

HEAT PUMPS R22-R407C

AIR COOLED HEAT PUMPS WITH SEMI-HERMETIC COMPRESSORS

PAS...

Cooling capacities from 120 kW to 270 kW



PAS 1802

- Heat pumps suitable for hot and cold water production in refrigerating plants and heating systems in houses, offices and industrial premises
- Designed for external installation
- Packaged units with housing coated in zinc steel plates painted with epoxy powders. Base-frame provided with a sandwich insulating panel
- Operating temperatures from +15 °C to +42 °C in the standard version
- The following versions are available:
 - PAS... standard version - axial fans 920 rpm
 - PAS... U, ultrasilenced version - axial fans 550 rpm
 - PAS... C standard version with centrifugal fans
 - PAS...C.U ultrasilenced version with centrifugal fans
- Microprocessor for water temperature regulation, overall check of the running parameters, auto-detection failure system, remote management and supervision (option IH, IB)
- Hot gas defrosting device, time/temperature system
- Antifreeze electric heater on evaporator
- Compressors hour counter

Options:

- | | |
|-------|--|
| AE | Electrical supply different from the standard |
| FA | Coil protection filters |
| G4-G6 | 4/6 control capacity steps |
| GP | Protection grid for the external coil |
| IB/IH | RS422, RS485 serial interface |
| IG | Watch card |
| IM | Seawood packing |
| MF | Phase monitor |
| MV | Buffer tank capacity 720 lt. |
| P1 | Single pump group |
| PA-PM | Rubber/spring type vibration dampers |
| PF | Safety water flow switch |
| PQ | Remote microprocessor |
| PT | Twin pump group |
| PW | Part-winding start-up |
| QR | Electrical board on opposite side |
| RF | Rephasing system cost |
| RL | Compressor overload relays |
| RR-RM | 2 treatments for the condensing coil |
| RP | Partial heat recovery |
| SU | Sound-insulation of compressors room with standard material |
| 1M/2M | Higher available pressure to the fans discharge (only for PAS.C) |

Provided with:

- 2 high efficiency semi-hermetic compressors, motor speed 1450 rpm, with built-in thermal protection, electric oil heater, lubricating pump, differential oil switch and rubber dampers contained in a suitable housing
- 2 circuits shell & tube evaporator, with ruled copper pipes for highly efficient heat exchange
- Heat-exchange external coil with high-efficiency aluminium fins and copper pipes designed for cooling fluids; independent circuits
- Low rpm axial fans directly coupled provided with heat protection, low sound level blades with wing profile, and safety protection grid
- Double suction centrifugal fans with onward wheel dynamically balanced; electric motor driven with driving belt, pulley with variable pitch
- Electric panel, in compliance with CE norms, supplied with a main switch with magnetothermic protection
- The cooling circuit is composed of: cycle inversion valve, thermostatic expansion valve, dehydrating filter, sight glass, safety device, antifreeze thermostat, high and low pressure switches, high and low gauges, oil gauge and shut-off valve on suction side

HEAT PUMPS R22-R407C

AIR COOLED HEAT PUMPS WITH SEMI-HERMETIC COMPRESSORS

PAS... Technical data

PAS...		1202	1402	1602	1802	2002	2202	2402	2602	2802	3002
Cooling capacity with R22	kW	122	135	156	172	193	205	225	241	256	272
Absorbed capacity with R22	kW	33.2	42.0	46.6	52.7	56.5	63.1	66.9	72.4	81.4	90.5
Cooling capacity with R407C	kW	116.2	128.6	148.6	163.8	183.8	195.2	214.3	229.5	243.8	259.0
Absorbed capacity with R407C	kW	35.2	44.5	49.4	55.9	59.9	66.9	70.9	76.7	86.3	95.9
Heating capacity	kW	142	162	184	207	225	243	263	284	308	333
[Fans]											
Number of fans	n	4	4	4	4	6	6	6	6	6	6
Air flow rate	l/s	14400	14400	14400	14400	21600	21600	21000	21000	21000	21000
Rotation speed	rpm	920	920	920	920	920	920	920	920	920	920
Motor capacity	kW	3.2	3.2	3.2	3.2	4.8	4.8	4.8	4.8	4.8	4.8
Nominal absorbed current	A	6.2	6.2	6.2	6.2	9.3	9.3	9.3	9.3	9.3	9.3
Sound pressure level	dB(A)	70	70	71	71	72	72	72	72	73	74
[Shell and Tube evaporator]											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow with R22	l/s	5.8	6.5	7.5	8.2	9.2	9.8	10.8	11.5	12.2	13.0
Pressure drop with R22	kPa	24.5	30.0	22.5	27.5	29.0	33.0	25.0	29.0	25.0	26.2
Water flow with R407C	l/s	5.6	6.1	7.1	7.8	8.8	9.3	10.2	11.0	11.6	12.4
Pressure drop with R407C	kPa	22	27	20	25	26	30	23	26	23	24
Water volume	l	35	35	46	46	59	59	71	71	91	81
[Pumps]											
Available pressure with P1	kPa	128	103	92	59	124	117	98	100	113	106
Motor capacity with P1	kW	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
Available pressure with PT	kPa	140	114	94	61	115	105	84	83	91	76
Motor capacity with PT	kW	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
Buffer tank water volume	l	720	720	720	720	720	720	720	720	720	720
[Semi-hermetic compressors]											
Number of compressors	n	2	2	2	2	2	2	2	2	2	2
Circuits	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - standard	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - optional	n	4	4	4	4-6	4-6	4-6	4-6	4-6	4-6	4-6
Nominal input current	A	62	79	87	97	107	121	129	140	158	175
Max input current	A	89	110	122	133	153	170	181	192	214	236
Inrush current (direct)	A	217	248	339	351	380	397	520	531	634	656
Inrush current (part-winding)	A	156	179	239	250	269	286	366	377	443	466
Compressors' max absorbed capacity	kW	50.5	60.9	67.7	74.5	84.3	92.1	98.4	104.8	116.2	127.5
Total absorbed capacity with R22	kW	37.9	46.7	51.3	57.4	64.3	70.9	74.7	80.2	89.2	98.3
Total absorbed capacity with R407C	kW	39.9	49.2	54.1	60.6	67.7	74.7	78.8	84.6	94.1	103.8
[Dimensions]											
Length	mm	3460	3460	3460	3460	5150	5150	5150	5150	5150	5150
Width	mm	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245
Height	mm	2085	2085	2085	2085	2085	2085	2085	2085	2085	2085
Weight	kg	1600	1621	1746	1746	2110	2180	2360	2380	2457	2529
Power supply		400V/3Ph/50Hz+T+N									

Nominal conditions: operation in summertime: air temperature 32 °C - water temperature 7/12 °C

operation in wintertime: air temperature +10 °C - water temperature 40/45 °C

Notes:

- Operating limits and correction factors for performances at temperatures different than nominal ones are on page 115

- Sound pressure measured at 1 meter in a free area (ISO 3746)

HEAT PUMPS R22-R407C

AIR COOLED HEAT PUMPS WITH SEMI-HERMETIC COMPRESSORS

PAS...U Technical data

PAS...U		1202	1402	1602	1802	2002	2202	2402	2602	2802	3002
Cooling capacity with R22	kW	122.3	137.8	158.3	174.9	185.2	195.7	224.9	240.8	254.4	270.3
Absorbed capacity with R22	kW	32.4	41.2	46.1	51.9	58.7	65.5	67.1	72.4	81.9	90.9
Cooling capacity with R407C	kW	116.5	131.2	150.8	166.6	176.4	186.4	214.2	229.3	242.3	257.4
Absorbed capacity with R407C	kW	34.3	43.7	48.9	55.0	62.2	69.4	71.1	76.7	86.8	96.4
Heating capacity	kW	141.8	161.9	184.3	206.8	224.6	242.5	263.3	284.1	308.5	332.8
[Fans]											
Number of fans	n	6	6	6	6	6	6	8	8	8	8
Air flow rate	l/s	13500	13500	13000	13000	13000	13000	17550	17550	17550	17550
Rotation speed	rpm	555	555	545	545	545	545	550	550	550	550
Motor capacity	kW	1.35	1.35	1.38	1.38	1.38	1.38	1.84	1.84	1.84	1.84
Nominal absorbed current	A	3.30	3.30	3.36	3.36	3.36	3.36	4.44	4.44	4.44	4.44
Sound pressure level	dB(A)	61	61	62	63	63	63	63	63	65	66
[Shell and Tube evaporator]											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow with R22	l/s	5.8	6.6	7.6	8.4	8.8	9.4	10.7	11.5	12.2	12.9
Pressure drop with R22	kPa	25	30	23	28	29	33	25	29	25	26
Water flow with R407C	l/s	5.6	6.3	7.2	8.0	8.4	8.9	10.2	11.0	11.6	12.3
Pressure drop with R407C	kPa	22	27	21	25	26	30	23	26	23	24
Water volume	l	35	35	46	46	59	59	71	71	91	91
[Pumps]											
Available pressure with P1	kPa	128	103	92	59	124	117	98	100	113	106
Motor capacity with P1	kW	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
Available pressure with PT	kPa	140	114	94	61	115	105	84	83	91	76
Motor capacity with PT	kW	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
Buffer tank water volume	l	720	720	720	720	720	720	720	720	720	720
[Semi-hermetic compressors]											
Number of compressors	n	2	2	2	2	2	2	2	2	2	2
Circuits	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - standard	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - optional	n	4	4	4	4-6	4-6	4-6	4-6	4-6	4-6	4-6
Nominal input current	A	61	78	86	96	111	125	129	140	159	176
Max input current	A	89	110	122	133	153	170	181	192	214	236
Inrush current (direct)	A	217	248	339	351	380	397	520	531	634	656
Inrush current (part-winding)	A	156	179	239	250	269	286	366	377	443	466
Compressors' max absorbed capacity	kW	48.2	58.6	65.4	72.1	79.9	87.7	94.6	101	112.4	123.7
Total absorbed capacity with R22	kW	35.3	44.1	49.0	54.8	63.1	69.9	71.9	77.2	86.7	95.7
Total absorbed capacity with R407C	kW	37.2	46.5	51.7	57.9	66.6	73.8	76.0	81.6	91.7	101.2
[Dimensions]											
Length	mm	5150	5150	5150	5150	5150	5150	6840	6840	6840	6840
Width	mm	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245
Height	mm	2085	2085	2085	2085	2085	2085	2085	2085	2085	2085
Weight	kg	2087	2108	2226	2236	2291	2321	2952	2972	3049	3121
Power supply		400V/3Ph/50Hz+T+N									

Nominal conditions: operation in summertime: air temperature 32 °C - water temperature 7/12 °C

operation in wintertime: air temperature +10 °C - water temperature 40/45 °C

Notes:

- Operating limits and correction factors for performances at temperatures different than nominal ones are on page 115

- Sound pressure measured at 1 meter in a free area (ISO 3746)

HEAT PUMPS R22-R407C

AIR COOLED HEAT PUMPS WITH SEMI-HERMETIC COMPRESSORS

PAS...C Technical data

PAS...C		1202	1402	1602	1802	2002	2202	2402	2602	2802	3002
Cooling capacity with R22	kW	118.8	132.4	153.0	168.9	187.3	198.6	221.0	236.1	252.0	266.1
Absorbed capacity with R22	kW	33.8	42.8	47.6	53.7	58.1	64.7	68.3	73.9	82.7	92.1
Cooling capacity with R407C	kW	113.1	126.1	145.7	160.9	178.4	189.1	210.5	224.9	240.0	253.4
Absorbed capacity with R407C	kW	35.8	45.4	50.5	56.9	61.6	68.6	72.4	78.3	87.7	97.6
Heating capacity	kW	141.8	161.9	184.3	206.8	224.6	242.5	263.3	284.1	308.5	332.9
[Fans]											
Number of fans	n	4	4	4	4	6	6	6	6	6	6
Air flow rate	l/s	10000	10000	13110	13110	18050	18050	18050	18050	20000	20000
[Version: standard]											
Available pressure	Pa	80	80	110	110	75	75	75	75	85	85
Rotation speed	rpm	850	850	985	985	890	890	890	890	960	960
Motor capacity	kW	9	9	16	16	18	18	18	18	24	24
Nominal absorbed current	A	17	17	20	20	30	30	30	30	54	54
Sound pressure level	dB(A)	69	69	69	69	71	71	71	71	71	71
[Version: 1M]											
Available pressure	Pa	250	250	280	280	255	255	255	255	275	275
Rotation speed	rpm	1015	1015	1120	1120	1050	1050	1050	1050	1115	1115
Motor capacity	kW	12	12	20	20	24	24	24	24	30	30
Nominal absorbed current	A	20	20	45	45	54	54	54	54	68	68
Sound pressure level	dB(A)	72	72	72	72	74	74	74	74	74	74
[Version: 2M]											
Available pressure	Pa	440	440	nd	nd	425	425	425	425	nd	nd
Rotation speed	rpm	1190	1190	nd	nd	1190	1190	1190	1190	nd	nd
Motor capacity	kW	16	16	nd	nd	30	30	30	30	nd	nd
Nominal absorbed current	A	36	36	nd	nd	68	68	68	68	nd	nd
Sound pressure level	dB(A)	74	74	nd	nd	76	76	76	76	nd	nd
[Shell and Tube evaporator]											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow with R22	l/s	5.68	6.33	7.31	8.07	8.95	9.49	10.56	11.28	12.04	12.71
Pressure drop with R22	kPa	23.5	28	21.5	26	28.3	31.5	24.2	28	24.6	26.5
Water flow with R407C	l/s	5.41	6.02	6.96	7.69	8.52	9.04	10.06	10.74	11.47	12.11
Pressure drop with R407C	kPa	21.3	25.4	19.5	23.6	25.7	28.6	22	25.4	22.3	24
Water volume	l	35	35	46	46	59	59	71	71	91	91
[Pumps]											
Available pressure with P1	kPa	128	103	92	59	124	117	98	100	113	106
Motor capacity with P1	kW	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
Available pressure with PT	kPa	140	114	94	61	115	105	84	83	91	76
Motor capacity with PT	kW	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
Buffer tank water volume	l	720	720	720	720	720	720	720	720	720	720
[Semi-hermetic compressors]											
Number of compressors	n	2	2	2	2	2	2	2	2	2	2
Circuits	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - standard	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - optional	n	4	4	4	4-6	4-6	4-6	4-6	4-6	4-6	4-6
Nominal input current	A	63	80	89	99	110	123	131	143	160	178
Max input current	A	89	110	122	133	153	170	181	192	214	236
Inrush current (direct)	A	217	248	339	351	380	397	520	531	634	656
Inrush current (part-winding)	A	156	179	239	250	269	286	366	377	443	466
Compressors' max absorbed capacity	kW	55.4	65.8	72.6	79.4	87.4	95.2	105.7	112.1	123.5	134.9
Total absorbed capacity with R22	kW	44.1	53.1	65.1	71.2	79.1	85.7	89.3	94.9	109.7	119.1
Total absorbed capacity with R407C	kW	46.1	55.7	68.0	74.4	82.6	89.6	93.4	99.3	114.7	124.6
[Dimensions]											
Length	mm	3460	3460	3460	3460	5150	5150	5150	5150	5150	5150
Width	mm	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245
Height	mm	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995
Weight	kg	1916	1937	1989	1999	2626	2656	2810	2830	2907	2979
Power supply		400V/3Ph/50Hz+T+N									

Nominal conditions: operation in summertime: air temperature 32 °C - water temperature 7/12 °C

operation in wintertime: air temperature +10 °C - water temperature 40/45 °C

Notes:

- Operating limits and correction factors for performances at temperatures different than nominal ones are on page 115

- Sound pressure measured at 1 meter in a free area (ISO 3746)

HEAT PUMPS R22-R407C

AIR COOLED HEAT PUMPS WITH SEMI-HERMETIC COMPRESSORS

PAS...C.U Technical data

PAS...C.U		1202	1402	1602	1802	2002	2202	2402	2602	2802	3002
Cooling capacity with R22	kW	118.9	135.2	156.1	172.5	185.2	195.7	222.6	237.7	252.0	266.2
Absorbed capacity with R22	kW	33.8	42.0	46.6	52.6	58.7	65.5	67.8	73.4	82.7	92.1
Cooling capacity with R407C	kW	113.2	128.8	148.7	164.3	176.4	186.4	212.0	226.4	240.0	253.5
Absorbed capacity with R407C	kW	35.8	44.5	49.4	55.8	62.2	69.4	71.9	77.8	87.7	97.6
Heating capacity	kW	141.8	161.9	184.3	206.8	224.6	242.5	263.3	284.1	308.5	332.8
[Fans]											
Number of fans	n	6	6	6	6	6	6	6	6	8	8
Air flow rate	l/s	7000	9170	9170	9170	12000	12000	15280	15280	21000	21000
[Version: standard]											
Available pressure	Pa	65	90	90	90	75	75	60	60	55	55
Rotation speed	rpm	760	800	810	810	810	810	840	840	825	825
Motor capacity	kW	4.5	6.6	6.6	6.6	9.0	9.0	13.2	13.2	17.6	17.6
Nominal absorbed current	A	9.6	13.2	13.2	13.2	18.0	18.0	25.2	25.2	33.6	33.6
Sound pressure level	dB(A)	63	63	63	63	64	64	65	65	65	65
[Version: 1M]											
Available pressure	Pa	180	200	200	200	225	225	220	220	215	215
Rotation speed	rpm	925	935	945	945	980	980	1000	1000	980	980
Motor capacity	kW	7	9	9	9	13	13	18	18	24	24
Nominal absorbed current	A	13	18	18	18	25	25	30	30	40	40
Sound pressure level	dB(A)	66	66	66	66	67	67	68	68	68	68
[Version: 2M]											
Available pressure	Pa	300	390	380	380	400	400	410	410	400	400
Rotation speed	rpm	1065	1140	1140	1140	1145	1145	1180	1180	1150	1150
Motor capacity	kW	9	13	13	13	18	18	24	24	32	32
Nominal absorbed current	A	18	25	25	25	30	30	36	36	72	72
Sound pressure level	dB(A)	68	68	68	68	69	69	70	70	70	70
[Shell and Tube evaporator]											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow with R22	l/s	5.7	6.5	7.5	8.2	8.8	9.4	10.6	11.4	12.0	12.7
Pressure drop with R22	kPa	23.5	30.0	22.6	27.5	27.2	30.0	24.0	27.8	24.8	27.0
Water flow with R407C	l/s	5.4	6.2	7.1	7.8	8.4	8.9	10.1	10.8	11.5	12.1
Pressure drop with R407C	kPa	21	27	20	25	25	27	22	25	22	24
Water volume	l	35	35	46	46	59	59	71	71	81	81
[Pumps]											
Available pressure with P1	kPa	128	103	92	59	124	117	98	100	113	106
Motor capacity with P1	kW	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
Available pressure with PT	kPa	140	114	94	61	115	105	84	83	91	76
Motor capacity with PT	kW	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
Buffer tank water volume	l	720	720	720	720	720	720	720	720	720	720
[Semi-hermetic compressors]											
Number of compressors	n	2	2	2	2	2	2	2	2	2	2
Circuits	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - standard	n	2	2	2	2	2	2	2	2	2	2
Capacity steps - optional	n	4	4	4	4-6	4-6	4-6	4-6	4-6	4-6	4-6
Nominal input current	A	63	79	87	97	111	125	130	142	160	178
Max input current	A	89	110	122	133	153	170	181	192	214	236
Inrush current (direct)	A	217	248	339	351	380	397	520	531	634	656
Inrush current (part-winding)	A	156	179	239	250	269	286	366	377	443	466
Compressors' max absorbed capacity	kW	51.1	61.5	68.3	75.1	85	92.8	101.3	107.7	119.1	130.5
Total absorbed capacity with R22	kW	39.8	50.1	54.7	60.7	70.7	77.5	84.0	89.6	103.3	112.7
Total absorbed capacity with R407C	kW	41.8	52.6	57.5	63.9	74.2	81.4	88.1	94.0	108.3	118.2
[Dimensions]											
Length	mm	5150	5150	5150	5150	5150	5150	5150	5150	6840	6840
Width	mm	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245
Height	mm	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995
Weight	kg	2602	2623	2675	2685	2740	2770	2900	2950	3500	3572
Power supply		400V/3Ph/50Hz+T+N									

Nominal conditions: operation in summertime: air temperature 32 °C - water temperature 7/12 °C
operation in wintertime: air temperature +10 °C - water temperature 40/45 °C

Notes:

- Operating limits and correction factors for performances at temperatures different than nominal ones are on page 115
- Sound pressure measured at 1 meter in a free area (ISO 3746)

AIRCOOLED HEAT PUMPS PAE... - PAS...

OPERATION LIMITS AND CORRECTION FACTORS FOR CAPACITY AND ABSORPTION

AIR: The operation limits are listed in the description of each series.

WATER: The operation temperature ranges from a minimum of +4 to a maximum of +20 °C. By adding glycole in the water circuit it is possible to reach a minimum temperature of -8 °C (to be required when ordering)

OPERATION IN SUMMERTIME COOLING CAPACITY

Outlet water °C	External air temperature °C								Outlet water °C
	25	28	30	32	35	38	40	42	
5	1.027	0.991	0.962	0.940	0.918	0.896	0.861	0.819	5
6	1.046	10.24	1.007	0.967	0.941	0.916	0.876	0.854	6
7	1.091	1.050	1.032	1.000	0.974	0.942	0.915	0.893	7
8	1.121	1.075	1.058	1.041	0.996	0.963	0.949	0.928	8
9	1.159	1.112	1.100	1.079	1.040	1.009	0.972	0.956	9
10	1.191	1.190	1.129	1.112	1.068	1.036	1.002	—	10
11	1.228	1.190	1.162	1.130	1.101	1.058	1.049	—	11
12	1.262	1.220	1.207	1.175	1.136	1.096	1.061	—	12
13	1.308	1.250	1.226	1.200	1.158	1.122	—	—	13
14	1.335	1.300	1.278	1.251	1.195	1.160	—	—	14
15	1.365	1.345	1.307	1.272	1.232	1.196	—	—	15

OPERATION IN WINTERTIME HEATING CAPACITY

External air °C	Water outlet temperature °C					External air °C
	30	35	40	45	50	
-4	0.627	0.614	0.609	0.599	0.581	-4
-2	0.655	0.639	0.630	0.611	0.601	-2
0	0.690	0.677	0.659	0.649	0.629	0
2	0.741	0.732	0.712	0.701	0.680	2
4	0.802	0.793	0.772	0.761	0.693	4
6	0.904	0.893	0.870	0.852	0.833	6
7	0.976	0.985	0.939	0.919	0.898	7
8	1.005	0.986	0.987	0.947	0.926	8
10	1.066	1.047	1.026	1.000	0.979	10
12	1.127	1.108	1.088	1.068	1.040	12
14	1.195	1.176	1.155	1.127	1.105	14
16	1.261	1.241	1.22	1.195	1.166	16
20	1.415	1.392	1.367	1.415	1.392	20

COMPRESSOR ABSORPTION

Outlet water °C	External air temperature °C								Outlet water °C
	25	28	30	32	35	38	40	42	
5	0.870	0.909	0.943	0.963	0.995	1.021	1.047	1.065	5
6	0.900	0.927	0.962	0.981	1.010	1.045	1.068	1.092	6
7	0.910	0.946	0.980	1.000	1.032	1.071	1.096	1.116	7
8	0.930	0.972	0.996	1.021	1.051	1.089	1.112	1.135	8
9	0.948	0.990	1.008	1.036	1.075	1.111	1.141	1.162	9
10	0.965	1.005	1.035	1.061	1.098	1.138	1.158	—	10
11	0.968	1.017	1.046	1.082	1.120	1.158	1.180	—	11
12	0.996	1.031	1.072	1.095	1.140	1.170	1.207	—	12
13	1.015	1.048	1.082	1.116	1.160	1.199	—	—	13
14	1.030	1.070	1.100	1.132	1.171	1.226	—	—	14
15	1.045	1.096	1.120	1.146	1.200	1.250	—	—	15

COMPRESSOR ABSORPTION

	Water outlet temperature °C					
	30	35	40	45	50	
-4	0.663	0.701	0.738	0.775	0.812	-4
-2	0.687	0.728	0.768	0.810	0.847	-2
0	0.706	0.753	0.799	0.843	0.887	0
2	0.729	0.778	0.828	0.874	0.922	2
4	0.749	0.803	0.856	0.906	0.956	4
6	0.770	0.826	0.883	0.938	0.990	6
7	0.780	0.839	0.897	0.953	1.008	7
8	0.789	0.850	0.910	0.969	1.025	8
10	0.807	0.872	0.936	1.000	1.060	10
12	0.826	0.895	0.963	1.030	1.095	12
14	0.843	0.916	0.989	1.061	1.131	14
16	0.861	0.938	1.015	1.091	1.166	16
20	0.909	0.994	1.076	1.16	1.24	20