

NSB

Air cooled chillers
With axial fans and power ratings from 252 to 1600 kW with two-screw compressor

R134a

High efficiency version (1)



Aermec adhere to the EUROVENT Certification program. The products concerned appear in the EUROVENT Certified product guide.



Operating limits up to 48 °C

E.E.R. (version A) between 3.11 and 3.34

Available with pumping assembly

Features

- Available in 32 different sizes
- Cooling only versions
- The versions are made with R134 gas
- Available versions fitted with partial and total heat recovery unit
- High efficiency volute compressors with quiet functioning and with regulation of refrigerating capacity by means of continuous modulation from 40 to 100%. **(25-100% with accessory electronic valve)**
- Possibility of also having a **pump assembly** (see configurator) that includes:
 - 1 pump, or 1 pump plus 1 reserve pump
 - two 25 litre expansion tanks
 - charging assembly

High efficiency version A:

- **Operating limits up to 48 °C** room air temperature.
- Acoustic protection cover on the compressor for silent functioning
- Versions E:
 - Compressor hood for acoustic protection.
 - Reduced noise emission.
 - Fan-speed control device
 - Muffler on the pressing line.
- Modular microprocessor control system
- Multilingual operating parameter display.
- Tubular band exchanger optimised for R134a gas.

- Axial flow fan units for extremely quiet operation
- Metallic protective cabinet with rustproofing polyester paint

Note⁽¹⁾ In addition to these versions A and E the following versions are also available:
(°) standard
L standard in silenced operation.
For more information, please refer to the dedicated sheet.

Accessories

- **AER 485P2:** RS-485 interface for supervision systems with MODBUS protocol.
- **AVX:** Sprung shock absorber supports. Select the AVX model from the compatibility table.
- **DCPX:** Low temperature device for operation of outdoor units at ambient temperatures from less than 19 °C down to -10 °C. Standard for versions D, and E.
- **KRS:** Exchanger electrical **element to be installed in the factory**
- **SOLENOID VALVE** that permits modulation between 25 and 100% inclusive
- **GP:** Safety grille: protects external batteries from accidental impact and hail damage. **To be installed in the factory**
- **PRV:** This allows the refrigerator command operations to be given from a distance.
- **RIF:** Current rephaser. Parallel connection with the motor makes the reduction of input current possible. **This can only be installed when the machine is being made and must therefore be specified when the order is placed.** Select the RIF model from the technical booklet.
- **ROMEO:** (Remote Overwatching Modem

Enabling Operation) 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. The set includes the AER485. The AER485P2 accessory must be added to this kit.

Technical data

Mod. NSB	Vers.	1251	1401	1601	1801	2101	2401	1402	1602	1802
Cooling capacity (kW)	A	276	314	347	420	466	533	304	345	397
	E	252	291	330	391	432	497	273	314	364
Total input power (kW)	A	88	97	104	134	150	165	97	109	127
	E	90	101	109	140	155	172	101	115	130
E.E.R.	A	3,14	3,24	3,34	3,13	3,11	3,23	3,13	3,17	3,13
	E	2,80	2,88	3,03	2,79	2,79	2,89	2,70	2,73	2,80
Total input current (A)	A	154	172	181	222	256	279	171	190	215
	E	152	170	182	225	255	283	170	194	214
Water flow rate (l/h)	A	47.470	54.010	59.680	72.240	80.150	91.680	52.290	59.340	68.280
	E	43.340	50.050	56.760	67.250	74.300	85.480	46.960	54.010	62.610
Compressor	No.	1	1	1	1	1	1	2	2	2
Capacity step control	%	40 - 100								
♪Sound pressure (dBA)	°	62.0	63.0	65.0	65.0	66.0	66.0	64.0	65.0	65.0
	L	54.0	55.0	57.0	57.0	58.0	58.0	56.0	57.0	57.0
Air flow rate (m³/h)	A	110.000	106.000	106.000	136.000	180.000	174.000	106.000	106.000	144.000
	E	70.000	74.000	81.500	94.000	113.000	118.000	74.000	77.000	96.000
Fans (No.)	A - E	6	6	6	8	10	10	6	6	8
Evaporators (1)	No.	1	1	1	1	1	1	1	1	1

Mod. NSB	Vers.	2002	2202	2352	2502	2652	2802	3002	3202	3402
Cooling capacity (kW)	A	450	495	519	543	577	612	661	695	767
	E	410	453	478	503	539	574	622	660	721
Total input power (kW)	A	144	157	166	173	182	197	201	208	238
	E	150	161	171	181	192	207	210	218	249
E.E.R.	A	3,13	3,15	3,13	3,14	3,17	3,11	3,29	3,34	3,22
	E	2,73	2,81	2,80	2,78	2,81	2,77	2,96	3,03	2,90
Total input current (A)	A	248	274	288	301	320	339	353	362	403
	E	247	277	290	303	320	344	352	364	407
Water flow rate (l/h)	A	77.400	85.140	89.270	93.400	99.240	105.260	113.690	119.540	131.920
	E	70.520	77.920	82.220	86.520	92.710	98.730	106.980	113.520	124.010
Compressor	No.	2	2	2	2	2	2	2	2	2
Capacity step control	%	40 - 100								
♪Sound pressure (dBA)	A	66	66	65	66	66	66	67	67	67
	E	58	58	58	58	58	59	58	59	59
Air flow rate (m³/h)	A	187.500	180.000	176.500	173.000	173.000	173.000	212.000	212.000	242.000
	E	124.500	120.000	123.000	126.000	130.000	136.000	155.500	163.000	175.500
Fans (No.)	A - E	10	10	10	10	10	10	12	12	14
Evaporators (1)	No.	1	1	1	1	1	1	2	2	2

Mod. NSB	Vers.	3602	3902	4202	4502	4802	5003	5203	5403	5703
Cooling capacity (kW)	A	839	885	953	999	1066	1,114	1,186	1,259	1,305
	E	782	822	888	928	994	1,051	1,112	1,172	1,213
Total input power (kW)	A	268	284	298	314	329	342	372	401	417
	E	280	295	312	327	344	358	389	421	435
E.E.R.	A	3,13	3,12	3,20	3,18	3,24	3,26	3,19	3,14	3,13
	E	2,79	2,79	2,85	2,84	2,89	2,94	2,86	2,78	2,79
Total input current (A)	A	444	478	501	535	558	584	625	666	700
	E	450	480	508	538	566	589	632	674	705
Water flow rate (l/h)	A	144,310	152,220	163,920	171,830	183,350	191,610	203,990	216,550	224,460
	E	134,500	141,380	152,740	159,620	170,970	180,770	191,260	201,580	208,640
Compressor	No.	2	2	2	2	2	3	3	3	3
Capacity step control	%	40 - 100								
♪Sound pressure (dBA)	A	67	68	68	68	68	69	69	69	69
	E	60	60	60	60	60	61	61	61	61
Air flow rate (m³/h)	A	272.000	316.000	310.000	354.000	348.000	348.000	378.000	408.000	452.000
	E	188.000	207.000	212.000	231.000	236.000	257.000	269,500	282.000	301.000
Fans (No.)	A - E	16	18	18	20	20	20	22	24	26
Evaporators (1)	No.	2	2	2	2	2	3	3	3	3

(1) = Shell & tube

Supply voltage = 3~ 400V 50 Hz. Performance values refer to the following conditions :

■ Cooling:

Water inlet temperature 12°C
 Water outlet temperature 7°C
 outside air temperature 35 °C
 Δt = 5 °C.

♪Sound Pressure:

Measured in free field conditions at distance of 10 m and direction factor = 2. In accordance with the ISO 3744

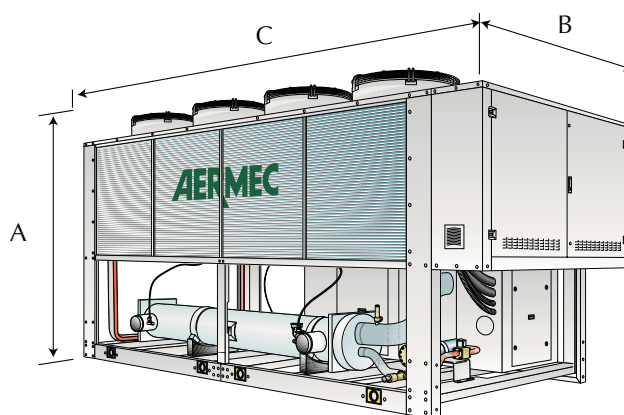
Mod. NSB	Vers.	6003	6303	6603	6903	7203
Cooling capacity (kW)	A	1,372	1,419	1,486	1,532	1,600
	E	1,278	1,319	1,384	1,425	1,490
Total input power (kW)	A	432	448	463	479	494
	E	452	467	484	499	516
E.E.R.	A	3,18	3,17	3,21	3,20	3,24
	E	2,83	2,82	2,86	2,86	2,89
Total input current (A)	A	723	757	780	814	837
	E	733	763	791	821	849
Water flow rate (l/h)	A	235.980	244.070	255.589	263.500	275.200
	E	219.820	226.870	238.050	245.100	256.280
No. of compressors		3	3	3	3	3
Capacity step control	%			40 - 100		
Sound pressure (dBA)	A	69	69	69	70	70
	E	61	61	61	61	62
Air flow rate (m ³ /h)	A	446.000	490.000	484.000	528.000	522.000
	E	306.000	325.000	330.000	349.000	354.000
Fans (No.)	A - E	26	28	28	30	30
Evaporators (1)	No.	3	3	3	3	3

(1) = Shell & tube
 Supply voltage = 3~ 400V 50 Hz. Performance values refer to the following conditions :

Sound Pressure:
 Measured in free field conditions at distance of 10 m and direction factor = 2. In accordance with the ISO 3744

Cooling:
 Water inlet temperature 12°C
 Water outlet temperature 7°C
 outside air temperature 35 °C
 $\Delta t = 5$ °C.

Dimensions (mm)



Mod. NSB		1251	1401	1601	1801	2101	2401	1402	1602	1802	2002	2202	2352
Height (A)		2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
Width (B)		2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Depth (C)	A/E	3.780	3.780	3.780	4.770	5.750	5.750	3.780	3.780	4.770	5.750	5.750	5.750
Poids	kg A/E	3050	3230	3250	4330	4920	5150	3420	3560	3900	4700	5270	5390

Mod. NSB		2502	2652	2802	3002	3202	3402	3602	3902	4202	4502	4802	5003
Height (A)		2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
Width (B)		2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Depth (C)	A/E	5.750	5.750	5.750	7.160	7.160	8.150	9.140	10.120	10.120	11.100	11.100	11.530
Poids	kg A/E	5500	5510	5520	6450	6520	7540	8610	9180	9410	9820	10200	11160

Mod. NSB		5203	5403
Height (A)		2.450	2.450
Width (B)		2.200	2.200
Depth (C)	A/E	12.520	13.510
Poids	kg A/E	12320	13540

Mod. NSB		5703	6003	6303	6603	6903	7203
Height (A)		2.450	2.450	2.450	2.450	2.450	2.450
Width (B)		2.200	2.200	2.200	2.200	2.200	2.200
Depth (C)	A/E	14.490	14.490	15.470	15.470	16.450	16.450
Poids	kg A/E	13530	13760	14330	14560	14970	15350

For transportation reasons, NSB sizes from 5703 to 7203 are sent separately, consisting of two compressors and their standard electrical box (placed in front of the machine) and one module with a compressor and the electrical box at the side of the compressors under the slatted exchange battery. On the site, it is only necessary to connect the two units electrically. For greater information, refer to the technical and/or installation manual.