



WSAN-EE 82-102-122-142-162- 182-202-222-242-282

AIR TO WATER HEAT PUMP FOR OUTDOOR INSTALLATION

Installation and Use Manual

M62P40B5-02

21/09/2007

TECHNICAL DATA

SIZE		82	102	122	142	162	182	202	222	242	282
COOLING											
Cooling capacity	1 kW	22,2	25,6	29	34	38,2	41,4	48,2	54,9	58,2	68
Compressor power input	1 kW	7,7	9,3	10,9	12,5	14,8	16,7	18,1	21,2	23,2	26,2
Total power input	2 kW	8,4	10	11,5	13,9	16,1	17,9	19,5	22,5	24,5	28,8
EER	3	2,64	2,56	2,52	2,44	2,37	2,31	2,47	2,44	2,37	2,36
EER	4	4,96	5,02	5,01	4,22	4,61	4,6	4,5	4,69	4,75	4,3
EER	5	3,95	3,85	4,01	3,44	3,55	3,7	3,66	3,66	3,6	3,6
HEATING											
Heat output	6 kW	26	30,4	34,7	40,3	45,4	49	57,7	65,5	69,7	80
Compressor power input	kW	7,7	9	10,4	12,2	14	15,3	18,3	20,9	22,5	26,1
Total power input	2 kW	8,4	9,6	11	13,6	15,3	16,6	19,7	22,2	23,9	28,8
COP		3,1	3,16	3,15	2,96	2,96	2,95	2,92	2,95	2,91	2,77
COMPRESSOR											
Type of compressors		SCROLL									
No. of Compressors	Nr	2									
Std Capacity control steps	Nr	3									
Refrigerant charge	Nr	1									
Refrigerant circuits (C1)	7 kg	12	12	12	15	15	15	20	20	20	22
INTERNAL EXCHANGER											
Type of internal exchanger	8	PHE									
No. of internal exchangers	Nr	1									
Water flow rate	l/s	1,1	1,2	1,4	1,6	1,8	2	2,3	2,6	2,8	3,3
Useful pump discharge head	kPa	148	140	135	190	187	185	175	169	160	103
Water content	7 l	1,7	2	2,4	2,6	3,1	3,4	3,8	4,4	4,4	5,5
EXTERNAL EXCHANGER											
Quantity	Nr	2									
EXTERNAL SECTION FANS											
Type of fans	9	AX									
Number of fans	Nr	2	2	2	4	4	4	6	6	6	6
Standard air flow	l/s	3056	3056	3056	4125	4125	4125	6120	6120	6120	7800
Installed unit power	kW	0,22	0,22	0,22	0,15	0,15	0,15	0,15	0,15	0,15	0,19
HYDRAULIC CIRCUIT											
Max water side pressure	kPa	550									
Safety valve calibration	kPa	600									
EXPANSION VESSEL											
Expansion vessel capacity	l	5									
No. of expansion vessels	Nr	1									
DIMENSIONS											
Length	mm	1560	1560	1560	1595	1595	1595	2130	2130	2130	2160
Depth	mm	678	678	678	1107	1107	1107	1107	1107	1107	1107
Height	mm	1367	1367	1367	1570	1570	1570	1570	1570	1570	1570
STANDARD UNIT WEIGHTS											
Shipping weight	kg	310	315	320	440	470	490	560	580	600	660
Operating weight	kg	330	335	340	460	490	510	580	600	620	670

(1) data referred to the following conditions :

internal exchanger water = 12/7°C
ambient temperature = 35°C

(2) The total input is given by the compressor input + fans power input + pump power input - proportional part of the water pump to supply the available head to installation input

(3) 100% EER
internal exchanger water supply temperature = 7°C
outside air temperature 35°C

(4) 66% EER

internal exchanger water supply temperature = 10°C
ambient temperature = 28°C

(5) 33% EER
internal exchanger water supply temperature = 13°C
ambient temperature = 25°C

(6) data referred to the following conditions :
ambient temperature = 7°C (RH = 85%)
external exchanger water supply temperature 45°C

(7) approximate values

(8) PHE = plates

(9) AX = axial-flow fan

CUT-OUT AND CONTROL SETTINGS

		Opens	Closes		
High pressure switch	(kPa)	2750	2000		
Low pressure switch	(kPa)	230	360	Max compressor starts/hour	(n°) 10
Antifreeze protection	(°C)	4	5,5	Safety discharge thermostat	(°C) 120

Note: The safety "high pressure switch" and "safety discharge thermostat" must be reset manually from the control unit. The "low pressure switch" resets automatically. In some units the safety discharge thermostat is internal to the compressor.