184
Cooling total input current	A	132	154	172	184	192	206	222	235	252	265	280	297	313
EER	W/W	4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32	4,38
Water flow rate system side	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
Pressure drop system side	kPa	46	54	42	49	56	65	71	45	49	53	51	54	64
Cooling performances with free-cooling (2)														
Cooling capacity	kW	318	330	391	401	404	465	470	531	536	539	543	607	670
Input power	kW	7,9	7,9	9,5	9,5	9,5	11,1	11,1	12,7	12,7	12,7	12,7	14,3	15,9
Free cooling total input current	A	12	12	14	14	14	16	16	19	19	19	19	21	24
EER	W/W	39,96	41,57	41,02	42,00	42,41	41,76	42,22	41,75	42,17	42,36	42,67	42,46	42,16
Water flow rate system side	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
Pressure drop system side	kPa	67	81	66	78	87	93	102	72	79	84	84	87	95
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	323	374	426	471	494	535	564	611	640	656	683	746	799
Input power	kW	74	89	100	110	117	125	136	143	153	158	164	175	185
Cooling total input current	A	132	155	173	185	194	207	224	237	254	267	282	300	316
EER	W/W	4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26	4,32
Water flow rate system side	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
Pressure drop system side	kPa	45	53	42	49	55	64	70	44	49	52	50	54	63
Cooling performances with free-cooling (2)														
Cooling capacity	kW	337	352	417	427	431	495	501	566	572	575	579	648	715
Input power	kW	8,1	8,1	9,7	9,7	9,7	11,3	11,3	12,9	12,9	12,9	12,9	14,5	16,2
Free cooling total input current	A	12	12	14	14	14	17	17	19	19	19	19	21	24
EER	W/W	41,76	43,58	42,96	44,05	44,49	43,79	44,29	43,78	44,23	44,44	44,76	44,54	44,22
Water flow rate system side	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
Pressure drop system side	kPa	66	80	65	77	86	92	101	71	78	83	83	86	94

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	852	881	969	1033	1115	1198	1263	1329	-	-	-	-
Input power	kW	195	207	218	232	249	265	288	311	-	-	-	-
Cooling total input current	A	328	343	374	408	427	447	481	516	-	-	-	-
EER	W/W	4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	-	-	-	-
Water flow rate system side	l/h	146560	151590	166730	177640	191820	206010	217280	228590	-	-	-	-
Pressure drop system side	kPa	75	81	80	80	80	45	53	53	-	-	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	731	737	857	921	988	1056	1068	1079	-	-	-	-
Input power	kW	17,5	17,5	20,7	22,3	23,8	25,4	25,4	25,4	-	-	-	-
Free cooling total input current	A	26	26	31	33	35	38	38	38	-	-	-	-
EER	W/W	41,84	42,13	41,48	41,37	41,45	41,52	42,01	42,42	-	-	-	-
Water flow rate system side	l/h	146560	151590	166730	177640	191820	206010	217280	228590	-	-	-	-
Pressure drop system side	kPa	105	113	106	106	106	71	84	84	-	-	-	-
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	848	877	965	1028	1110	1192	1257	1322	-	-	-	-
Input power	kW	197	209	220	234	251	268	291	314	-	-	-	-
Cooling total input current	A	330	346	377	411	430	450	485	520	-	-	-	-
EER	W/W	4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	-	-	-	-
Water flow rate system side	l/h	145850	150820	165970	176870	190950	205020	216210	227390	-	-	-	-
Pressure drop system side	kPa	74	80	79	79	79	45	53	53	-	-	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	780	786	914	981	1053	1125	1139	1151	-	-	-	-
Input power	kW	17,8	17,8	21,0	22,6	24,2	25,9	25,9	25,9	-	-	-	-
Free cooling total input current	A	26	26	31	33	36	38	38	38	-	-	-	-
EER	W/W	43,88	44,20	43,48	43,37	43,45	43,52	44,06	44,51	-	-	-	-
Water flow rate system side	l/h	145850	150820	165970	176870	190950	205020	216210	227390	-	-	-	-
Pressure drop system side	kPa	104	112	105	105	105	70	84	84	-	-	-	-

(1) System side water heat exchanger 25°C/20°C; External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

ELECTRIC DATA

Size				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Maximum current (FLA)	FA-PA	(1)	A	204	226	251	257	273	290	306	335	355	380	405	428	440
	FE-PE	(1)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
	FU-PU	(1)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
	FN-PN	(1)	A	214	236	270	277	283	309	325	354	374	399	425	447	469
Peak current (LRA)	FA-PA	(1)	A	277	285	299	336	350	346	359	439	451	515	568	622	592
	FE-PE	(1)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
	FU-PU	(1)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
	FN-PN	(1)	A	287	295	318	355	360	366	378	458	471	535	588	641	621
Size				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data																
Maximum current (FLA)	FA-PA	(1)	A	473	497	538	570	590	620	668	701	831	863	933	1051	
	FE-PE	(1)	A	483	516	548	595	615	645	688	730	841	882	-	-	
	FU-PU	(1)	A	483	516	548	595	615	645	688	730	841	882	-	-	
	FN-PN	(1)	A	508	531	583	624	654	683	716	749	-	-	-	-	
Peak current (LRA)	FA-PA	(1)	A	601	625	680	710	846	886	965	958	902	932	1137	1205	
	FE-PE	(1)	A	611	644	690	735	871	911	984	986	911	951	-	-	
	FU-PU	(1)	A	611	644	690	735	871	911	984	986	911	951	-	-	
	FN-PN	(1)	A	636	659	724	764	910	949	1013	1006	-	-	-	-	

(1) Unit standard configuration without hydronic kit

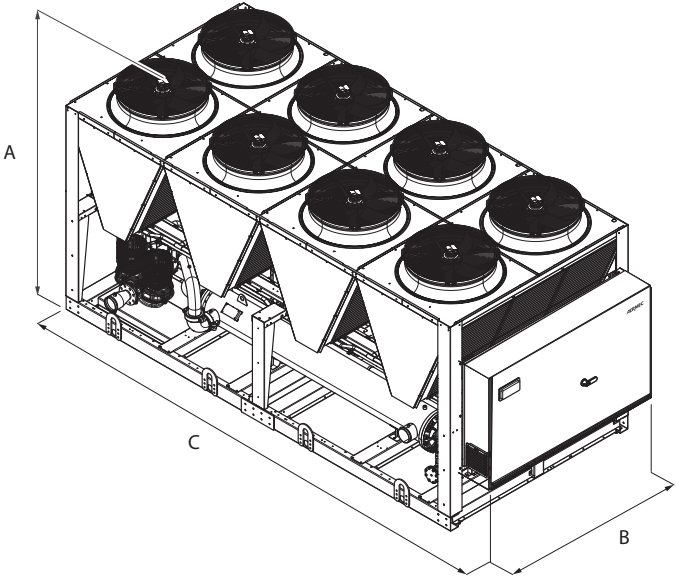
GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Compressors															
Compressors	All	Type	Screw												
Compressors / Circuit	All	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	All	Type	R134a												
System side heat exchanger															
Exchanger	All	Type	Shell&tube												
Exchanger	All	n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Fans															
Fans	All	Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	FA-PA	n°	8	8	8	8	10	10	10	12	12	12	12	14	14
	FE-PE	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	FU-PU	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	FN-PN	n°	10	10	12	12	12	14	14	16	16	16	16	18	20
Sound data calculated in cooling mode															
Sound power level (1)	FA-PA	dB(A)	97	97	97	97	98	98	98	98	98	99	99	100	101
	FE-PE	dB(A)	93	93	93	94	94	93	93	93	93	95	96	98	98
	FU-PU	dB(A)	97	97	98	98	98	99	99	99	99	99	100	101	102
	FN-PN	dB(A)	93	93	94	94	94	94	93	93	93	94	96	98	99

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Compressors															
Compressors	All	Type	Screw												
Compressors / Circuit	FA-PA	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3
	FE-PE	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3-3	3-3	-	-	-
	FU-PU	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3-3	3-3	-	-	-
	FN-PN	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	-	-	-	-	-
Refrigerant	All	Type	R134a												
System side heat exchanger															
Exchanger	All	Type	Shell&tube												
Exchanger	FA-PA	n°	1	1	1	1	1	1	1	1	2	2	2	2	2
	FE-PE	n°	1	1	1	1	1	1	1	1	2	2	-	-	-
	FU-PU	n°	1	1	1	1	1	2	2	2	2	2	-	-	-
	FN-PN	n°	1	1	2	2	2	2	2	2	-	-	-	-	-
Fans															
Fans	All	Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	FA-PA	n°	16	16	18	18	18	20	22	22	28	28	30	34	34
	FE-PE	n°	18	20	20	22	22	24	26	28	30	32	-	-	-
	FU-PU	n°	18	20	20	22	22	24	26	28	30	32	-	-	-
	FN-PN	n°	22	22	26	28	30	32	32	32	-	-	-	-	-
Sound data calculated in cooling mode															
Sound power level (1)	FA-PA	dB(A)	101	100	101	101	101	102	102	102	104	104	105	105	105
	FE-PE	dB(A)	98	96	97	97	99	100	100	99	99	99	-	-	-
	FU-PU	dB(A)	101	101	101	102	102	103	103	103	104	104	-	-	-
	FN-PN	dB(A)	98	97	97	97	99	100	100	99	-	-	-	-	-

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Dimensions and weights															
A	mm	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
		E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Dimensions and weights														
A	mm	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
		E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		N	13090	13090	15470	16660	17850	19040	19040	19040	-	-	-	-

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

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.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NSM-HWT-1402-9603-B

Air-water chiller with free-cooling glycol free

Cooling capacity 306 ÷ 1991 kW

- High efficiency also at partial loads
- Microchannel condenser technology
- Ideal in data center applications
- Water outlet temperatures up to 30°C
- Night mode function



DESCRIPTION

NSM chillers are designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

VERSIONS

- A** High Efficiency
- E** High efficiency low noise
- U** Very high efficiency
- N** Very high efficiency low noise

FEATURES

- Unit with 2 or 3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- An intermediate plate heat exchanger provides two circuits: a glycol circuit, where glycol is added to protect the chiller's coils from freezing, and the chilled water circuit without glycol.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.

- Standard differential pressure switch
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- Fans inverter
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.

CONTROL

Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

ACCESSORIES

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

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.

FB1: Air filter

MULTICHILLER_EVO: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

AVX: Spring anti-vibration mounts.

ACCESSORIES FACTORY FITTED ONLY

KRS: Evaporator trace heating

RIFNSM: Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).

GP: Anti-intrusion grids.

AK: ACOUSTIC KIT. This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

ACCESSORIES COMPATIBILITY

Size	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility

(x2) Indicates the amount to order

Evaporator trace heating

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
(1)	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
(1)	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS

(1) Accessories to be defined for compatibility

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

Power factor correction

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	RIFNSM1402	RIFNSM1602	RIFNSM1802	RIFNSM2002	RIFNSM2202	RIFNSM2352	RIFNSM2502	RIFNSM2652	RIFNSM2802	RIFNSM3002	RIFNSM3202	RIFNSM3402	RIFNSM3602

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
	RIFNSM3902	RIFNSM4202	RIFNSM4502	RIFNSM4802	RIFNSM5202	RIFNSM5602	RIFNSM6002	RIFNSM6402	RIFNSM6903	RIFNSM7203	RIFNSM8403	RIFNSM9603

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

Anti-intrusion grids

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
(1)	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
(1)	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP

(1) Accessories to be defined for compatibility

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

Acoustic kit

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
(2)	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
(2)	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK

(2) The accessory is only available for the "E/N" silenced versions

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

CONFIGURATOR

Field	Description
1,2,3	NSM
4,5,6,7	Size
	1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202
	3402-3602-3902-4202-4502-4802-5202-5602-6002-6402
	6903-7203-8403-9603
8	Operational limits
W	Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)
9	Model
B	Free cooling Glycol Free
G	Free cooling Glycol Free Plus (1)
10	Versions
A	High efficiency
E	Low noise high efficiency
U	Very high efficiency
N	Low noise very high efficiency

(1) The free cooling plus models can have coils only in options "OR" and "O"

Field	Description
11	Condensing coils/ Free cooling water coils
°	Aluminium microchannel/ Copper Aluminium
O	Painted aluminium microchannel/ Painted Aluminium Copper
R	Copper - Copper/Copper - Copper (1)
S	Copper - Thinned/Copper - Thinned (1)
V	Epoxy paint (only free cooling coil)/Epoxy paint (only free cooling coil) (1)
12	Fans
J	Inverter
13	Power supply
°	400V/3/50Hz
14-15	Integrated hydronic kit
O	Without hydronic kit

PERFORMANCE SPECIFICATIONS

NSMW - BA - GA

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
Input power	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
Cooling total input current	A	146	166	187	200	208	224	242	258	277	290	306	327	348
EER	W/W	3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,8	3,84	3,92	3,86
Water flow rate system side	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
Pressure drop system side	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110
Cooling performances with glycol-free (2)														
Cooling capacity	kW	303	276	281	292	360	363	367	437	441	454	456	541	542
Input power	kW	22,6	22,6	22,6	22,6	29,7	29,7	29,7	38,6	38,6	38,7	38,7	44,8	44,8
Free cooling total input current	A	36,1	36,1	36,1	36,1	47	47	47	61,5	61,5	61,7	61,7	71,2	71,2
EER	W/W	13,43	12,22	12,46	12,93	12,14	12,23	12,36	11,32	11,43	11,73	11,79	12,07	12,11
Water flow rate system side	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
Pressure drop system side	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
Input power	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
Cooling total input current	A	147	167	188	201	210	226	244	260	279	292	308	330	351
EER	W/W	3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
Water flow rate system side	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
Pressure drop system side	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108
Cooling performances with glycol-free (2)														
Cooling capacity	kW	314	287	293	305	377	380	384	459	463	478	481	570	572
Input power	kW	23	22,9	22,9	23	30,1	30,1	30,1	39,2	39,2	39,3	39,3	45,5	45,5
Free cooling total input current	A	36,6	36,6	36,6	36,6	47,7	47,7	47,7	62,3	62,3	62,5	62,5	72,1	72,1
EER	W/W	13,67	12,52	12,77	13,30	12,51	12,60	12,74	11,72	11,84	12,18	12,25	12,53	12,58
Water flow rate system side	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
Pressure drop system side	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling glycol free													
Cooling performance chiller operation (1)													
Cooling capacity	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
Input power	kW	216	228	244	260	281	295	319	343	373	388	442	512
Cooling total input current	A	362	377	416	453	478	494	531	567	646	683	740	854
EER	W/W	3,95	3,87	3,92	3,9	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
Water flow rate system side	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
Pressure drop system side	kPa	128	137	148	165	155	146	171	190	126	141	111	144
Cooling performances with glycol-free (2)													
Cooling capacity	kW	598	599	674	675	675	748	802	807	1038	1039	1134	1263
Input power	kW	49,8	49,8	55	55	55	60	64,9	64,9	84,7	84,7	93,7	103,6
Free cooling total input current	A	78,9	78,9	87,1	87,1	87,1	95	102,6	102,6	134,1	134,1	148,7	164,3
EER	W/W	12,03	12,04	12,26	12,28	12,28	12,46	12,36	12,43	12,26	12,27	12,1	12,18
Water flow rate system side	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
Pressure drop system side	kPa	128	137	148	165	155	146	171	190	126	141	111	144
Free-cooling glycol free Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
Input power	kW	218	230	247	262	284	298	322	346	377	392	447	517
Cooling total input current	A	365	381	420	456	482	498	536	571	652	688	747	861
EER	W/W	3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
Water flow rate system side	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
Pressure drop system side	kPa	127	136	147	164	153	144	170	188	125	140	110	143
Cooling performances with glycol-free (2)													
Cooling capacity	kW	628	629	708	709	709	785	839	844	1089	1090	1192	1325
Input power	kW	50,5	50,5	55,8	55,8	55,8	61,0	66,0	66,0	86,0	86,0	95,1	105,2
Free cooling total input current	A	80,0	80,0	88,3	88,3	88,3	96,4	104,1	104,1	136,0	136,0	150,8	166,6
EER	W/W	12,43	12,45	12,68	12,70	12,70	12,86	12,72	12,80	12,67	12,68	12,54	12,59
Water flow rate system side	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
Pressure drop system side	kPa	127	136	147	164	153	144	170	188	125	140	110	143

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - BE - GE

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	315	362	415	456	478	524	551	599	626	641	667	735	772
Input power	kW	75	91	101	112	120	127	138	145	156	161	169	178	192
Cooling total input current	A	134	158	175	189	199	210	227	240	258	272	288	303	325
EER	W/W	4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
Water flow rate system side	l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
Pressure drop system side	kPa	81	100	101	95	104	105	116	127	139	121	125	96	106
Cooling performances with glycol-free (2)														
Cooling capacity	kW	260	228	276	285	287	343	345	389	391	402	403	469	471
Input power	kW	10,6	10,6	13,4	13,5	13,5	19,2	19,2	21,9	21,9	22,1	22,1	23,9	23,9
Free cooling total input current	A	16,7	16,6	21,0	21,2	21,2	30,5	30,5	34,5	34,5	34,9	34,9	37,6	37,6
EER	W/W	24,39	21,44	20,58	21,09	21,21	17,84	17,94	17,79	17,87	18,15	18,22	19,61	19,67
Water flow rate system side	l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
Pressure drop system side	kPa	81	100	101	95	104	105	116	127	139	121	125	96	106
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
Input power	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
Cooling total input current	A	134	159	176	190	201	211	229	242	260	274	291	306	328
EER	W/W	4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
Water flow rate system side	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
Pressure drop system side	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104
Cooling performances with glycol-free (2)														
Cooling capacity	kW	270	237	288	298	300	358	360	406	408	419	421	491	492
Input power	kW	10,8	10,7	13,5	13,7	13,7	19,4	19,4	22,1	22,1	22,3	22,3	24,1	24,1
Free cooling total input current	A	16,8	16,8	21,2	21,4	21,4	30,8	30,8	34,8	34,8	35,2	35,2	37,9	37,9
EER	W/W	25,10	22,15	21,24	21,80	21,93	18,48	18,59	18,39	18,48	18,80	18,87	20,33	20,39
Water flow rate system side	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
Pressure drop system side	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling glycol free													
Cooling performance chiller operation (1)													
Cooling capacity	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	-	-
Input power	kW	202	210	228	241	260	275	296	318	350	364	-	-
Cooling total input current	A	339	348	388	421	443	460	493	526	601	631	-	-
EER	W/W	4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	-	-
Water flow rate system side	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	-	-
Pressure drop system side	kPa	121	135	142	152	170	81	128	110	119	123	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	515	578	588	633	634	693	742	788	880	924	-	-
Input power	kW	25,6	31,3	31,5	33,1	33,1	38,4	41,1	43,7	46,8	48,5	-	-
Free cooling total input current	A	40,1	48,8	49,1	51,6	51,6	61,1	65,0	69,0	73,4	75,9	-	-
EER	W/W	20,11	18,44	18,68	19,09	19,12	18,02	18,06	18,01	18,79	19,06	-	-
Water flow rate system side	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	-	-
Pressure drop system side	kPa	121	135	142	152	170	81	128	110	119	123	-	-
Free-cooling glycol free Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	-	-
Input power	kW	204	212	230	244	263	278	300	321	354	368	-	-
Cooling total input current	A	342	351	392	425	448	464	497	531	607	636	-	-
EER	W/W	4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	-	-
Water flow rate system side	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	-	-
Pressure drop system side	kPa	120	134	140	150	168	80	127	109	118	122	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	538	604	615	661	662	724	775	822	920	966	-	-
Input power	kW	25,8	31,6	31,7	33,4	33,4	38,8	41,4	44,1	46,8	48,9	-	-
Free cooling total input current	A	40,5	49,2	49,4	52,0	52,0	61,5	65,5	69,5	73,9	76,5	-	-
EER	W/W	20,80	19,11	19,38	19,78	19,80	18,67	18,70	18,64	19,65	19,74	-	-
Water flow rate system side	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	-	-
Pressure drop system side	kPa	120	134	140	150	168	80	127	109	118	122	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - BU - GU

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
Input power	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
Cooling total input current	A	148	170	192	204	212	229	244	263	279	291	305	326	345
EER	W/W	3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
Water flow rate system side	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
Pressure drop system side	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117
Cooling performances with glycol-free (2)														
Cooling capacity	kW	319	287	345	367	369	433	436	488	506	507	538	595	597
Input power	kW	23,6	23,5	29,6	31,5	31,5	38,6	38,6	44,5	44,7	44,7	44,8	49,8	49,8
Free cooling total input current	A	37,3	37,3	46,8	50,1	50,1	61,5	61,5	70,6	71,0	71,0	71,2	78,9	78,9
EER	W/W	13,52	12,20	11,67	11,64	11,72	11,22	11,30	10,96	11,31	11,35	12,01	11,96	12,00
Water flow rate system side	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
Pressure drop system side	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
Input power	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
Cooling total input current	A	149	171	194	205	214	231	246	265	281	294	308	328	347
EER	W/W	3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
Water flow rate system side	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
Pressure drop system side	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116
Cooling performances with glycol-free (2)														
Cooling capacity	kW	331	300	360	385	388	455	458	510	531	533	567	624	626
Input power	kW	23,9	23,9	30	32	32	39,2	39,2	45,1	45,4	45,4	45,5	50,5	50,5
Free cooling total input current	A	37,9	37,8	47,5	50,8	50,8	62,3	62,3	71,6	72,0	72,0	72,1	80,0	80,0
EER	W/W	13,81	12,56	11,98	12,04	12,13	11,61	11,69	11,30	11,70	11,73	12,47	12,36	12,40
Water flow rate system side	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
Pressure drop system side	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	-	-	-
Input power	kW	216	228	243	260	276	293	317	341	372	388	-	-	-
Cooling total input current	A	363	378	414	454	472	493	529	566	639	677	-	-	-
EER	W/W	3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	-	-	-
Water flow rate system side	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	-	-	-
Pressure drop system side	kPa	134	133	156	166	188	112	142	128	131	135	-	-	-
Cooling performances with glycol-free (2)														
Cooling capacity	kW	647	743	746	796	797	885	938	990	1126	1177	-	-	-
Input power	kW	54,7	63,8	63,8	68,7	68,7	79,0	84,0	89,0	98,2	103,1	-	-	-
Free cooling total input current	A	86,6	100,7	100,7	108,3	108,3	125,7	133,4	141,2	155,6	163,2	-	-	-
EER	W/W	11,83	11,65	11,69	11,60	11,61	11,20	11,17	11,13	11,46	11,41	-	-	-
Water flow rate system side	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	-	-	-
Pressure drop system side	kPa	134	133	156	166	188	112	142	128	131	135	-	-	-
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	-	-	-
Input power	kW	218	230	245	262	278	296	320	344	375	392	-	-	-
Cooling total input current	A	366	381	418	457	475	497	533	570	644	682	-	-	-
EER	W/W	3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	-	-	-
Water flow rate system side	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	-	-	-
Pressure drop system side	kPa	133	132	155	165	187	111	141	127	130	134	-	-	-
Cooling performances with glycol-free (2)														
Cooling capacity	kW	676	780	783	834	835	931	984	1036	1185	1236	-	-	-
Input power	kW	55,5	64,7	64,7	69,7	69,7	80,1	85,2	90,3	99,6	104,6	-	-	-
Free cooling total input current	A	87,8	102	102	109,8	109,8	127,3	135,2	143,1	157,6	165,4	-	-	-
EER	W/W	12,18	12,05	12,11	11,97	11,98	11,62	11,54	11,48	11,90	11,81	-	-	-
Water flow rate system side	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	-	-	-
Pressure drop system side	kPa	133	132	155	165	187	111	141	127	130	134	-	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - BN - GN

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	324	376	428	473	497	538	567	614	643	659	687	751	803
Input power	kW	74	88	99	109	116	124	134	142	152	157	163	174	184
Cooling total input current	A	132	154	172	184	192	206	222	235	252	265	280	297	313
EER	W/W	4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32	4,38
Water flow rate system side	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528	138643
Pressure drop system side	kPa	74	93	87	102	113	110	122	111	122	128	125	100	115
Cooling performances with glycol-free (2)														
Cooling capacity	kW	266	278	329	334	337	384	387	439	441	442	467	523	567
Input power	kW	12	14	19	19	20	22	22	24	24	24	24	29	31
Free cooling total input current	A	19,1	21,2	30,3	30,3	31,5	34,5	34,5	37,5	37,5	37,5	37,6	45,8	48,3
EER	W/W	21,73	20,57	17,29	17,53	16,94	17,58	17,68	18,41	18,50	18,55	19,52	17,83	18,28
Water flow rate system side	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528	138643
Pressure drop system side	kPa	74	93	87	102	113	110	122	111	122	128	125	100	115
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	323	374	426	471	494	535	564	611	640	656	683	746	799
Input power	kW	74	89	100	110	117	125	136	143	153	158	164	175	185
Cooling total input current	A	132	155	173	185	194	207	224	237	254	267	282	300	316
EER	W/W	4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26	4,32
Water flow rate system side	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821	137959
Pressure drop system side	kPa	74	92	86	101	112	109	121	110	121	127	123	99	113
Cooling performances with glycol-free (2)														
Cooling capacity	kW	279	292	346	351	354	404	407	461	463	464	491	549	595
Input power	kW	12,4	13,7	19,2	19,2	20	22,1	22,1	24,1	24,1	24,1	24,1	29,5	31,3
Free cooling total input current	A	19,2	21,4	30,5	30,5	31,7	34,8	34,8	37,8	37,8	37,8	37,9	46,1	48,6
EER	W/W	22,53	21,40	18,03	18,27	17,67	18,32	18,43	19,17	19,27	19,31	20,33	18,59	19,04
Water flow rate system side	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821	137959
Pressure drop system side	kPa	74	92	86	101	112	109	121	110	121	127	123	99	113

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling glycol free													
Cooling performance chiller operation (1)													
Cooling capacity	kW	852	881	969	1033	1115	1198	1263	1329	-	-	-	-
Input power	kW	195	207	218	232	249	265	288	311	-	-	-	-
Cooling total input current	A	328	343	374	408	427	447	481	516	-	-	-	-
EER	W/W	4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	-	-	-	-
Water flow rate system side	l/h	147047	152087	167278	178230	192448	206685	217997	229339	-	-	-	-
Pressure drop system side	kPa	117	125	101	93	102	75	92	92	-	-	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	617	618	727	770	828	880	887	889	-	-	-	-
Input power	kW	32,8	32,8	41,1	43,7	45,7	47,7	47,7	47,7	-	-	-	-
Free cooling total input current	A	51,0	51,0	65,0	69,0	72,0	75,0	75,0	75,0	-	-	-	-
EER	W/W	18,81	18,85	17,68	17,59	18,12	18,46	18,60	18,64	-	-	-	-
Water flow rate system side	l/h	147047	152087	167278	178230	192448	206685	217997	229339	-	-	-	-
Pressure drop system side	kPa	117	125	101	93	102	75	92	92	-	-	-	-
Free-cooling glycol free Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	848	877	965	1028	1110	1192	1257	1322	-	-	-	-
Input power	kW	197	209	220	234	251	268	291	314	-	-	-	-
Cooling total input current	A	330	346	377	411	430	450	485	520	-	-	-	-
EER	W/W	4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	-	-	-	-
Water flow rate system side	l/h	146331	151317	166517	177452	191576	205700	216918	228136	-	-	-	-
Pressure drop system side	kPa	116	124	100	92	101	74	91	91	-	-	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	647	649	764	809	870	925	932	934	-	-	-	-
Input power	kW	33,1	33,1	41,4	44,1	46,1	48,1	48,1	48,1	-	-	-	-
Free cooling total input current	A	51,4	51,4	65,5	69,5	72,5	75,5	75,5	75,5	-	-	-	-
EER	W/W	19,56	19,61	18,44	18,34	18,87	19,22	19,37	19,41	-	-	-	-
Water flow rate system side	l/h	146331	151317	166517	177452	191576	205700	216918	228136	-	-	-	-
Pressure drop system side	kPa	116	124	100	92	101	74	91	91	-	-	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling

(2) System side water heat exchanger 25°C; External air 12°C

ELECTRIC DATA

Size				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Maximum current (FLA)	BA,GA	(1)	A	206	228	253	265	289	306	324	362	384	400	415	449	472
	BE,GE	(1)	A	207	229	265	277	289	322	339	372	394	410	426	457	480
	BU,GU	(1)	A	207	229	265	280	292	322	339	372	395	410	426	457	480
	BN,GN	(1)	A	215	240	280	292	305	332	349	381	404	419	434	472	503
Peak current (LRA)	BA,GA	(1)	A	279	269	308	346	362	395	406	457	472	490	500	536	551
	BE,GE	(1)	A	279	269	317	354	362	403	415	466	480	499	509	545	560
	BU,GU	(1)	A	279	269	317	357	365	403	415	466	481	499	509	545	560
	BN,GN	(1)	A	288	280	332	369	378	414	425	475	490	508	518	559	583
Size				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data																
Maximum current (FLA)	BA,GA	(1)	A	504	527	569	602	619	645	698	737	877	910	976	1111	
	BE,GE	(1)	A	512	550	583	631	648	681	730	779	894	936	-	-	
	BU,GU	(1)	A	512	550	583	631	648	683	731	779	899	941	-	-	
	BN,GN	(1)	A	541	564	624	667	693	719	758	797	-	-	-	-	
Peak current (LRA)	BA,GA	(1)	A	590	611	643	665	857	883	963	990	866	888	1072	1204	
	BE,GE	(1)	A	598	628	651	687	879	906	980	1016	875	905	-	-	
	BU,GU	(1)	A	598	628	651	687	879	909	982	1016	880	910	-	-	
	BN,GN	(1)	A	627	642	692	723	924	945	1009	1034	-	-	-	-	

(1) Unit standar configuration without hydronic kit

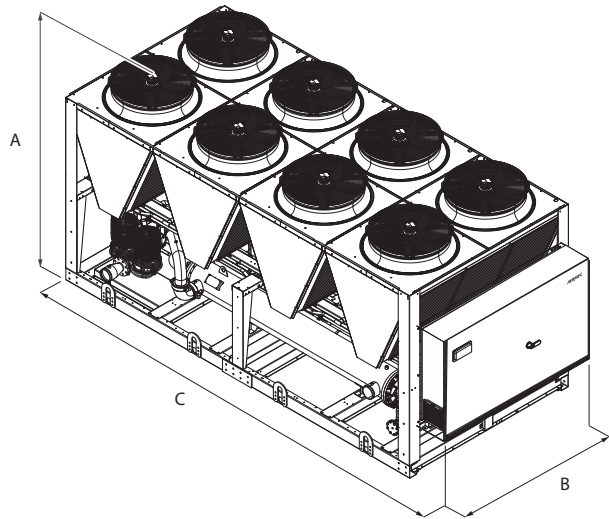
GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Compressors															
Compressors	All	type									Screw				
Compressors / Circuit	All	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	All	type	R134a												
System side heat exchanger															
Exchanger	All	type	Shell&tube												
Exchanger	All	n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Fans															
Fans	All	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	BA,GA	n°	8	8	8	8	10	10	10	12	12	12	12	14	14
	BE,GE	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	BU,GU	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	BN,GN	n°	10	10	12	12	12	14	14	16	16	16	16	18	20
Sound data calculated in cooling mode															
Sound power level (1)	BA,GA	dB(A)	97,1	97,1	97,4	97,3	98,1	98,0	97,8	98,4	98,4	98,7	99,3	100,4	100,8
	BE,GE	dB(A)	92,7	93,0	93,4	93,6	93,8	93,4	92,8	92,7	92,5	94,9	96,4	97,6	98,4
	BU,GU	dB(A)	97,3	97,4	98,4	98,3	98,4	98,8	98,7	99,1	99,1	99,5	100,1	101,2	101,6
	BN,GN	dB(A)	92,8	93,1	93,9	93,8	93,9	93,7	93,2	93,0	92,8	94,3	96,0	97,9	98,7

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Compressors															
Compressors	All	Type	Screw												
Compressors / Circuit	BA,GA	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3
	BE,GE	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	-	-	-
	BU,GU	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	-	-	-
	BN,GN	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	-	-	-	-	-
Refrigerant	All	Type	R134a												
System side heat exchanger															
Exchanger	All	Type	Shell&tube												
Exchanger	BA,GA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1
	BE,GE	n°	1	1	1	1	1	2	2	2	2	2	-	-	-
	BU,GU	n°	1	1	1	1	1	2	2	2	2	2	-	-	-
	BN,GN	n°	1	1	2	2	2	2	2	2	-	-	-	-	-
Fans															
Fans	All	Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	BA,GA	n°	16	16	18	18	18	20	22	22	28	28	30	34	34
	BE,GE	n°	18	20	20	22	22	24	26	28	30	32	-	-	-
	BU,GU	n°	18	20	20	22	22	24	26	28	30	32	-	-	-
	BN,GN	n°	22	22	26	28	30	32	32	32	-	-	-	-	-
Sound data calculated in cooling mode															
Sound power level (1)	BA,GA	dB(A)	100,8	100,4	100,8	100,9	101,4	102,3	102,3	101,9	103,7	103,8	105,0	104,8	104,8
	BE,GE	dB(A)	97,6	96,4	96,7	97,0	98,9	100,3	99,5	98,7	98,7	98,9	-	-	-
	BU,GU	dB(A)	101,5	101,4	101,4	101,8	102,3	103,2	103,1	102,9	104,0	104,3	-	-	-
	BN,GN	dB(A)	97,9	96,8	97,0	97,3	98,7	100,1	99,5	98,7	-	-	-	-	-

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Dimensions and weights															
A	mm	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
		E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Dimensions and weights														
A	mm	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
		E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		N	13090	13090	15470	16660	17850	19040	19040	19040	-	-	-	-

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

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.

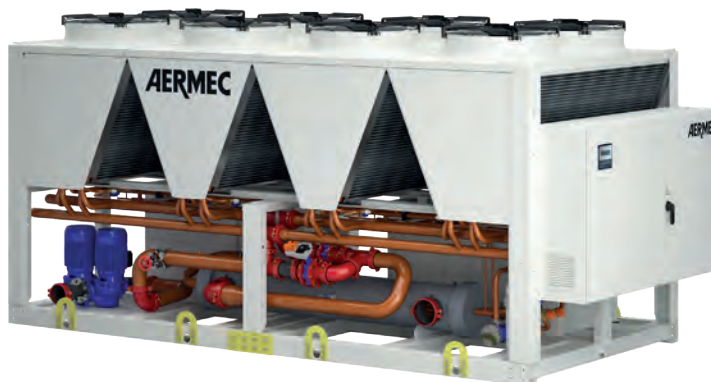
Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

NSMI 1251-6102 F

Air-water chiller with free-cooling

Cooling capacity 286 ÷ 1280 kW

- High efficiency also at partial loads
- Microchannel coil
- Low electrical consumption



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Outdoor units with high-efficiency screw compressors axial fans, microchannel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water.

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

VERSIONS

- A** High efficiency
- E** Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature. Unit can produce chilled water (up to -6 °C).

Units mono or dual-circuit

Unit with 1–2 refrigerant circuits. The single circuit units have the inverter compressor, while the dual-circuit have an asynchronous compressor on/off switch and an inverter, the combination provides both high efficiency at part load and full load

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

ACCESSORIES

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

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

Low noise version

Silenced versions feature a special compressor jacket which ensures a further noise reduction of approximately 4 dB.

CONTROL PCO⁵

Microprocessor adjustment, with 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 and the adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- 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.

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.

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.

FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

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.

PRV3: Allows you to control the chiller at a distance.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP_V: Anti-intrusion grid kit

KRS: Electric heater for the plate heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
AER485P1	A,E	*	*	*												
AER485P1 x n° 2 (1)	A,E				*	*	*	*	*	*	*	*	*	*	*	*
AERNET	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FB1	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3	A,E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) x Indicates the quantity of accessories to match.

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
A,E	GP4V	GP4V	GP5V	GP5V	GP6V	GP7V	GP7V	GP7V	GP8V	GP9V	GP10V	GP11V	GP11V	GP11V	GP11V

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

Antivibration - NSMI free-cooling

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00															
A	AVX991	AVX992	AVX993	AVX966	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990
E	AVX991	AVX992	AVX994	AVX966	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990

Antivibration - NSMI free-cooling plus

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00															
A	AVX991	AVX992	AVX993	AVX966	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990
E	AVX991	AVX992	AVX994	AVX966	AVX970	AVX995	AVX995	AVX999	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990

Heater exchangers

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
A	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	-	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
E	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24

The accessory cannot be fitted on the configurations indicated with -

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

CONFIGURATOR

Field	Description
1,2,3,4	NSMI
5,6,7,8	Size 1251, 1601, 1801, 2352, 2652, 2802, 3202, 3402, 3802, 4102, 4402, 4802, 5202, 5702, 6102
9	Operating yield
10	Model
F	Free-cooling
P	Free-cooling plus (1)
11	Heat recovery
°	Without heat recovery
D	With desuperheater (2)
12	Version
A	High efficiency
E	Silenced high efficiency
13	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
14	Fans
°	Standard
J	Inverter
15	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
16,17	Integrated hydronic kit
00	Without hydronic kit
	Kit with n° 1 pump (3)
PA	Pump A

Field	Description
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump
	Kit with 2 pumps
TF	Double pump F
TG	Double pump G
TH	Double pump H
TI	Double pump I
TJ	Double pump J

(1) The Free-Cooling Plus "P" models are only compatible with "" ed "O"

(2) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(3) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NSMI - free-cooling (FA/FE - PA/PE)

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Model: F																	
Cooling performance chiller operation (1)																	
Cooling capacity	A,E	kW	286,5	385,6	455,6	496,5	587,5	649,6	718,4	784,3	832,8	929,0	989,0	1096,3	1164,2	1208,4	1280,3
Input power	A,E	kW	96,6	126,7	157,5	177,7	206,3	221,2	244,7	272,7	280,5	324,3	343,8	368,4	417,3	436,6	477,9
Cooling total input current	A,E	A	166,0	212,0	261,0	309,0	356,0	381,0	417,0	456,0	470,0	547,0	580,0	644,0	692,0	728,0	761,0
EER	A,E	W/W	2,97	3,04	2,89	2,79	2,85	2,94	2,94	2,88	2,97	2,86	2,88	2,98	2,79	2,77	2,68
Water flow rate system side	A,E	l/h	49230	66245	78283	85309	100931	111607	123424	134748	143088	159614	169917	188349	200020	207622	219967
Pressure drop system side	A,E	kPa	52	78	75	48	67	68	76	46	54	68	79	80	90	94	107
Cooling performances with free-cooling (2)																	
Cooling capacity	A,E	kW	254,5	276,0	340,9	346,5	414,6	649,6	488,1	495,1	559,2	628,2	692,4	762,8	771,1	775,7	782,2
Input power	A,E	kW	15,0	15,0	18,7	18,7	22,5	26,2	26,2	26,2	30,0	33,7	37,5	41,2	41,2	41,2	41,2
Free cooling total input current	A,E	A	26,0	25,0	31,0	33,0	39,0	45,0	45,0	44,0	50,0	57,0	63,0	72,0	68,0	69,0	66,0
EER	A,E	W/W	19,97	18,41	18,19	18,49	18,43	18,22	18,60	18,87	18,65	18,62	18,47	18,50	18,70	18,81	18,97
Water flow rate system side	A,E	l/h	49230	66245	78283	85309	100931	111607	123424	134748	143088	159614	169917	188349	200020	207622	219967
Pressure drop system side	A,E	kPa	80	121	128	88	109	109	124	94	99	108	125	127	143	157	169
Model: P																	
Cooling performance chiller operation (1)																	
Cooling capacity	A,E	kW	285,5	383,5	453,4	493,5	584,0	646,4	714,7	778,5	827,8	923,5	983,6	1090,1	1156,6	1200,5	1270,3
Input power	A,E	kW	97,4	127,8	158,9	179,7	208,6	223,4	247,5	275,8	283,4	327,8	347,4	372,4	421,9	441,5	483,8
Cooling total input current	A,E	A	168,0	214,0	263,0	312,0	360,0	385,0	421,0	461,0	474,0	553,0	585,0	644,0	692,0	728,0	761,0
EER	A,E	W/W	2,93	3,00	2,85	2,75	2,80	2,89	2,89	2,82	2,92	2,82	2,83	2,93	2,74	2,72	2,63
Water flow rate system side	A,E	l/h	49048	65887	77903	84789	100332	111060	122801	133758	142233	158667	168998	187289	198712	206254	218254
Pressure drop system side	A,E	kPa	51	78	74	47	67	67	75	45	53	67	79	79	89	92	105
Cooling performances with free-cooling (2)																	
Cooling capacity	A,E	kW	271,8	296,0	365,5	371,4	444,5	512,7	523,2	530,1	599,3	673,3	742,3	817,7	826,2	830,9	837,1
Input power	A,E	kW	15,2	15,2	19,0	19,0	22,8	26,7	26,7	26,7	30,5	34,3	38,1	41,9	41,9	41,9	41,9
Free cooling total input current	A,E	A	26,0	25,0	32,0	33,0	39,0	46,0	45,0	45,0	51,0	58,0	64,0	72,0	69,0	69,0	66,0
EER	A,E	W/W	17,84	19,43	19,19	19,50	19,45	19,23	19,63	19,89	19,67	19,64	19,49	19,52	19,72	19,83	19,98
Water flow rate system side	A,E	l/h	49048	65887	77903	84789	100332	111060	122801	133758	142233	158667	168998	187289	198712	206254	218254
Pressure drop system side	A,E	kPa	80	120	127	87	108	108	123	93	98	107	123	125	141	155	166

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Model: F																	
SEPR - (EN14825: 2018) High temperature with standard fans (1)																	
SEPR	A,E	W/W	6,95	6,32	6,23	6,60	6,73	7,06	6,85	6,65	6,98	6,74	6,83	7,24	7,11	7,28	7,05
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																	
SEPR	A,E	W/W	6,95	6,32	6,23	6,60	6,73	7,06	6,85	6,65	6,98	6,74	6,83	7,24	7,11	7,28	7,05
Model: P																	
SEPR - (EN14825: 2018) High temperature with standard fans (1)																	
SEPR	A,E	W/W	7,02	6,39	6,31	6,69	6,83	7,19	6,93	6,69	7,06	6,82	6,93	7,30	7,15	7,31	7,05
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																	
SEPR	A,E	W/W	7,02	6,39	6,31	6,69	6,83	7,19	6,93	6,69	7,06	6,82	6,93	7,30	7,15	7,31	7,05

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Electric data																	
Maximum current (FLA)	A,E	A	259,9	299,9	388,4	452,7	485,9	534,4	534,4	582,4	670,9	727,4	774,9	874,2	917,2	1002,2	1036,2
Peak current (LRA)	A,E	A	59,9	59,9	68,4	582,4	617,9	666,4	666,4	790,4	878,9	1008,4	1080,0	1180,2	1335,2	1420,2	1532,2

GENERAL TECHNICAL DATA

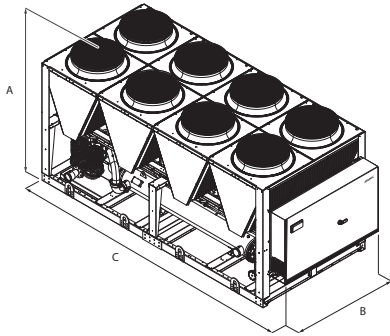
Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Compressor																	
Type	A,E	type	Screw														
Compressor regulation	A,E	Type	I	I	I	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off
Number	A,E	no.	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E	no.	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type	R134a														
System side heat exchanger																	
Type	A,E	type	Shell and tube														
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections																	
Connections (in/out)	A,E	Type	Grooved joints														
Sizes (in/out)	A,E	Ø	5"	6"	6"	6"	6"	6"	6"	8"	8"	8"	8"	10"	10"	10"	10"
Fan																	
Type	A,E	type	Axial														
Fan motor	A,E	type	Asynchronous with phase cut														
Number	A,E	no.	8	8	10	10	12	14	14	14	16	18	20	22	22	22	22
Air flow rate	A,E	m³/h	109600	109600	137000	137000	164400	191800	191800	191800	219200	146600	274000	301400	301400	301400	301400

Sound data

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Sound data calculated in cooling mode (1)																	
Sound power level	A	dB(A)	98,1	99,2	99,4	99,4	99,7	100,7	100,7	101,1	101,2	101,3	101,9	103,6	103,8	103,8	103,9
	E	dB(A)	94,2	96,0	96,3	95,7	96,2	96,6	96,6	97,8	97,9	98,3	98,6	100,2	100,2	100,2	100,3

(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			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Dimensions and weights																	
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	4760	4760	5950	6400	7140	8330	8330	8330	9520	10710	11900	13090	13090	13090	13090
Weight NSMI free-cooling																	
Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00																	
Dimensions and weights																	
Empty weight	A	kg	4220	4670	5207	6669	7211	7767	7858	8507	9106	9983	10543	12125	12214	12244	12318
	E	kg	4522	4972	5508	7272	7815	8371	8462	9110	9709	10586	11146	12963	13053	13083	13156
Weight NSMI free-cooling plus																	
Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00																	
Dimensions and weights																	
Empty weight	A	kg	4327	4777	5340	6803	7404	7992	8083	8731	9363	10272	10864	12478	12567	12597	12671
	E	kg	4629	5079	5642	7406	8007	8596	8687	9335	9966	10875	11467	13316	13406	13436	13510

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.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

TBA 1300-3350 F

Air-water chiller with free-cooling

Cooling capacity 317,2 ÷ 1223,6 kW



- High efficiency also at partial loads
- Microchannel coil
- Low peak current (only 6 Amps!)
- Evaporator with low refrigerant charge
- Available also R513A (XP10) refrigerant gas



DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.

These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.

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

VERSIONS

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

Units mono or dual-circuit

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

Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

Compressor features:

- Operates without oil as bearings are magnetic levitation type
- Continuous load modulation by varying rpm (from 30% to 100%)
- Low peak currents (only 6 Amps!)

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO⁵

Microprocessor adjustment, with 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 and the adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- 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.

CONFIGURATOR

Field	Description
1,2,3	TBA
4,5,6,7	Size 1300, 1350, 2300, 2325, 2350, 3300, 3320, 3340, 3350
8	Model
F	Free-cooling
P	Free-cooling plus (1)
9	Heat recovery
°	Without heat recovery
10	Version
A	High efficiency
E	Silenced high efficiency
11	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
12	Fans
J	Inverter
13	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
14,15	Integrated hydronic kit
00	Without hydronic kit
	Kit with n° 1 pump (2)
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump
	Kit with inverter pump to fixed speed

Field	Description
IA	Pump A equipped with inverter device to work at fixed speed
IB	Pump B equipped with inverter device to work at fixed speed
IC	Pump C equipped with inverter device to work at fixed speed
ID	Pump D equipped with inverter device to work at fixed speed
IE	Pump E equipped with inverter device to work at fixed speed
IF	Pump F equipped with inverter device to work at fixed speed
IG	Pump G equipped with inverter device to work at fixed speed
IH	Pump H equipped with inverter device to work at fixed speed
II	Pump I equipped with inverter device to work at fixed speed
IJ	Pump J equipped with inverter device to work at fixed speed
	Kit with n°1 pump + stand-by pump both equipped with inverter device to work at fixed speed
JA	Pump A + stand-by pump, both equipped with inverter device to work at fixed speed
JB	Pump B + stand-by pump, both equipped with inverter device to work at fixed speed
JC	Pump C + stand-by pump, both equipped with inverter device to work at fixed speed
JD	Pump D + stand-by pump, both equipped with inverter device to work at fixed speed
JE	Pump E + stand-by pump, both equipped with inverter device to work at fixed speed
JF	Pump F + stand-by pump, both equipped with inverter device to work at fixed speed
JG	Pump G + stand-by pump, both equipped with inverter device to work at fixed speed
JH	Pump H + stand-by pump, both equipped with inverter device to work at fixed speed
JI	Pump I + stand-by pump, both equipped with inverter device to work at fixed speed
JJ	Pump J + stand-by pump, both equipped with inverter device to work at fixed speed
	Kit with double pump both equipped with inverter device to work at fixed speed
KF	Double pump F with inverter device to work at fixed speed
KG	Double pump G with inverter device to work at fixed speed
KH	Double pump H with inverter device to work at fixed speed
KI	Double pump I with inverter device to work at fixed speed
KJ	Double pump J with inverter device to work at fixed speed
	Kit with double pumps
TF	Double pump F
TG	Double pump G
TH	Double pump H
TI	Double pump I
TJ	Double pump J
16	Refrigerant gas
°	R134a
G	R513A (XP10)

(1) The Free-Cooling Plus "P" models are only compatible with "°" and "0"

(2) For all configurations including pump J please contact the factory.

ACCESSORIES

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

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.

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.

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP_T: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350
AER485P1	A,E	*	*	*	*	*	*	*	*	*
AER485P1 x n° 2 (1)	A,E	*	*	*	*	*	*	*	*	*
AERNET	A,E	*	*	*	*	*	*	*	*	*
MULTICHILLER_EVO	A,E	*	*	*	*	*	*	*	*	*
PGD1	A,E	*	*	*	*	*	*	*	*	*

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350
A,E	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

Anti-intrusion grid

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350
A,E	GP3T	GP4T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T	GP11T

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

PERFORMANCE SPECIFICATIONS

Size	1300	1350	2300	2325	2350	3300	3320	3340	3350
------	------	------	------	------	------	------	------	------	------

Model: F

Cooling performance chiller operation (1)

Cooling capacity	A,E	kW	317,2	419,2	634,5	736,4	838,4	934,7	1065,0	1149,0	1223,6
Input power	A,E	kW	91,6	121,8	182,8	214,3	244,4	267,3	311,2	337,8	365,9
Cooling total input current	A,E	A	147,5	198,3	295,0	345,8	396,7	427,5	498,3	559,2	604,2
EER	A,E	W/W	3,46	3,44	3,47	3,44	3,43	3,50	3,42	3,40	3,34
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	210235
Pressure drop system side	A,E	kPa	65	32	70	54	45	69	72	66	52

Cooling performances with free-cooling (2)

Cooling capacity	A,E	kW	297,2	395,5	594,4	692,7	791,1	888,3	994,1	1085,0	1100,1
Input power	A,E	kW	11,3	15,0	22,5	26,3	30,0	33,8	37,5	41,3	41,3
Free cooling total input current	A,E	A	17,5	23,3	35,0	40,8	46,7	52,5	58,3	64,2	64,2
EER	A,E	W/W	26,41	26,36	26,41	26,38	26,36	26,31	26,50	26,30	26,66
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	210235
Pressure drop system side	A,E	kPa	118	78	130	103	99	127	138	117	109

Model: P

Cooling performance chiller operation (1)

Cooling capacity	A,E	kW	317,2	419,2	634,5	736,4	838,4	934,7	1065,0	1149,0	1206,6
Input power	A,E	kW	93,1	123,9	185,8	217,9	248,6	271,6	316,4	343,6	366,0
Cooling total input current	A,E	A	147,9	198,8	295,7	346,7	397,6	428,6	499,6	560,5	605,5
EER	A,E	W/W	3,41	3,38	3,42	3,38	3,37	3,44	3,37	3,34	3,30
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	207315
Pressure drop system side	A,E	kPa	65	32	70	54	45	69	72	66	50

Cooling performances with free-cooling (2)

Cooling capacity	A,E	kW	319,4	425,1	638,8	744,5	850,2	954,8	1068,2	1166,2	1181,8
Input power	A,E	kW	11,5	15,3	23,0	26,8	30,7	34,5	38,4	42,2	42,2
Free cooling total input current	A,E	A	17,9	18,8	35,7	36,7	37,6	53,6	44,6	65,5	80,5
EER	A,E	W/W	27,76	27,71	27,76	27,73	27,71	27,66	27,85	27,64	28,01
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	207315
Pressure drop system side	A,E	kPa	114	74	126	99	95	123	134	113	102

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size	1300	1350	2300	2325	2350	3300	3320	3340	3350
------	------	------	------	------	------	------	------	------	------

Model: F

SEER - (EN14825:2018) 12/7 with inverter fans (1)

SEER	A,E	W/W	5,06	5,14	5,21	5,17	5,30	5,40	5,32	5,26	5,23
Seasonal efficiency	A,E	%	199,3%	202,7%	205,5%	203,6%	208,8%	212,8%	209,6%	207,2%	206,1%

SEPR - (EN14825: 2018) High temperature with inverter fans (2)

SEPR	A,E	W/W	8,65	8,51	8,79	8,32	8,53	9,04	9,34	8,89	8,58
------	-----	-----	------	------	------	------	------	------	------	------	------

Model: P

SEER - (EN14825:2018) 12/7 with inverter fans (1)

SEER	A,E	W/W	4,98	5,06	5,14	5,09	5,21	5,32	5,11	5,18	5,17
Seasonal efficiency	A,E	%	196,3%	199,4%	202,5%	200,4%	205,5%	209,7%	201,2%	204,0%	203,7%

SEPR - (EN14825: 2018) High temperature with inverter fans (2)

SEPR	A,E	W/W	8,91	8,45	8,88	8,53	8,65	9,18	8,99	9,06	8,81
------	-----	-----	------	------	------	------	------	------	------	------	------

(1) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Electric data											
Maximum current (FLA)	A,E	A	165,0	249,0	329,0	413,0	498,0	493,0	577,0	737,0	737,0
Peak current (LRA)	A,E	A	36,0	45,0	210,0	305,0	315,0	384,0	479,0	575,0	575,0

GENERAL TECHNICAL DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Compressor											
Type	A,E	type					Centrifugal				
Compressor regulation	A,E	Type					Inverter				
Number	A,E	no.	1	1	2	2	2	3	3	3	3
Circuits	A,E	no.	1	1	1	2	1	1	2	1	1
Refrigerant	A,E	type					R134a				
Refrigerant charge	A,E	kg	81,5	165,7	163,0	253,8	295,8	275,2	317,2	327,9	397,9
System side heat exchanger											
Type	A,E	type					Shell and tube				
Number	A,E	no.	1	1	1	1	1	1	1	1	1
Hydraulic connections											
Connections (in/out)	A,E	Type					Grooved joints				
Size (in)	A,E	Ø	3"	4"	4"	5"	5"	5"	5"	6"	6"
Size (out)	A,E	Ø	3"	4"	4"	5"	5"	5"	5"	6"	6"
Sound data calculated in cooling mode (1)											
Sound power level	A	dB(A)	88,3	90,0	91,3	92,8	93,1	93,1	94,1	95,5	95,5
	E	dB(A)	82,3	84,0	85,3	86,8	87,1	87,1	88,1	89,5	89,5
Sound pressure level (10 m)	A	dB(A)	56,1	57,6	58,7	60,0	60,2	60,1	61,0	62,3	62,3
	E	dB(A)	50,1	51,6	52,7	54,0	54,2	54,1	55,0	56,3	56,3

(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).

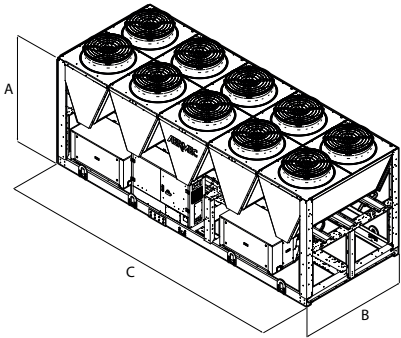
General data - fans (F model)

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Fan											
Type	A,E	type					Axial				
Fan motor	A,E	type					Inverter				
Number	A,E	no.	6	8	12	14	16	18	20	22	22
Air flow rate	A,E	m³/h	93180	124240	186360	217420	248480	279540	310600	341660	341660

General data - fans (P model)

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Fan											
Type	A,E	type					Axial				
Fan motor	A,E	type					Inverter				
Number	A,E	no.	6	8	12	14	16	18	20	22	22
Air flow rate	A,E	m³/h	88680	118240	177360	206920	236480	266040	295600	325160	325160

DIMENSIONS



Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Dimensions and weights											
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	3570	4760	7140	8330	9520	10710	11900	13090	13090

Model F

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Integrated hydronic kit: 00											
Weights											
Empty weight	A	kg	3290	4330	5860	7050	8020	8490	9820	10310	10670
	E	kg	3370	4440	6030	7250	8240	8740	10100	10610	10970
Weight functioning	A	kg	3570	4720	6380	7680	8790	9270	10720	11270	11710
	E	kg	3650	4830	6550	7880	9010	9520	11000	11570	12010

Model P

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Integrated hydronic kit: 00											
Weights											
Empty weight	A	kg	3380	4460	6050	7270	8270	8780	10140	10650	11020
	E	kg	3470	4570	6220	7470	8490	9020	10410	10960	11320
Weight functioning	A	kg	3700	4910	6650	8000	9150	9680	11180	11760	12220
	E	kg	3790	5020	6820	8200	9370	9920	11450	12070	12520

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.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

TBG 1230-4310 F

Air-water chiller with free-cooling

Cooling capacity 238 ÷ 1110 kW

- HFO R1234ze refrigerant gas
- High efficiency also at partial loads
- Microchannel coil
- Low peak current (only 6 Amps!)
- Evaporator with low refrigerant charge



DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.

These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.

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

VERSIONS

A High efficiency

E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

Units mono or dual-circuit

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

Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

Compressor features:

- Operates without oil as bearings are magnetic levitation type
- Continuous load modulation by varying rpm (from 30% to 100%)
- Low peak currents (only 6 Amps!)

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:

da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;

with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

CONTROL PCO⁵

Microprocessor adjustment, with 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 and the adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- 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.

CONFIGURATOR

Field	Description
1,2,3	TBG
4,5,6,7	Size 1230, 1310, 2230, 2270, 2310, 3270, 3280, 3310, 4270, 4310
8	Model
F	Free-cooling
P	Free-cooling plus (1)
9	Heat recovery
°	Without heat recovery
10	Version
A	High efficiency
E	Silenced high efficiency
11	Coils / free-cooling coils
°	Alluminium microchannel / Copper - aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted aluminium / Copper-painted aluminium
12	Fans
J	Inverter
13	Power supply
°	400V ~ 3 50Hz with magnet circuit breakers
14,15	Integrated hydronic kit
00	Without hydronic kit
	Kit with n° 1 pump (2)
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump

Field	Description
	Kit with inverter pump to fixed speed
IA	Pump A equipped with inverter device to work at fixed speed
IB	Pump B equipped with inverter device to work at fixed speed
IC	Pump C equipped with inverter device to work at fixed speed
ID	Pump D equipped with inverter device to work at fixed speed
IE	Pump E equipped with inverter device to work at fixed speed
IF	Pump F equipped with inverter device to work at fixed speed
IG	Pump G equipped with inverter device to work at fixed speed
IH	Pump H equipped with inverter device to work at fixed speed
II	Pump I equipped with inverter device to work at fixed speed
IJ	Pump J equipped with inverter device to work at fixed speed
	Kit with n°1 pump + stand-by pump both equipped with inverter device to work at fixed speed
JA	Pump A + stand-by pump, both equipped with inverter device to work at fixed speed
JB	Pump B + stand-by pump, both equipped with inverter device to work at fixed speed
JC	Pump C + stand-by pump, both equipped with inverter device to work at fixed speed
JD	Pump D + stand-by pump, both equipped with inverter device to work at fixed speed
JE	Pump E + stand-by pump, both equipped with inverter device to work at fixed speed
JF	Pump F + stand-by pump, both equipped with inverter device to work at fixed speed
JG	Pump G + stand-by pump, both equipped with inverter device to work at fixed speed
JH	Pump H + stand-by pump, both equipped with inverter device to work at fixed speed
JI	Pump I + stand-by pump, both equipped with inverter device to work at fixed speed
JJ	Pump J + stand-by pump, both equipped with inverter device to work at fixed speed
	Kit with double pump both equipped with inverter device to work at fixed speed
KF	Double pump F with inverter device to work at fixed speed
KG	Double pump G with inverter device to work at fixed speed
KH	Double pump H with inverter device to work at fixed speed
KI	Double pump I with inverter device to work at fixed speed
KJ	Double pump J with inverter device to work at fixed speed
	Kit with double pumps
TF	Double pump F
TG	Double pump G
TH	Double pump H
TI	Double pump I
TJ	Double pump J

(1) The Free-Cooling Plus "P" models are only compatible with "°" and "0"

(2) For all configurations including pump J please contact the factory.

ACCESSORIES

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

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.

AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.

AER485P1 x n° 4: RS-485 interface for supervision systems with MODBUS protocol.

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.

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

AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP_T: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
AER485P1	A,E	*	*								
AER485P1 x n° 2 (1)	A,E			*	*	*					
AER485P1 x n° 3 (1)	A,E						*	*	*	*	
AER485P1 x n° 4 (1)	A,E										*
AERNET	A,E	*	*	*	*	*	*	*	*	*	*
PGD1	A,E	*	*	*	*	*	*	*	*	*	*

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
A,E	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

Anti-intrusion grid

Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
A,E	GP3T	GP4T	GP5T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T	GP11T

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

PERFORMANCE SPECIFICATIONS

Size	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
------	------	------	------	------	------	------	------	------	------	------

Model: F

Cooling performance chiller operation (1)

Cooling capacity	A,E	kW	237,9	328,6	453,2	526,8	623,2	730,8	798,8	907,5	1019,7	1110,3
Input power	A,E	kW	68,6	95,3	130,6	153,1	181,1	211,4	231,7	260,0	294,0	328,1
Cooling total input current	A,E	A	112,5	158,3	214,2	255,0	300,8	346,7	387,5	433,3	489,2	549,2
EER	A,E	W/W	3,47	3,45	3,47	3,44	3,44	3,46	3,45	3,49	3,47	3,38
Water flow rate system side	A,E	l/h	40879	56452	77865	90518	107064	125557	137237	155924	175196	190769
Pressure drop system side	A,E	kPa	48	51	45	54	50	55	54	63	46	56

Cooling performances with free-cooling (2)

Cooling capacity	A,E	kW	275,5	371,6	478,0	568,6	665,9	766,4	855,5	956,3	1057,8	1079,5
Input power	A,E	kW	11,3	15,0	18,8	22,5	26,3	30,0	33,8	37,5	41,3	41,3
Free cooling total input current	A,E	A	17,5	23,3	29,2	35,0	40,8	46,7	52,5	58,3	64,2	64,2
EER	A,E	W/W	24,49	24,77	25,49	25,27	25,36	25,54	25,34	25,50	25,64	26,16
Water flow rate system side	A,E	l/h	40879	56452	77865	90518	107064	125557	137237	155924	175196	190769
Pressure drop system side	A,E	kPa	81	93	86	97	87	97	98	113	88	105

Model: P

Cooling performance chiller operation (1)

Cooling capacity	A,E	kW	237,9	328,6	453,2	526,8	623,1	730,8	798,8	907,5	1019,7	1110,3
Input power	A,E	kW	69,6	96,9	132,6	155,8	184,3	214,7	235,6	265,7	296,9	337,7
Cooling total input current	A,E	A	112,5	158,3	214,2	255,0	300,8	346,7	387,5	433,3	489,2	549,2
EER	A,E	W/W	3,42	3,39	3,42	3,38	3,38	3,40	3,39	3,42	3,43	3,29
Water flow rate system side	A,E	l/h	40879	56452	77865	90518	107064	125557	137237	155924	175196	190769
Pressure drop system side	A,E	kPa	48	51	45	54	50	55	54	63	46	56

Cooling performances with free-cooling (2)

Cooling capacity	A,E	kW	295,4	398,2	514,2	610,9	714,2	823,8	919,0	1029,7	1136,1	1160,9
Input power	A,E	kW	11,5	15,4	19,2	23,0	26,9	30,7	34,5	38,3	42,2	42,2
Free cooling total input current	A,E	A	17,5	23,3	29,2	35,0	40,8	46,7	52,5	58,3	64,2	64,2
EER	A,E	W/W	25,70	25,90	26,80	26,50	26,60	26,90	26,60	26,90	26,90	27,50
Water flow rate system side	A,E	l/h	40879	56452	77864	90517	107064	125557	137236	155924	175196	190768
Pressure drop system side	A,E	kPa	78	91	83	94	84	94	95	110	84	101

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / * °C; External air 2 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Model: F												
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A,E	W/W	5,40	5,47	5,72	5,35	5,72	5,53	5,64	5,67	5,66	5,49
Seasonal efficiency	A,E	%	213,1%	215,7%	225,9%	210,9%	225,8%	218,0%	222,6%	223,7%	223,4%	216,4%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A,E	W/W	9,45	9,36	9,37	8,49	9,15	9,31	9,45	9,50	9,47	9,13
Model: P												
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A,E	W/W	5,33	5,58	5,65	5,27	5,63	5,45	5,56	5,56	5,63	5,34
Seasonal efficiency	A,E	%	210,3%	220,0%	222,8%	207,6%	222,2%	214,9%	219,2%	219,3%	222,3%	210,7%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A,E	W/W	9,36	9,24	9,27	8,55	9,21	9,34	9,35	9,35	9,43	8,93

(1) Calculation performed with FIXED/VARIABLE water flow rate and FIXED/VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Electric data												
Maximum current (FLA)	A,E	A	125,0	189,0	239,0	304,0	368,0	418,0	538,0	547,0	597,0	707,0
Peak current (LRA)	A,E	A	36,0	45,0	161,0	230,0	239,0	355,0	424,0	433,0	549,0	608,0

GENERAL TECHNICAL DATA

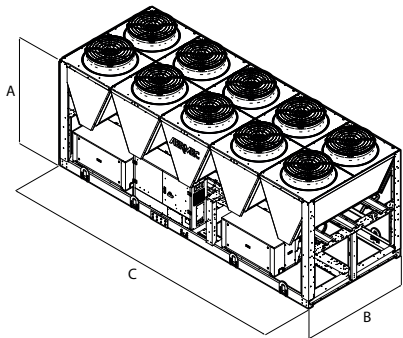
Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Compressor												
Type	A,E	type	Centrifugal									
Compressor regulation	A,E	Type	Inverter									
Number	A,E	no.	1	1	2	2	2	3	3	3	4	4
Circuits	A,E	no.	1	1	1	2	1	2	1	1	2	2
Refrigerant	A,E	type	R1234ze									
Refrigerant charge	A,E	kg	81,5	120,1	152,3	187,1	197,8	264,5	275,2	285,9	327,9	327,9
System side heat exchanger												
Type	A,E	type	Shell and tube									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	A,E	Type	Grooved joints									
Size (in)	A,E	Ø	3"	3"	4"	4"	5"	5"	5"	5"	6"	6"
Size (out)	A,E	Ø	3"	3"	4"	4"	5"	5"	5"	5"	6"	6"
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	86,3	88,9	88,8	90,5	91,7	91,6	93,1	93,3	93,3	94,2
	E	dB(A)	83,3	85,9	85,8	87,5	88,7	88,6	90,1	90,3	90,3	91,2
Sound pressure level (10 m)	A	dB(A)	54,1	56,5	56,3	57,9	58,9	58,7	60,1	60,2	60,1	61,0
	E	dB(A)	51,1	53,5	53,3	54,9	55,9	55,7	57,1	57,2	57,1	58,0

(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).

General data - fans

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Model: F												
Inverter fan												
Type	A,E	type	Axial									
Fan motor	A,E	type	Inverter									
Number	A,E	no.	6	8	10	12	14	16	18	20	22	22
Air flow rate	A,E	m³/h	93150	124200	155250	186300	217350	248400	279450	310500	341550	341550
Model: P												
Inverter fan												
Type	A,E	type	Axial									
Fan motor	A,E	type	Inverter									
Number	A,E	no.	6	8	10	12	14	16	18	20	22	22
Air flow rate	A,E	m³/h	88800	118400	148000	177600	207200	236800	266400	296000	325600	325600

DIMENSIONS



Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Dimensions and weights												
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	3570	4760	5950	7140	8330	9520	10710	11900	13090	13090

Model F

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	3250	4110	5220	6180	6770	8130	8720	9400	10960	11220
	E	kg	3330	4220	5360	6350	6960	8350	8960	9670	11270	11520
Weight functioning	A	kg	3510	4450	5630	6700	7360	8820	9500	10250	11920	12190
	E	kg	3590	4560	5770	6870	7550	9040	9740	10520	12230	12490

Model P

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	3340	4240	5380	6370	6990	8380	9000	9710	11310	11570
	E	kg	3430	4350	5520	6540	7180	8600	9250	9990	11610	11870
Weight functioning	A	kg	3640	4640	5860	6970	7680	9180	9900	10700	12420	12690
	E	kg	3730	4750	6000	7140	7870	9400	10150	10980	12720	12990

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.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com