AERMEC

NEW!

NBW

Water-cooled water chillers, heat pumps and moto-evaporating units
With capacities from 36 to 90 kW

R407C

EUROVENT CERTIFIED PERFORMANCE

Aermec adheres to the EUROVENT Certification Programme.
The products concerned appear in the EUROVENT Certified Products Guide.

Features

- Available in 4 sizes
- Versions:
  NBW: cooling only
  NBW E: evaporator unit. The units are despatched after being pre-charged.
  NBW H: heat pump
- Full compliance with CE and EMC requirements
- High efficiency reciprocating and scroll compressors with low power consumption
- Water side differential pressure switch standard on all models
- Modular microprocessor control system
- Straightforward and intuitive control panel
- Functional parameters can be displayed in any of four languages
- High efficiency plate type heat exchangers
- Remote control panel with alarm signals
- Compact size
- Metallic protective cabinet with rustproof polyester paint
- Cabinet interior and compressor housing lined with flame-retardant sound insulation material
- Communications protocol for interface with building management systems
- The sizes 147 and 207 can be dimensionally coupled with the storage units SAP 0075 and 0150

Accessories

- **AER485:** RS-485 interface for supervision systems with MODBUS protocol.
- **PGS:** Daily/weekly programmer with facility to program two daily on/off cycles and set different parameters for each day of the week.
- **PR1:** Remote control panel providing power on/off, operating mode selection (cooling/heating) and general alarm indication.
- **ROMEO:** (**R**emote **O**verwatching **M**odem **E**nabling **O**peration) is a device that enables a remote control of a chiller from an ordinary WAP mobile phone. Furthermore it allows to send alarm or pre-alarm SMS messages up to 3 GSM mobile phones which may not be equipped with WAP. This device includes AER485 accessory.
- **VP:** Pressure switch valve complete with connections, piloted directly in relation to condensation pressure; the valve modulates the volume of water needed to cool the condenser, thereby maintaining the condensation temperature unchanged.
- **VPH:** Pressure switch valve with bypass solenoid valve: during cooling mode operation the bypass valve is closed so the water flows exclusively through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.
- **VT:** Anti-vibration mounts: set of four mounts for installation in locations on the underneath of the base to attenuate the transmission of vibration generated by the compressor.
- **TP 1:** Low pressure transducer: to provide working pressure readout on the microprocessor card display (one required for each circuit).
- **TP 2:** High pressure transducer: to provide working pressure readout on the microprocessor card display (one required for each circuit).

Compatibility of accessories

Mod. NBW	AER485	PR1	PGS	ROMEO	VP 6	VP 7	VP 8	VPH 6	VPH 7	VPH 8	VT 8	VT 9	TP1	TP2
147	4	4	4	4	4 (x2)						4		4 (x2)	4 (x2)
147 E	4	4	4	4							4		4 (x2)	4 (x2)
147 H	4	4	4	4				4 (x2)			4		4 (x2)	4 (x2)
207	4	4	4	4		4 (x2)					4		4 (x2)	4 (x2)
207 E	4	4	4	4							4		4 (x2)	4 (x2)
207 H	4	4	4	4					4 (x2)		4		4 (x2)	4 (x2)
307	4	4	4	4			4 (x2)					4	4 (x2)	4 (x2)
307 E	4	4	4	4								4	4 (x2)	4 (x2)
307 H	4	4	4	4						4 (x2)		4	4 (x2)	4 (x2)
407	4	4	4	4			4 (x2)					4	4 (x2)	4 (x2)
407 E	4	4	4	4								4	4 (x2)	4 (x2)
407 H	4	4	4	4						4 (x2)		4	4 (x2)	4 (x2)

N.B. = between brackets, the quantity necessary.

Technical data

Mod. NBW		147	147 H	207	207 H	307	307 H	407	407 H
Cooling capacity	kW	39	39	60	60	79	79	90	90
Total input power	kW	9.7	9.7	15.0	15.0	19.8	19.8	22.8	22.8
Input current	A	19.3	19.3	29.9	29.9	36.7	36.7	43.1	43.1
E.E.R.	W/W	4.02	4.02	4.00	4.00	3.99	3.99	3.95	3.95
Evaporator water flow rate	l/h	6710	6710	10320	10320	13590	13590	15480	15480
Evaporator water pressure drop	kPa	23	23	34	34	48	48	20	20
Condenser water consumption	l/h	8290	8290	12770	12770	16820	16820	19210	19210
Condenser water pressure drop	kPa	50	41	84	48	77	55	66	72
Heating capacity	kW	–	42	–	64.5	–	86	–	97
Total input power	kW	–	13.5	–	20.7	–	27.1	–	30.9
Input current	A	–	24.5	–	37.1	–	45.9	–	53.6
C.O.P.	W/W	–	3.11	–	3.12	–	3.17	–	3.14
Condenser water flow rate	l/h	–	7220	–	11090	–	14790	–	16680
Condenser water pressure drop	kPa	–	30	–	35	–	41	–	53
Evaporator water consumption (10 °C)	l/h	–	4900	–	7530	–	10130	–	11370
Evaporator water pressure drop	kPa	–	11	–	17	–	24	–	10
♪ Sound pressure	dB(A)	53	53	55.5	55.5	61.5	61.5	63,5	63,5
Compressor	n.	2	2	2	2	2	2	2	2
Evaporator	n.	1	1	1	1	1	1	1	1
	Ø Gas	2″/M	2″/M	2″/M	2″/M	2″/M	2″/M	2″/M	2″/M
Condenser	n.	2	2	2	2	2	2	2	2
	Ø Gas	1″/M	1″/M	1″/M	1″/M	1″/M	1″/M	1″/M	1″/M
Peak current	A	111	113	145	149	153	158	197	202

Mod. NBW		147 E	207 E	307 E	407 E
Cooling capacity	kW	36	55	73	83
Total input power	kW	10.3	16.0	20.9	24.2
Input current	A	20	30.9	38.1	44.7
E.E.R.	W/W	3.50	3.44	3.49	3.43
Evaporator water flow rate	l/h	6190	9460	12560	14280
Evaporator water pressure drop	kPa	20	31	43	18
♪ Sound pressure	dB(A)	53	55.5	61.5	63.5
Compressor	n.	2	2	2	2
Evaporator	n.	1	1	1	1
	Ø Gas	2″/M	2″/M	2″/M	2″/M
Gas line	Ø mm	16	18	22	22
Liquid line	Ø mm	12.7	12.7	12.7	16
Peak current	A	111	145	154	197

Power supply = 3N~ 400V 50Hz.

Performance values refer to the following conditions:

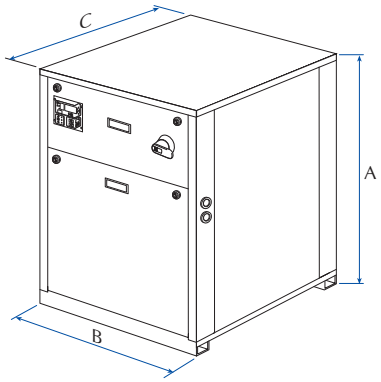
♪ Sound pressure measured in an 85 m³ semi-reverberant test chamber with reverberation time Tr = 0.5s.

Cooling:
- temperature of processed water 7 °C;
- condenser water inlet temperature 30 °C;
- Δt = 5 °C.

Heating:
- temperature of processed water 50 °C;
- evaporator water inlet temperature 10 °C; Δt = 5 °C.

Cooling (NBW E):
- condensation temperature 45 °C
- processed water temperature 7 °C; Δt = 5 °C.

Dimensions (mm)



Mod.		147	207	307	407
Height	A	1100	1100	1100	1200
Width	B	800	800	800	1050
Depth	C	700	700	700	750
Weight (kg)	NBW	226	313	337	417
	NBW E	217	303	319	388
	NBW-H	231	321	345	419

Cod.: SNBWUY.07 / 0605

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