

# NSG

## Air-water chiller

Cooling capacity 228 ÷ 1580 kW

- Microchannel coil

- High efficiency also at partial loads
- Night mode



### 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, micro-channel 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 galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A** High efficiency
- E** Silenced high efficiency
- L** Standard silenced
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### 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.

#### Bi-tri circuit unit

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.

#### 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.

#### 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

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL PCOs

**Units include 1 control board for each compressor.**

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:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.
- Possibility to control two units in a Master-Slave configuration (from size 1402 to 6402)

### ACCESSORIES

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

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

**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 control boards). 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.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

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

















Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
<b>Fans: J</b>														
<b>Inverter fan</b>														
Fan motor														
Air flow rate	°	m <sup>3</sup> /h	216000	252000	252000	288000	288000	288000	324000	324000	324000	360000	396000	396000
	A	m <sup>3</sup> /h	256000	288000	288000	324000	360000	396000	396000	384000	384000	448000	448000	480000
	E	m <sup>3</sup> /h	230000	230000	253000	253000	276000	299000	322000	322000	345000	345000	368000	-
	L	m <sup>3</sup> /h	184000	207000	207000	234000	260000	286000	286000	276000	276000	322000	322000	345000
	N	m <sup>3</sup> /h	253000	299000	322000	345000	368000	368000	391000	-	-	-	-	-
	U	m <sup>3</sup> /h	320000	320000	352000	352000	384000	416000	448000	448000	480000	480000	512000	-
<b>Sound data calculated in cooling mode (1)</b>														
Sound power level	°	dB(A)	101,0	101,0	101,0	102,0	102,0	102,0	102,0	102,0	102,0	103,0	103,0	103,0
	A	dB(A)	100,0	100,0	101,0	102,0	102,0	102,0	102,0	102,0	102,0	102,0	102,0	103,0
	E	dB(A)	94,0	94,0	94,0	94,0	94,0	94,0	94,0	94,0	94,0	94,0	95,0	-
	L	dB(A)	93,0	93,0	93,0	93,0	94,0	94,0	94,0	94,0	94,0	94,0	94,0	95,0
	N	dB(A)	93,0	94,0	94,0	95,0	95,0	95,0	95,0	95,0	-	-	-	-
	U	dB(A)	101,0	101,0	101,0	102,0	102,0	102,0	102,0	102,0	102,0	102,0	102,0	-

(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 measured in free field (in compliance with UNI EN ISO 3744).



Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Empty weight module 2	° kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L kg	-	-	-	-	-	-	-	5068	5068	5512	5512	5675	6265
	E,U kg	-	-	-	-	6207	6671	6671	5482	5482	5512	5512	-	-
	N kg	-	6448	6448	7056	7056	7120	7120	6014	-	-	-	-	-
Total empty weight	° kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L kg	-	-	-	-	-	-	-	14098	14159	15342	15405	16511	17784
	E,U kg	-	-	-	-	12483	12948	13412	15202	15685	15795	16706	-	-
Weight functioning module 1	N kg	-	12531	12965	13573	14182	14246	14310	16894	-	-	-	-	-
	° kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L kg	-	-	-	-	-	-	-	9547	9608	10334	10397	11767	12437
	E,U kg	-	-	-	-	6589	6589	7053	10237	10720	10787	12125	-	-
Weight functioning module 2	N kg	-	6342	6776	6776	7438	7438	7502	11398	-	-	-	-	-
	° kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L kg	-	-	-	-	-	-	-	5327	5327	5771	5771	5987	6577
Total weight functioning	E,U kg	-	-	-	-	6519	6984	6984	5741	5741	5771	5771	-	-
	N kg	-	6706	6706	7369	7369	7433	7433	6273	-	-	-	-	-
	° kg	-	-	-	-	-	-	-	-	-	-	-	-	-
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.	A,L kg	-	-	-	-	-	-	-	14874	14935	16105	16168	17755	19014
	E,U kg	-	-	-	-	13108	13572	14037	15978	16461	16558	17896	-	-
	N kg	-	13049	13482	14144	14807	14871	14935	17670	-	-	-	-	-

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