

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS



RAH 3602

RAH... Series

2 refrigerant circuits - Cooling capacities from 190 to 841 kW

Water chillers suitable air-conditioning and industrial systems
Designed for external installation
Compact and packaged units, with anodized aluminium frame and peraluman panels. Painted zinc steel base frame
Operating temperatures from +15 °C to +45 °C in the standard version
Available versions:

RAH...K with ecological refrigerant R407C charge
RAH...S K silenced version with ecological refrigerant R407C charge
RAH...U K ultra silenced version with ecological refrigerant R407C charge
RAH...Ka with ecological refrigerant R134a charge
RAH...S Ka silenced version with ecological refrigerant R134a charge
RAH...U Ka ultra silenced version with ecological refrigerant R134a charge
RAH... standard version
RAH...S silenced version
RAH...U ultra silenced version

RAH...F K with ecological refrigerant R407C charge
RAH...FS K silenced version with ecological refrigerant R407C charge
RAH...FU K ultra silenced version with ecological refrigerant R407C charge
RAH...F Ka with ecological refrigerant R134a charge
RAH...FS Ka silenced version with ecological refrigerant R134a charge
RAH...FU Ka ultra silenced version with ecological refrigerant R134a charge
RAH...F free-cooling standard version
RAH...FS free-cooling silenced version
RAH...FU free-cooling ultra silenced version

Made up of:

Screw Compressors equipped with capacity steps, motor thermal protection, oil crankcase heater and phase monitor.
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 pipe 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.

Electric panel, in compliance with CE norms, provided with a main switch and protection fuses.

The cooling circuit is composed of: thermostatic expansion valve, sight glass, dehydrating filter, anti-freeze protection device, high pressure safety device, high and low pressure switches, high and low pressure gauges, non return valve on discharge, shut off valve on liquid line, shut off valve on compressors discharge.

Unit management microprocessor with the following functions: chilled water temperature regulation, check of the running parameters, auto-detection failure system, remote management and supervision.

Compressors hour counter.

Accessories

A	Amperometer
BT	Low temperature operation (-20 °C) with modulating fan speed regulation (already included in free-cooling versions)
CE	UV protection on water insulation
CS	Compressors inrush counter
DS	Star/delta
FA	Condensing coil protection filters
GP	Protection grid for the condensing coil
I1	Victaulic insulation on pump side
I2	Victaulic insulation on buffer tank side
I3	Victaulic insulation for the free-cooling version
IG	Watch card
IH	RS 485 serial interface
LI	Liquid injection (standard for R22 and R407C)
M12	Modulating capacity control for units with 2 circuits
MV	Buffer tank
OS	Safety oil flow switch
P1	Single pump group
P1H	Higher head pressure single pump group
PA	Rubber-type vibration dampers (not available when option MV is required)
PF	Safety water flow switch on evaporator
PM	Spring-type vibration dampers
PQ	Remote microprocessor
PT	Twin-pump group
PW	Part-winding
RA	Antifreeze heater on evaporator
RF	Power factor correction system cosφ > 0.9
RH	Shut-off valve on suction side
RL	Compressors overload relays
RM	Epoxy coating of condensing coil for sea environment
RP	Partial heat recovery
RR	Condensing coils with copper/copper fins
RT	Total heat recovery (not available in free-cooling version). It is necessary to order option BT.
RV	Personalized RAL paint
SC	Soundproofed compressors housing with standard material (already included in silenced versions)
SU	Soundproofed compressors housing with lead material
TE	Electronic thermostatic valve
V	Voltmeter
VB	Brine version (water temperature < 0 °C)
VS	Solenoid valve

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R407C

MODEL	RAH...K	2102	2502	2802	3302	3902	4802	5502
Cooling capacity 1)	kW	205	255	276	345	377	472	550
Absorbed power	kW	73	92	114	123	148	180	196
C.O.P	kW/kW	2,81	2,77	2,42	2,80	2,55	2,62	2,81
Screw compressors								
Quantity	n	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100						
Circuits	n	2	2	2	2	2	2	2
Nominal absorbed current	A	124	155	188	204	238	296	327
Maximum absorbed current	A	172	216	256	288	324	360	432
Inrush current	A	497	616	613	729	848	981	1.159
Inrush current with opt. PW/DS	A	304	377	418	494	585	700	828
Axial fans								
Quantity	n	6	6	6	8	8	10	12
Rotation speed	rpm	880	880	880	880	880	880	880
Motors power	kW	12	12	12	16	16	20	24
Total air flow	l/s	35.000	32.500	32.500	43.333	43.333	54.167	65.000
Total air flow	m ³ /h	126.000	117.000	117.000	156.000	156.000	195.000	234.000
Nominal absorbed current	A	24	24	24	32	32	40	48
Sound pressure level 2)	dB(A)	80	81	81	82	82	83	85
Shall and tube evaporator								
Quantity	n	1	1	1	1	1	1	1
Water flow rate	l/s	9,8	12,2	13,2	16,5	18,0	22,6	26,3
Water flow rate	m ³ /h	35,28	43,92	47,52	59,40	64,80	81,36	94,68
Pressure drop	kPa	70	56	60	58	46	35	49
Water volume	l	39	49	56	93	88	133	125
Pump Group P1								
Available pressure	kPa	107	120	114	111	121	123	98
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	5,5
Absorbed current	A	11	11	11	11	11	11	11
Inrush current	A	70	70	70	70	70	70	70
Weight	kg	91	91	91	91	91	91	91
Pump group P1H								
Available pressure	kPa	157	170	164	162	172	174	149
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105	105
Weight	kg	99	99	99	99	99	99	99
Pump group PT								
Available pressure	kPa	155	166	160	154	163	161	131
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105	105
Weight	kg	196	196	196	196	196	196	196
Hydraulic kit								
Expansion vessel	l	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	•
Electrical data								
Total absorbed power	kW	85	104	126	139	164	200	220
Total nominal absorbed current	A	148	179	212	236	270	336	375
Maximum absorbed current	A	196	240	280	320	356	400	480
Total inrush current	A	521	640	637	761	880	1.021	1.207
Total inrush current with opt. PW/DS	A	328	401	442	526	617	740	876
Dimensions								
Length	mm	5.082	5.082	5.082	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.378	3.515	3.984	4.615	4.651	6.002	6.554
Weight in operation	kg	3.417	3.563	4.040	4.708	4.738	6.136	6.679
Refrigerant charge for each circuit	kg	35	46	47	63	63	80	95
Power supply		400 V / 50 Hz / 3 Ph + T						

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

RAH... Technical data with refrigerant R407C

MODEL	RAH...SK	2102	2502	2802	3302	3902	4802
Cooling capacity 1)	kW	196	241	274	326	387	480
Absorbed power	kW	76	97	115	130	144	177
C.O.P	kW/kW	2,58	2,48	2,38	2,51	2,69	2,71
Screw compressors							
Quantity	n	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100					
Circuits	n	2	2	2	2	2	2
Nominal absorbed current	A	129	162	189	214	233	292
Maximum absorbed current	A	165	209	247	279	313	359
Inrush current	A	497	616	613	729	848	981
Inrush current with opt. PW/DS	A	304	377	418	494	585	700
Axial fans							
Quantity	n	6	6	8	8	10	12
Rotation speed	rpm	660	660	660	660	660	660
Motors power	kW	7,5	7,5	10	10	12,5	15
Total air flow	l/s	26.667	25.000	35.556	33.333	41.667	50.000
Total air flow	m ³ /h	96.000	90.000	128.000	120.000	150.000	180.000
Nominal absorbed current	A	14	14	18	18	23	28
Sound pressure level 2)	dB(A)	77	78	78	79	79	80
Shall and tube evaporator							
Quantity	n	1	1	1	1	1	1
Water flow rate	l/s	9,4	11,5	13,1	15,6	18,5	22,9
Water flow rate	m ³ /h	33,84	41,40	47,16	56,16	66,60	82,44
Pressure drop	kPa	64	50	60	52	48	36
Water volume	l	39	49	56	93	88	133
Pump Group P1							
Available pressure	kPa	115	127	115	119	117	120
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5
Absorbed current	A	11	11	11	11	11	11
Inrush current	A	70	70	70	70	70	70
Weight	kg	91	91	91	91	91	91
Pump group P1H							
Available pressure	kPa	165	177	165	170	168	172
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105
Weight	kg	99	99	99	99	99	99
Pump group PT							
Available pressure	kPa	163	174	161	164	159	158
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105
Weight	kg	196	196	196	196	196	196
Hydraulic kit							
Expansion vessel	l	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•
Buffer tanks 1500 l		---	---	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	•	•
Buffer tanks 2400 l		---	---	---	---	---	•
Electrical data							
Total absorbed power	kW	84	105	125	140	157	192
Total nominal absorbed current	A	143	176	207	232	256	320
Maximum absorbed current	A	179	223	265	297	336	387
Total inrush current	A	511	630	631	747	871	1.009
Total inrush current with opt. PW/DS	A	318	391	436	512	608	728
Dimensions							
Length	mm	5.082	5.082	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.378	3.514	4.361	4.615	5.157	6.510
Weight in operation	kg	3.417	3.563	4.417	4.708	5.245	6.643
Refrigerant charge for each circuit	kg	35	46	47	63	63	77
Power supply		400 V / 50 Hz / 3 Ph + T					

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R407C

MODEL	RAH...UK	2102	2502	2802	3302	3902	4802
Cooling capacity 1)	kW	195	240	271	331	389	444
Absorbed power	kW	77	97	116	128	143	190
C.O.P	kW/kW	2,53	2,47	2,34	2,59	2,72	2,34
Screw compressors							
Quantity	n	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100					
Circuits	n	2	2	2	2	2	2
Nominal absorbed current	A	130	163	191	212	232	311
Maximum absorbed current	A	168	210	250	281	315	351
Inrush current	A	497	616	613	729	848	981
Inrush current with opt. PW/DS	A	304	377	418	494	585	700
Axial fans							
Quantity	n	6	8	8	10	12	12
Rotation speed	rpm	530	530	530	530	530	530
Motors power	kW	4,6	6,2	6,2	7,7	9,2	9,2
Total air flow	l/s	19.167	27.778	25.556	31.944	38.333	38.333
Total air flow	m³/h	69.000	100.000	92.000	115.000	138.000	138.000
Nominal absorbed current	A	9	12	12	15	18	18
Sound pressure level 2)	dB(A)	72	74	75	76	76	77
Shall and tube evaporator							
Quantity	n	1	1	1	1	1	1
Water flow rate	l/s	9,3	11,5	13,0	15,8	18,6	21,2
Water flow rate	m³/h	33,48	41,40	46,80	56,88	66,96	76,32
Pressure drop	kPa	64	50	58	53	49	31
Water volume	l	39	49	56	93	88	133
Pump Group P1							
Available pressure	kPa	115	127	116	117	117	131
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5
Absorbed current	A	11	11	11	11	11	11
Inrush current	A	70	70	70	70	70	70
Weight	kg	91	91	91	91	91	91
Pump group P1H							
Available pressure	kPa	165	178	167	168	168	182
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105
Weight	kg	99	99	99	99	99	99
Pump group PT							
Available pressure	kPa	163	174	162	162	158	170
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105
Weight	Kg	196	196	196	196	196	196
Hydraulic kit							
Expansion vessel	l	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•
Buffer tanks 1500 l		---	•	•	•	•	•
Buffer tanks 1800 l		---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	•	•
Electrical data							
Total absorbed power	kW	82	103	122	136	152	199
Total nominal absorbed current	A	139	175	203	227	250	329
Maximum absorbed current	A	177	222	262	296	333	369
Total inrush current	A	506	628	625	744	866	999
Total inrush current with opt. PW/DS	A	313	389	430	509	603	718
Dimensions							
Length	mm	5.082	6.120	6.120	7.158	8.196	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.447	3.854	4.454	5.075	5.610	6.455
Weight in operation	kg	3.486	3.904	4.510	5.168	5.697	6.588
Refrigerant charge for each circuit	kg	45	46	61	77	91	94
Power supply							
400 V / 50 Hz / 3 Ph + T							

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R134a

MODEL	RAH...Ka	2502	2802	3202	3602	4602	5202	6002	6802	8002
Cooling capacity 1)	kW	260	290	320	348	432	465	568	608	737
Absorbed power	kW	73	88	103	126	166	188	198	244	282
C.O.P	kW/kW	3,56	3,30	3,11	2,76	2,60	2,47	2,87	2,49	2,61
Screw compressors										
Quantity	n	2	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100								
Circuits	n	2	2	2	2	2	2	2	2	2
Nominal absorbed current	A	125	148	174	206	275	314	332	398	451
Maximum absorbed current	A	196	248	288	324	364	392	428	560	620
Inrush current	A	547	609	729	848	983	1.139	1.237	1.644	1.752
Inrush current with opt. PW/DS	A	365	414	494	585	702	808	879	716	775
Axial fans										
Quantity	n	6	6	6	6	6	6	8	8	10
Rotation speed	rpm	880	880	880	880	880	880	880	880	880
Motors power	kW	12	12	12	12	12	12	16	16	20
Total air flow	l/s	35.000	35.000	35.000	35.000	32.500	32.500	43.333	43.333	54.167
Total air flow	m ³ /h	126.000	126.000	126.000	126.000	117.000	117.000	156.000	156.000	195.000
Nominal absorbed current	A	24	24	24	24	24	24	32	32	40
Sound pressure level 2)	dB(A)	81	81	81	81	82	82	83	83	85
Shall and tube evaporator										
Quantity	n	1	1	1	1	1	1	1	1	1
Water flow rate	l/s	12,4	13,9	15,3	16,6	20,6	22,2	27,1	29,0	35,2
Water flow rate	m ³ /h	44,72	49,88	55,04	59,86	74,30	79,98	97,70	104,58	126,76
Pressure drop	kPa	55	59	72	43	52	28	42	40	38
Water volume	l	63	80	80	90	114	162	162	184	452
Pump Group P1										
Available pressure	kPa	121	114	98	127	108	131	102	196	190
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	5,5	15	15
Absorbed current	A	11	11	11	11	11	11	11	27	27
Inrush current	A	70	70	70	70	70	70	70	194	194
Weight	kg	91	91	91	91	91	91	91	160	160
Pump group P1H										
Available pressure	kPa	171	165	148	178	160	183	154	305	297
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	22	22
Absorbed current	A	15	15	15	15	15	15	15	39	39
Inrush current	A	105	105	105	105	105	105	105	273	273
Weight	kg	99	99	99	99	99	99	99	192	192
Pump group PT										
Available pressure	kPa	167	160	142	170	148	170	135	298	288
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	22	22
Absorbed current	A	15	15	15	15	15	15	15	39	39
Inrush current	A	105	105	105	105	105	105	105	273	273
Weight	Kg	196	196	196	196	196	196	196	379	379
Hydraulic kit										
Expansion vessel	l	25	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	---	---	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	---	---	---	•
Buffer tanks 2400 l		---	---	---	---	---	---	---	---	---
Electrical data										
Total absorbed power	kW	85	100	115	138	178	200	214	260	302
Total nominal absorbed current	A	149	172	198	230	299	338	364	430	491
Maximum absorbed current	A	220	272	312	348	388	416	460	592	660
Total inrush current	A	571	633	753	872	1.007	1.163	1.269	1.676	1.792
Total inrush current with opt. PW/DS	A	389	438	518	609	726	832	911	748	815
Dimensions										
Length	mm	5.082	5.082	5.082	5.082	5.082	5.082	6.120	6.120	7.158
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	4.012	4.033	4.056	4.133	5.038	5.249	5.778	6.819	7.518
Weight in operation	kg	4.075	4.113	4.136	4.223	5.152	5.410	5.940	7.003	7.970
Refrigerant charge for each circuit	kg	38	40	40	41	55	61	75	78	88
Power supply	400 V / 50 Hz / 3 Ph + T									

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R134a

MODEL	RAH...SKa	2202	2502	2802	3202	3602	4602	5202	6002	6802	8002
Cooling capacity 1)	kW	218	252	279	306	329	431	464	534	633	747
Absorbed power	kW	63	77	92	110	134	166	188	212	234	277
C.O.P	kW/kW	3,46	3,27	3,03	2,78	2,46	2,60	2,47	2,52	2,71	2,70
Screw compressors											
Quantity	n	2	2	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100									
Circuits	n	2	2	2	2	2	2	2	2	2	2
Nominal absorbed current	A	108	131	156	184	218	276	315	353	382	445
Maximum absorbed current	A	151	189	241	281	315	353	381	414	546	620
Inrush current	A	434	547	609	729	848	983	1.139	1.237	1.644	1.752
Inrush current with opt. PW/DS	A	285	365	414	494	585	702	808	879	716	775
Axial fans											
Quantity	n	6	6	6	6	6	8	8	8	10	12
Rotation speed	rpm	660	660	660	660	660	660	660	660	660	660
Motors power	kW	7,5	7,5	7,5	7,5	7,5	10	10	10	12,5	15
Total air flow	l/s	26.667	26.667	26.667	26.667	26.667	35.556	35.556	33.333	41.667	50.000
Total air flow	m³/h	96.000	96.000	96.000	96.000	96.000	128.000	128.000	120.000	150.000	180.000
Nominal absorbed current	A	13,8	13,8	13,8	13,8	13,8	18,4	18,4	18,4	23	27,6
Sound pressure level 2)	dB(A)	76	76	76	77	78	79	80	80	81	82
Shall and tube evaporator											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow rate	l/s	10,4	12,0	13,3	14,6	15,7	20,6	22,2	25,5	30,2	35,7
Water flow rate	m³/h	37,50	43,34	47,99	52,63	56,59	74,13	79,81	91,85	108,88	128,48
Pressure drop	kPa	39	52	55	65	39	52	28	37	44	39
Water volume	l	63	63	80	80	90	114	162	162	184	452
Pump Group P1											
Available pressure	kPa	141	125	120	106	133	109	131	112	191	188
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	15	15
Absorbed current	A	11	11	11	11	11	11	11	11	27	27
Inrush current	A	70	70	70	70	70	70	70	70	194	194
Weight	kg	91	91	91	91	91	91	91	91	160	160
Pump group P1H											
Available pressure	kPa	192	175	170	156	184	160	183	164	299	296
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	22	22
Absorbed current	A	15	15	15	15	15	15	15	15	39	39
Inrush current	A	105	105	105	105	105	105	105	105	273	273
Weight	kg	99	99	99	99	99	99	99	99	192	192
Pump group PT											
Available pressure	kPa	189	172	166	151	178	149	170	147	292	286
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	22	22
Absorbed current	A	15	15	15	15	15	15	15	15	39	39
Inrush current	A	105	105	105	105	105	105	105	105	273	273
Weight	Kg	196	196	196	196	196	196	196	196	379	379
Hydraulic kit											
Expansion vessel	l	25	25	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	---	•	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	---	---	---	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	---	---	---	•
Electrical data											
Total absorbed power	kW	71	85	100	118	142	176	198	222	247	292
Total nominal absorbed current	A	122	145	170	198	232	294	333	371	405	473
Maximum absorbed current	A	165	203	255	295	328	371	399	433	569	648
Total inrush current	A	448	561	623	743	861	1.001	1.157	1.256	1.667	1.780
Total inrush current with opt. PW/DS	A	299	379	428	508	598	720	826	898	739	803
Dimensions											
Length	mm	5.082	5.082	5.082	5.082	5.082	6.120	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.989	4.012	4.033	4.056	4.133	5.416	5.626	5.778	7.325	8.026
Weight in operation	kg	4.052	4.075	4.113	4.136	4.223	5.529	5.787	5.940	7.509	8.478
Refrigerant charge for each circuit	kg	38	38	40	40	41	55	61	75	92	101
Power supply		400 V / 50 Hz / 3 Ph + T									

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R134a

MODEL	RAH...UKa	1802	2202	2502	2802	3202	3602	4602	5202	6002	6802
Cooling capacity 1)	kW	199	211	242	267	289	326	427	483	547	633
Absorbed power	kW	53	66	81	98	117	136	168	180	207	234
C.O.P	kW/kW	3,75	3,20	2,99	2,72	2,47	2,40	2,54	2,68	2,64	2,71
Screw compressors											
Quantity	n	2	2	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100									
Circuits	n	2	2	2	2	2	2	2	2	2	2
Nominal absorbed current	A	91	113	138	165	195	220	278	302	345	382
Maximum absorbed current	A	108	126	154	192	242	282	317	355	414	546
Inrush current	A	361	403	434	547	609	729	848	983	1.237	1.644
Inrush current with opt. PW/DS	A	209	234	285	365	414	494	585	702	879	716
Axial fans											
Quantity	n	6	6	6	6	6	6	8	10	10	12
Rotation speed	rpm	530	530	530	530	530	530	530	530	530	530
Motors power	kW	4,6	4,6	4,6	4,6	4,6	4,6	6,2	7,7	7,7	9,2
Total air flow	l/s	20.833	20.833	20.833	20.833	20.833	19.167	25.556	34.722	31.944	38.333
Total air flow	m ³ /h	75.000	75.000	75.000	75.000	75.000	69.000	92.000	125.000	115.000	138.000
Nominal absorbed current	A	9	9	9	9	9	9	12	15	15	18
Sound pressure level 2)	dB(A)	73	73	73	73	74	75	76	77	77	78
Shall and tube evaporator											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow rate	l/s	9,5	10,1	11,6	12,8	13,8	15,6	20,4	23,1	26,1	30,2
Water flow rate	m ³ /h	34,23	36,29	41,62	45,92	49,71	56,07	73,44	83,08	94,08	108,88
Pressure drop	kPa	32	36	48	50	58	38	51	30	39	44
Water volume	l	63	63	63	80	80	90	114	162	162	184
Pump Group P1											
Available pressure	kPa	149	144	130	126	115	135	110	126	109	191
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	15
Absorbed current	A	11	11	11	11	11	11	11	11	11	26,5
Inrush current	A	70	70	70	70	70	70	70	70	70	194
Weight	kg	91	91	91	91	91	91	91	91	91	160
Pump group P1H											
Available pressure	kPa	199	194	180	177	165	185	161	178	160	299
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	22
Absorbed current	A	15	15	15	15	15	15	15	15	15	39
Inrush current	A	105	105	105	105	105	105	105	105	105	273
Weight	kg	99	99	99	99	99	99	99	99	99	192
Pump group PT											
Available pressure	kPa	197	192	177	172	160	179	150	164	142	292
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	22
Absorbed current	A	15	15	15	15	15	15	15	15	15	39
Inrush current	A	105	105	105	105	105	105	105	105	105	273
Weight	Kg	196	196	196	196	196	196	196	196	196	379
Hydraulic kit											
Expansion vessel	l	25	25	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	---	---	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	---	---	---	•
Electrical data											
Total absorbed power	kW	58	71	86	103	122	141	174	188	215	243
Total nominal absorbed current	A	100	122	147	174	204	229	290	317	360	400
Maximum absorbed current	A	117	135	163	201	251	291	329	370	429	564
Total inrush current	A	370	412	443	556	618	738	860	998	1.252	1.662
Total inrush current with opt. PW/DS	A	218	243	294	374	423	503	597	717	894	734
Dimensions											
Length	mm	5.082	5.082	5.082	5.082	5.082	5.082	6.120	7.158	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.529	3.961	3.984	4.005	4.028	4.202	5.508	6.056	6.238	7.777
Weight in operation	kg	3.592	4.024	4.047	4.085	4.108	4.292	5.621	6.218	6.400	7.962
Refrigerant charge for each circuit	kg	38	38	38	40	40	52	69	71	89	105
Power supply	400 V / 50 Hz / 3 Ph + T										

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R22

MODEL	RAH...	2802	3102	3602	4302	5102	5902	7002	8802
Cooling capacity 1)	kW	289	311	366	413	508	574	679	841
Absorbed power	kW	92	106	127	151	169	205	233	297
C.O.P	kW/kW	3,14	2,93	2,88	2,74	3,01	2,80	2,91	2,83
Screw compressors									
Quantity	n	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100							
Circuits	n	2	2	2	2	2	2	2	2
Nominal absorbed current	A	154	177	209	243	281	340	385	475
Maximum absorbed current	A	216	256	288	324	360	432	492	660
Inrush current	A	616	613	729	848	981	1.159	1.269	1.772
Inrush current with opt. PW/DS	A	377	418	494	585	700	828	911	795
Axial fans									
Quantity	n	6	6	6	6	8	10	10	12
Rotation speed	rpm	880	880	880	880	880	880	880	880
Motors power	kW	12	12	12	12	16	20	20	24
Total air flow	l/s	35.000	35.000	32.500	32.500	43.333	58.333	54.167	65.000
Total air flow	m³/h	126.000	126.000	117.000	117.000	156.000	210.000	195.000	234.000
Nominal absorbed current	A	24	24	24	24	32	40	40	48
Sound pressure level 2)	dB(A)	81	81	81	81	82	84	85	85
Shall and tube evaporator									
Quantity	n	1	1	1	1	1	1	1	1
Water flow rate	l/s	13,8	14,8	17,5	19,7	24,3	27,4	32,4	40,2
Water flow rate	m³/h	49,68	53,28	63,00	70,92	87,48	98,64	116,64	144,72
Pressure drop	kPa	41	47	43	27	42	47	44	54
Water volume	l	93	93	88	133	125	114	222	184
Pump Group P1									
Available pressure	kPa	134	126	125	138	111	96	188	163
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	15	15
Absorbed current	A	11	11	11	11	11	11	27	27
Inrush current	A	70	70	70	70	70	70	194	194
Weight	kg	91	91	91	91	91	91	160	160
Pump group P1H									
Available pressure	kPa	185	176	176	189	162	148	296	270
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	22	22
Absorbed current	A	15	15	15	15	15	15	39	39
Inrush current	A	105	105	105	105	105	105	273	273
Weight	kg	99	99	99	99	99	99	192	192
Pump group PT									
Available pressure	kPa	180	170	168	179	147	128	288	257
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	22	22
Absorbed current	A	15	15	15	15	15	15	39	39
Inrush current	A	105	105	105	105	105	105	273	273
Weight	Kg	196	196	196	196	196	196	379	379
Hydraulic kit									
Expansion vessel	l	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	---	•
Electrical data									
Total absorbed power	kW	104	118	139	163	185	225	253	321
Total nominal absorbed current	A	178	201	233	267	313	380	425	523
Maximum absorbed current	A	240	280	312	348	392	472	532	708
Total inrush current	A	640	637	753	872	1.013	1.199	1.309	1.820
Total inrush current with opt. PW/DS	A	401	442	518	609	732	868	951	843
Dimensions									
Length	mm	5.082	5.082	5.082	5.082	6.120	7.158	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.551	4.000	4.121	4.265	5.517	5.916	6.284	7.852
Weight in operation	kg	3.645	4.093	4.209	4.398	5.642	6.030	6.506	8.037
Refrigerant charge for each circuit	kg	38	38	49	52	68	66	86	105
Power supply		400 V / 50 Hz / 3 Ph + T							

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R22

MODEL	RAH...S	2202	2802	3102	3602	4302	5102	5902	7002
Cooling capacity 1)	kW	229	278	297	349	433	483	577	687
Absorbed power	kW	72	96	111	133	145	177	204	231
C.O.P	kW/kW	3,18	2,90	2,68	2,62	2,99	2,73	2,83	2,97
Screw compressors									
Quantity	n	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100							
Circuits	n	2	2	2	2	2	2	2	2
Nominal absorbed current	A	123	160	184	218	234	293	338	381
Maximum absorbed current	A	165	209	249	281	315	351	421	478
Inrush current	A	497	616	613	729	848	981	1.159	1.269
Inrush current with opt. PW/DS	A	304	377	418	494	585	700	828	911
Axial fans									
Quantity	n	6	6	6	6	8	8	10	12
Rotation speed	rpm	660	660	660	660	660	660	660	660
Motors power	kW	7,5	7,5	7,5	7,5	10	10	12,5	15
Total air flow	l/s	26.667	26.667	26.667	25.000	33.333	33.333	41.667	50.000
Total air flow	m³/h	96.000	96.000	96.000	90.000	120.000	120.000	150.000	180.000
Nominal absorbed current	A	14	14	14	14	18	18	23	28
Sound pressure level 2)	dB(A)	75	75	76	76	77	79	81	82
Shell and tube evaporator									
Quantity	n	1	1	1	1	1	1	1	1
Water flow rate	l/s	10,9	13,3	14,2	16,7	20,7	23,1	27,6	32,8
Water flow rate	m³/h	39,24	47,88	51,12	60,12	74,52	83,16	99,36	118,08
Pressure drop	kPa	46	38	43	39	30	38	47	45
Water volume	l	49	93	93	88	133	125	114	222
Pump Group P1									
Available pressure	kPa	133	138	131	131	133	118	95	186
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	5,5	15
Absorbed current	A	11	11	11	11	11	11	11	27
Inrush current	A	70	70	70	70	70	70	70	194
Weight	kg	91	91	91	91	91	91	91	160
Pump group P1H									
Available pressure	kPa	183	189	182	182	184	170	147	294
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	22
Absorbed current	A	15	15	15	15	15	15	15	39
Inrush current	A	105	105	105	105	105	105	105	273
Weight	kg	99	99	99	99	99	99	99	192
Pump group PT									
Available pressure	kPa	180	184	176	174	173	156	127	---
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	22	---
Absorbed current	A	15	15	15	15	15	15	39	---
Inrush current	A	105	105	105	105	105	105	273	---
Weight	Kg	196	196	196	196	196	196	379	---
Hydraulic kit									
Expansion vessel	l	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	---	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	---	•
Electrical data									
Total absorbed power	kW	80	104	119	141	155	187	217	246
Total nominal absorbed current	A	137	174	198	232	252	311	361	409
Maximum absorbed current	A	179	223	263	295	333	369	444	506
Total inrush current	A	511	630	627	743	866	999	1.182	1.297
Total inrush current with opt. PW/DS	A	318	391	432	508	603	718	851	939
Dimensions									
Length	mm	5.082	5.082	5.082	5.082	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.417	3.551	4.000	4.121	4.771	5.517	6.075	6.792
Weight in operation	kg	3.466	3.645	4.093	4.209	4.905	5.642	6.189	7.014
Refrigerant charge for each circuit	kg	38	38	38	49	66	68	83	99
Power supply		400 V / 50 Hz / 3 Ph + T							

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R22

MODEL	RAH...U	2202	2802	3102	3602	4302	5102	5902
Cooling capacity 1)	kW	221	276	294	349	423	490	577
Absorbed power	kW	75	96	112	133	148	175	204
C.O.P	kW/kW	2,95	2,88	2,63	2,62	2,86	2,80	2,83
Screw compressors								
Quantity	n	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100						
Circuits	n	2	2	2	2	2	2	2
Nominal absorbed current	A	127	161	185	219	238	289	338
Maximum absorbed current	A	168	212	252	282	317	353	423
Inrush current	A	497	616	613	729	848	981	1.159
Inrush current with opt. PW/DS	A	304	377	418	494	485	700	828
Axial fans								
Quantity	n	6	6	6	8	10	10	12
Rotation speed	rpm	530	530	530	530	530	530	530
Motors power	kW	4,6	4,6	4,6	6,2	7,7	7,7	9,2
Total air flow	l/s	20.833	19.167	19.167	27.778	34.722	31.944	38.333
Total air flow	m ³ /h	75.000	69.000	69.000	100.000	125.000	115.000	138.000
Nominal absorbed current	A	9	9	9	12	15	15	18
Sound pressure level 2)	dB(A)	72	72	73	73	74	76	77
Shall and tube evaporator								
Quantity	n	1	1	1	1	1	1	1
Water flow rate	l/s	10,6	13,2	14,1	16,7	20,2	23,4	27,6
Water flow rate	m ³ /h	38,16	47,52	50,76	60,12	72,72	84,24	99,36
Pressure drop	kPa	43	37	42	39	28	39	47
Water volume	l	49	93	93	88	133	125	114
Pump Group P1								
Available pressure	kPa	137	139	132	131	136	116	95
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	5,5
Absorbed current	A	11	11	11	11	11	11	11
Inrush current	A	70	70	70	70	70	70	70
Weight	kg	91	91	91	91	91	91	91
Pump group P1H								
Available pressure	kPa	187	190	183	182	187	168	147
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105	105
Weight	kg	99	99	99	99	99	99	99
Pump group PT								
Available pressure	kPa	184	185	178	174	176	153	127
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105	105
Weight	Kg	196	196	196	196	196	196	196
Hydraulic kit								
Expansion vessel	l	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	•
Electrical data								
Total absorbed power	kW	80	101	117	139	156	183	213
Total nominal absorbed current	A	136	170	194	231	253	304	356
Maximum absorbed current	A	177	221	261	294	332	368	441
Total inrush current	A	506	625	622	741	863	996	1.177
Total inrush current with opt. PW/DS	A	313	386	427	506	500	715	846
Dimensions								
Length	mm	5.082	5.082	5.082	6.120	7.158	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.389	3.621	4.069	4.462	5.073	5.977	6.528
Weight in operation	kg	3.439	3.714	4.162	4.549	5.206	6.102	6.641
Refrigerant charge for each circuit	kg	36	49	49	49	63	82	97
Power supply								
400 V / 50 Hz / 3 Ph + T								

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R407C

MODEL	RAH...FK	2102	2502	2802	3302	3902	4802	5502
Cooling capacity 1)	kW	193	239	270	325	385	478	515
Absorbed power	kW	76	95,8	114	128	148	174	204
C.O.P	kW/kW	2,54	2,49	2,37	2,54	2,60	2,75	2,52
Cooling capacity in free cooling 4)	kW	216	208	282	270	344	416	416
Screw compressors								
Quantity	n	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100						
Circuits	n	2	2	2	2	2	2	2
Nominal absorbed current	A	129	160	188	212	230	288	339
Maximum absorbed current	A	172	216	256	288	324	360	432
Inrush current	A	497	616	613	729	848	981	1159
Inrush current with opt. PW/DS	A	304	377	418	494	585	700	828
Axial fans								
Quantity	n	6	6	8	8	10	12	12
Rotation speed	rpm	880	880	880	880	880	880	880
Motors power	kW	12	12	16	16	20	24	24
Total air flow	l/s	29.167	27.500	38.889	36.667	45.833	55.000	55.000
Total air flow	m ³ /h	105.000	99.000	140.000	132.000	165.000	198.000	198.000
Nominal absorbed current	A	24	24	32	32	40	48	48
Sound pressure level 2)	dB(A)	80	81	82	82	83	84	85
Shall and tube evaporator								
Quantity	n	1	1	1	1	1	1	1
Water flow rate 1)	l/s	9,9	12,2	13,8	16,6	19,7	24,4	26,3
Water flow rate 1)	m ³ /h	35,46	43,92	49,68	59,76	70,92	87,84	94,68
Pressure drop	kPa	78	62	73	64	60	45	54
Free cooling pressure drop	kPa	178	174	126	127	149	144	161
Water circuit volume	l	163	173	222	259	296	383	375
Pump Group P1								
Available pressure 1)	kPa	132	134	180	175	147	142	120
Motor power	kW	11	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134	134
Pump group P1H								
Available pressure 1)	kPa	218	220	265	261	234	229	208
Motor power	kW	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147	147
Pump group PT								
Available pressure 1)	kPa	215	216	261	254	224	215	191
Motor power	kW	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194
Weight	kg	294	294	294	294	294	294	294
Hydraulic kit								
Expansion vessel	l	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	•	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	---	•	•
Electrical data								
Total absorbed power	kW	88	108	130	144	168	198	228
Total nominal absorbed current	A	153	184	220	244	270	336	387
Maximum absorbed current	A	196	240	288	320	364	408	480
Total inrush current	A	521	640	645	761	888	1.029	1.207
Total inrush current with opt. PW/DS	A	328	401	450	526	625	748	876
Dimensions								
Length	mm	5.082	5.082	6.120	6.120	7.158	8.196	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.714	3.850	4.854	5.107	5.769	7.239	7.283
Weight in operation	kg	3.876	4.023	5.076	5.366	6.064	7.622	7.658
Refrigerant charge for each circuit	kg	35	46	47	63	77	94	95
Power supply					400 V / 50 Hz / 3 Ph + T			

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - unit's inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R407C

MODEL	RAH...FSK	2102	2502	2802	3302	3902	4802
Cooling capacity 1)	kW	195	235	272	332	360	447
Absorbed power	kW	75	97,3	113,2	125,4	150,7	185,1
C.O.P	kW/kW	2,60	2,42	2,40	2,65	2,39	2,41
Cooling capacity in free cooling 4)	kW	171	229	223	283	283	342
Screw compressors							
Quantity	n	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100					
Circuits	n	2	2	2	2	2	2
Nominal absorbed current	A	127	162	187	208	243	304
Maximum absorbed current	A	172	216	256	288	324	360
Inrush current	A	497	616	613	729	848	981
Inrush current with opt. PW/DS	A	304	377	418	494	585	700
Axial fans							
Quantity	n	6	8	8	10	10	12
Rotation speed	rpm	660	660	660	660	660	660
Motors power	kW	8	10	10	13	13	15
Total air flow	l/s	20.833	28.889	27.778	34.722	34.722	41.667
Total air flow	m³/h	75.000	104.000	100.000	125.000	125.000	150.000
Nominal absorbed current	A	14	18	18	23	23	28
Sound pressure level 2)	dB(A)	76	78	78	79	79	80
Shell and tube evaporator							
Quantity	n	1	1	1	1	1	1
Water flow rate 1)	l/s	9,9	12,0	13,9	17,0	18,4	22,8
Water flow rate 1)	m³/h	35,46	43,31	50,04	61,02	66,28	82,22
Pressure drop	kPa	80	60	74	67	53	40
Free cooling pressure drop	kPa	161	130	121	135	125	117
Water circuit volume	l	163	215	222	301	296	383
Pump Group P1							
Available pressure 1)	kPa	149	178	184	166	174	172
Motor power	kW	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134
Pump group P1H							
Available pressure 1)	kPa	235	264	270	252	260	260
Motor power	kW	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147
Pump group PT							
Available pressure 1)	kPa	232	260	265	245	252	247
Motor power	kW	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194
Weight	kg	294	294	294	294	294	294
Hydraulic kit							
Expansion vessel	l	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•
Buffer tanks 1500 l		---	•	•	•	•	•
Buffer tanks 1800 l		---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	---	•
Electrical data							
Total absorbed power	kW	83	107	123	138	164	200
Total nominal absorbed current	A	141	180	205	231	266	332
Maximum absorbed current	A	186	234	274	311	347	388
Total inrush current	A	511	634	631	752	871	1.009
Total inrush current with opt. PW/DS	A	318	395	436	517	608	728
Dimensions							
Length	mm	5.082	6.120	6.120	7.158	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.810	4.383	4.983	5.733	5.769	7.239
Weight in operation	kg	3.973	4.599	5.205	6.034	6.064	7.622
Refrigerant charge for each circuit	kg	45	46	61	77	77	94
Power supply				400 V / 50 Hz / 3 Ph + T			

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - units inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R407C

MODEL	RAH...FUK	2102	2502	2802	3302	3902
Cooling capacity 1)	kW	194	243	275	333	362
Absorbed power	kW	75,5	94,5	112,1	125	150,2
C.O.P	kW/kW	2,57	2,57	2,45	2,66	2,41
Cooling capacity in free cooling 4)	kW	194	247	234	283	283
Screw compressors						
Quantity	n	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6
Continuous control capacity (option)	%			0 - 12 ÷ 100		
Circuits	n	2	2		2	2
Nominal absorbed current	A	128	158	185	207	242
Maximum absorbed current	A	172	216	256	288	324
Inrush current	A	497	616	613	729	848
Inrush current with opt. PW/DS	A	304	377	418	494	585
Axial fans						
Quantity	n	8	10	10	12	12
Rotation speed	rpm	530	530	530	530	530
Motors power	kW	6	8	8	9	9
Total air flow	l/s	22.778	28.472	26.389	31.667	31.667
Total air flow	m ³ /h	82.000	102.500	95.000	114.000	114.000
Nominal absorbed current	A	12	15	15	18	18
Sound pressure level 2)	dB(A)	73	75	75	76	76
Shell and tube evaporator						
Quantity	n	1	1	1	1	1
Water flow rate 1)	l/s	9,9	12,4	14,1	17,0	18,5
Water flow rate 1)	m ³ /h	35,75	44,71	50,58	61,24	66,56
Pressure drop	kPa	79	64	75	68	53
Free cooling pressure drop	kPa	133	141	126	137	128
Water circuit volume	l	205	257	264	343	338
Pump Group P1						
Available pressure 1)	kPa	178	167	179	164	171
Motor power	kW	11	11	11	11	11
Absorbed current	A	20	20	20	20	20
Inrush current	A	170	170	170	170	170
Weight	kg	134	134	134	134	134
Pump group P1H						
Available pressure 1)	kPa	263	252	265	250	257
Motor power	kW	15	15	15	15	15
Absorbed current	A	27	27	27	27	27
Inrush current	A	194	194	194	194	194
Weight	kg	147	147	147	147	147
Pump group PT						
Available pressure 1)	kPa	260	249	260	243	249
Motor power	kW	15	15	15	15	15
Absorbed current	A	27	27	27	27	27
Inrush current	A	194	194	194	194	194
Weight	kg	294	294	294	294	294
Hydraulic kit						
Expansion vessel	l	25	25	25	25	25
Quantity	n.	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•
Buffer tanks 1500 l		•	•	•	•	•
Buffer tanks 1800 l		---	•	•	•	•
Buffer tanks 2400 l		---	---	---	•	•
Electrical data						
Total absorbed power	kW	82	103	120	134	159
Total nominal absorbed current	A	140	173	200	225	260
Maximum absorbed current	A	184	231	271	306	342
Total inrush current	A	509	631	628	747	866
Total inrush current with opt. PW/DS	A	316	392	433	512	603
Dimensions						
Length	mm	6.120	7.158	7.158	8.196	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	4.307	4.933	5.563	6.303	6.339
Weight in operation	kg	4.512	5.191	5.827	6.646	6.676
Refrigerant charge for each circuit	kg	45	57	75	90	91
Power supply				400 V / 50 Hz / 3 Ph + T		

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - unit's inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R134a

MODEL	RAH...FKa	2202	2502	2802	3202	3602	4602	5202	6002	6802	8002
Cooling capacity 1)	kW	215	248	275	301	324	423	492	529	628	738
Absorbed power	kW	62,7	76,4	91,9	108,9	133,6	165,8	172,6	209,2	230,2	273,9
C.O.P	kW/kW	3,43	3,25	2,99	2,76	2,43	2,55	2,85	2,53	2,73	2,69
Cooling capacity in free cooling 4)	kW	216	216	216	216	216	282	270	270	344	416
Screw compressors											
Quantity	n	2	2	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100									
Circuits	n	2	2	2	2	2	2	2	2	2	2
Nominal absorbed current	A	108	130	155	183	217	275	291	348	377	440
Maximum absorbed current	A	158	196	248	288	324	364	392	428	560	620
Inrush current	A	434	547	609	729	848	983	1.139	1.237	1.644	1.752
Inrush current with opt. PW/DS	A	285	365	414	494	585	702	808	879	716	775
Axial fans											
Quantity	n	6	6	6	6	6	8	8	8	10	12
Rotation speed	rpm	880	880	880	880	880	880	880	880	880	880
Motors power	kW	12	12	12	12	12	16	16	16	20	24
Total air flow	l/s	29.167	29.167	29.167	29.167	29.167	38.889	36.667	36.667	45.833	55.000
Total air flow	m³/h	105.000	105.000	105.000	105.000	105.000	140.000	132.000	132.000	165.000	198.000
Nominal absorbed current	A	24	24	24	24	24	32	32	32	40	48
Sound pressure level 2)	dB(A)	81	81	81	81	82	82	83	83	85	85
Shall and tube evaporator											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	11,0	12,7	14,1	15,4	16,6	21,6	25,2	27,0	32,1	37,7
Water flow rate 1)	m³/h	39,57	45,64	50,61	55,40	59,63	77,85	90,55	97,36	115,58	135,82
Pressure drop	kPa	48	63	67	80	47	63	40	46	54	56
Free cooling pressure drop	kPa	150	181	158	178	145	125	110	92	123	145
Water circuit volume	l	187	187	204	204	214	280	328	328	392	702
Pump Group P1											
Available pressure 1)	kPa	159	127	148	126	157	168	175	189	143	103
Motor power	kW	11	11	11	11	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134	134	134	134	134
Pump group P1H											
Available pressure 1)	kPa	245	212	233	212	243	255	263	277	232	193
Motor power	kW	15	15	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147	147	147	147	147
Pump group PT											
Available pressure 1)	kPa	242	208	229	206	237	244	248	259	208	184
Motor power	kW	15	15	15	15	15	15	15	15	15	22
Absorbed current	A	27	27	27	27	27	27	27	27	27	39
Inrush current	A	194	194	194	194	194	194	194	194	194	273
Weight	kg	294	294	294	294	294	294	294	294	294	192
Hydraulic kit											
Expansion vessel	l	25	25	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	---	---	---	---	---	---
Buffer tanks 1800 l		---	---	---	---	---	---	---	---	---	---
Buffer tanks 2400 l		---	---	---	---	---	---	---	---	---	---
Electrical data											
Total absorbed power	kW	75	88	104	121	146	182	189	225	250	298
Total nominal absorbed current	A	132	154	179	207	241	307	323	380	417	488
Maximum absorbed current	A	182	220	272	312	348	396	424	460	600	668
Total inrush current	A	458	571	633	753	872	1.015	1.171	1.269	1.684	1.800
Total inrush current with opt. PW/DS	A	309	389	438	518	609	734	840	911	756	823
Dimensions											
Length	mm	5.082	5.082	5.082	5.082	5.082	6.120	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	4.325	4.348	4.368	4.391	4.469	5.908	6.247	6.270	7.937	8.755
Weight in operation	kg	4.512	4.535	4.573	4.596	4.682	6.187	6.575	6.598	8.329	9.457
Refrigerant charge for each circuit	kg	38	38	40	40	41	55	75	75	92	101
Power supply											
400 V / 50 Hz / 3 Ph + T											

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - units inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R134a

MODEL	RAH...FSKa	1802	2202	2502	2802	3202	3602	4602	5202	6002	6802
Cooling capacity 1)	kW	197	208	237	261	282	326	428	462	549	633
Absorbed power	kW	53	66,2	81,3	98,2	117	132,7	163,5	185,3	201,2	228
C.O.P	kW/kW	3,72	3,14	2,92	2,66	2,41	2,46	2,62	2,49	2,73	2,78
Cooling capacity in free cooling 4)	kW	176	176	176	176	176	171	223	223	283	342
Screw compressors											
Quantity	n	2	2	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100									
Circuits	n	2	2	2	2	2	2	2	2	2	2
Nominal absorbed current	A	91	113	138	165	196	216	272	311	336	373
Maximum absorbed current	A	130	158	196	248	288	324	364	392	428	560
Inrush current	A	403	434	547	609	729	848	983	1.139	1.237	1.644
Inrush current with opt. PW/DS	A	234	285	365	414	494	585	702	808	879	716
Axial fans											
Quantity	n	6	6	6	6	6	6	8	8	10	12
Rotation speed	rpm	660	660	660	660	660	660	660	660	660	660
Motors power	kW	8	8	8	8	8	8	10	10	13	15
Total air flow	l/s	21.667	21.667	21.667	21.667	21.667	21.667	20.833	27.778	27.778	41.667
Total air flow	m³/h	78.000	78.000	78.000	78.000	78.000	78.000	75.000	100.000	100.000	150.000
Nominal absorbed current	A	14	14	14	14	14	14	18	18	23	27,6
Sound pressure level 2)	dB(A)	76	76	76	77	78	78	79	79	81	81
Shall and tube evaporator											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	10,1	10,6	12,1	13,3	14,4	16,7	21,9	23,6	28,1	32,4
Water flow rate 1)	m³/h	36,26	38,28	43,62	48,03	51,90	60,00	78,77	85,03	101,04	116,50
Pressure drop	kPa	40	45	58	60	70	48	64	35	49	55
Free cooling pressure drop	kPa	115	125	151	129	144	126	121	93	101	127
Water circuit volume	l	187	187	187	204	204	214	280	328	370	434
Pump Group P1											
Available pressure 1)	kPa	195	185	157	177	161	176	171	195	177	138
Motor power	kW	11	11	11	11	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134	134	134	134	134
Pump group P1H											
Available pressure 1)	kPa	280	270	242	263	247	262	258	282	265	227
Motor power	kW	15	15	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147	147	147	147	147
Pump group PT											
Available pressure 1)	kPa	278	268	239	259	242	256	247	269	247	202
Motor power	kW	15	15	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194	194	194
Weight	kg	294	294	294	294	294	294	294	294	294	294
Hydraulic kit											
Expansion vessel	l	25	25	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	---	---	---	---	---	---
Buffer tanks 1800 l		---	---	---	---	---	---	---	---	---	---
Buffer tanks 2400 l		---	---	---	---	---	---	---	---	---	---
Electrical data											
Total absorbed power	kW	61	74	89	106	125	141	174	195	214	243
Total nominal absorbed current	A	105	127	152	179	210	230	290	329	359	401
Maximum absorbed current	A	144	172	210	262	301	337	382	410	451	588
Total inrush current	A	417	448	561	623	742	861	1.001	1.157	1.260	1.672
Total inrush current with opt. PW/DS	A	248	299	379	428	507	598	720	826	902	744
Dimensions											
Length	mm	5.082	5.082	5.082	5.082	5.082	5.082	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.892	4.325	4.348	4.368	4.391	4.565	6.037	6.247	6.896	8.562
Weight in operation	kg	4.079	4.512	4.535	4.573	4.596	4.779	6.316	6.575	7.266	8.996
Refrigerant charge for each circuit	kg	38	38	38	40	40	52	69	75	89	105
Power supply											
400 V / 50 Hz / 3 Ph + T											

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C
 2) Measured at 1 m in open field (ISO 3746)
 3) Oil and refrigerant charge included
 4) Free-cooling work mode: air 5 °C - unit's inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R134a

MODEL	RAH...FUKa	1502	1802	2202	2502	2802	3202	3602	4602	5202	6002
Cooling capacity 1)	kW	155	191	201	227	248	281	324	414	472	547
Absorbed power	kW	41,4	55,6	69,7	86	104,5	117,6	133,4	169,4	181,2	201,7
C.O.P	kW/kW	3,74	3,44	2,88	2,64	2,37	2,39	2,43	2,44	2,60	2,71
Cooling capacity in free cooling 4)	kW	149	149	149	149	149	141	194	247	234	283
Screw compressors											
Quantity	n	2	2	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100									
Circuits	n	2	2	2	2	2	2	2	2	2	2
Nominal absorbed current	A	74	95	119	145	175	197	217	281	304	337
Maximum absorbed current	A	112	130	158	196	248	288	324	364	392	428
Inrush current	A	361	403	434	547	609	729	848	983	1.139	1.237
Inrush current with opt. PW/DS	A	209	244	285	365	414	494	585	702	808	879
Axial fans											
Quantity	n	6	6	6	6	6	6	8	10	10	12
Rotation speed	rpm	530	530	530	530	530	530	530	530	530	530
Motors power	kW	5	5	5	5	5	5	6	8	8	9
Total air flow	l/s	17.083	17.083	17.083	17.083	17.083	15.833	22.778	28.472	26.389	31.667
Total air flow	m³/h	61.500	61.500	61.500	61.500	61.500	57.000	82.000	102.500	95.000	114.000
Nominal absorbed current	A	9	9	9	9	9	9	12	15	15	18
Sound pressure level 2)	dB(A)	72	73	73	73	74	75	75	76	76	77
Shall and tube evaporator											
Quantity	n	1	1	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	7,9	9,8	10,3	11,6	12,7	14,4	16,6	21,2	24,1	28,0
Water flow rate 1)	m³/h	28,53	35,15	36,99	41,78	45,64	51,72	59,63	76,19	86,87	100,67
Pressure drop	kPa	71	37	42	53	54	69	47	60	36	49
Free cooling pressure drop	kPa	128	100	109	131	109	130	98	118	99	102
Water circuit volume	l	173	187	187	187	204	204	256	322	370	412
Pump Group P1											
Available pressure 1)	kPa	184	210	201	178	198	175	204	176	188	176
Motor power	kW	11	11	11	11	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134	134	134	134	134
Pump group P1H											
Available pressure 1)	kPa	269	295	287	263	284	261	290	263	276	264
Motor power	kW	15	15	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147	147	147	147	147
Pump group PT											
Available pressure 1)	kPa	267	293	284	260	280	256	284	252	262	246
Motor power	kW	15	15	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194	194	194
Weight	kg	294	294	294	294	294	294	294	294	294	294
Hydraulic kit											
Expansion vessel	l	25	25	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	---	---	---	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	---	---	---	•
Electrical data											
Total absorbed power	kW	46	61	75	91	110	123	139	177	189	211
Total nominal absorbed current	A	83	104	128	154	184	206	229	296	319	355
Maximum absorbed current	A	121	139	167	205	257	297	336	379	407	446
Total inrush current	A	370	412	443	556	618	738	860	998	1154	1255
Total inrush current with opt. PW/DS	A	218	253	294	374	423	503	597	717	823	897
Dimensions											
Length	mm	5.082	5.082	5.082	5.082	5.082	5.082	6.120	7.158	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.707	3.865	4.297	4.320	4.341	4.461	5.062	6.458	6.827	7.466
Weight in operation	kg	3.880	4.052	4.484	4.507	4.545	4.665	5.318	6.779	7.197	7.878
Refrigerant charge for each circuit	kg	36	38	38	38	40	51	52	66	89	102
Power supply											
400 V / 50 Hz / 3 Ph + T											

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - units inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R22

MODEL	RAH...F	2202	2802	3102	3602	4302	5102	5902	7002
Cooling capacity 1)	kW	226,0	275,0	293,0	347,0	406,0	480,0	573,0	682,0
Absorbed power	kW	71,5	95,1	110,3	130,8	150,8	175	201,3	228
C.O.P	kW/kW	3,16	2,89	2,66	2,65	2,69	2,74	2,85	2,99
Cooling capacity in free cooling 4)	kW	216	216	216	208	282	270	344	416
Screw compressors									
Quantity	n	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100							
Circuits	n	2	2	2	2	2	2	2	2
Nominal absorbed current	A	122	159	183	216	243	289	334	377
Maximum absorbed current	A	172	216	256	288	324	360	432	492
Inrush current	A	497	616	613	729	848	981	1.159	1.269
Inrush current with opt. PW/DS	A	304	377	418	494	585	700	828	911
Axial fans									
Quantity	n	6	6	6	6	8	8	10	12
Rotation speed	rpm	880	880	880	880	880	880	880	880
Motors power	kW	12	12	12	12	16	16	20	24
Total air flow	l/s	29.167	29.167	29.167	27.500	38.889	36.667	45.833	55.000
Total air flow	m³/h	105.000	105.000	105.000	99.000	140.000	132.000	165.000	198.000
Nominal absorbed current	A	24	24	24	24	32	32	40	48
Sound pressure level 2)	dB(A)	80	81	81	81	82	82	84	85
Shell and tube evaporator									
Quantity	n	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	11,5	14,1	15,0	17,7	20,8	24,54	29,3	34,85
Water flow rate 1)	m³/h	41,54	50,65	53,96	63,79	74,74	88,34	105,48	125,46
Pressure drop	kPa	56	47	53	49	33	47	58	55
Free cooling pressure drop	kPa	165	176	147	150	113	118	123	149
Water circuit volume	l	173	217	217	212	299	291	322	472
Pump Group P1									
Available pressure 1)	kPa	144	129	157	150	181	168	150	107
Motor power	kW	11	11	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134	134	134
Pump group P1H									
Available pressure 1)	kPa	229	215	243	236	268	255	238	197
Motor power	kW	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147	147	147
Pump group PT									
Available pressure 1)	kPa	226	210	238	228	257	240	217	167
Motor power	kW	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194
Weight	kg	294	294	294	294	294	294	294	294
Hydraulic kit									
Expansion vessel	l	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	---	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	---	•
Electrical data									
Total absorbed power	kW	84	107	122	143	167	191	221	252
Total nominal absorbed current	A	146	183	207	240	275	321	374	425
Maximum absorbed current	A	196	240	280	312	356	392	472	540
Total inrush current	A	521	640	637	753	880	1.013	1.199	1.317
Total inrush current with opt. PW/DS	A	328	401	442	518	617	732	868	959
Dimensions									
Length	mm	5.082	5.082	5.082	5.082	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.753	3.887	4.336	4.457	5.134	6.009	6.687	7.521
Weight in operation	kg	3.926	4.104	4.553	4.669	5.434	6.300	7.009	7.993
Refrigerant charge for each circuit	kg	36	38	38	49	52	68	83	99
Power supply 400 V / 50 Hz / 3 Ph + T									

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - unit's inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R22

MODEL	RAH...FS	2202	2802	3102	3602	4302	5102	5902	7002
Cooling capacity 1)	kW	217	261	295	342	408	491	578	644
Absorbed power	kW	74,6	99,9	109,7	132,5	150	171,5	199,8	240,1
C.O.P	kW/kW	2,91	2,61	2,69	2,58	2,72	2,86	2,89	2,68
Cooling capacity in free cooling 4)	kW	176	176	171	229	223	283	342	342
Screw compressors									
Quantity	n	2	2	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6	6	6
Continuous control capacity (option)	%					0 - 12 ÷ 100			
Circuits	n	2	2	2	2	2	2	2	2
Nominal absorbed current	A	127	166	182	218	242	284	332	394
Maximum absorbed current	A	172	216	256	288	324	360	432	492
Inrush current	A	497	616	613	729	848	984	1.159	1.269
Inrush current with opt. PW/DS	A	304	377	418	494	585	700	828	911
Axial fans									
Quantity	n	6	6	6	8	8	10	12	12
Rotation speed	rpm	660	660	660	660	660	660	660	660
Motors power	kW	8	8	8	10	10	13	15	15
Total air flow	l/s	21.667	21.667	20.833	28.889	27.778	34.722	41.667	41.667
Total air flow	m³/h	78.000	78.000	75.000	104.000	100.000	125.000	150.000	150.000
Nominal absorbed current	A	14	14	14	18	18	23	28	28
Sound pressure level 2)	dB(A)	75	75	76	77	79	79	81	82
Shell and tube evaporator									
Quantity	n	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	11,1	13,4	15,1	17,5	20,9	25,09	29,5	32,92
Water flow rate 1)	m³/h	39,96	48,06	54,29	62,89	75,17	90,32	106,31	118,51
Pressure drop	kPa	52	42	54	48	33	49	59	49
Free cooling pressure drop	kPa	138	145	127	107	108	125	128	123
Water circuit volume	l	173	217	217	254	299	333	364	472
Pump Group P1									
Available pressure 1)	kPa	171	161	177	193	186	159	145	139
Motor power	kW	11	11	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134	134	134
Pump group P1H									
Available pressure 1)	kPa	257	247	263	279	273	246	233	228
Motor power	kW	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147	147	147
Pump group PT									
Available pressure 1)	kPa	254	242	257	272	262	231	212	201
Motor power	kW	15	15	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194	194	194
Weight	kg	294	294	294	294	294	294	294	294
Hydraulic kit									
Expansion vessel	l	25	25	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	•	•	•	•	•
Buffer tanks 1800 l		---	---	---	---	---	•	•	•
Buffer tanks 2400 l		---	---	---	---	---	---	•	•
Electrical data									
Total absorbed power	kW	184	184	179	239	233	296	357	357
Total nominal absorbed current	A	141	180	196	236	260	307	360	422
Maximum absorbed current	A	186	230	270	306	342	383	460	520
Total inrush current	A	511	630	627	747	866	1.007	1.187	1.297
Total inrush current with opt. PW/DS	A	318	391	432	512	603	723	856	939
Dimensions									
Length	mm	5.082	5.082	5.082	6.120	6.120	7.158	8.196	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.753	3.887	4.433	4.991	5.264	6.635	7.312	7.521
Weight in operation	kg	3.926	4.104	4.650	5.244	5.563	6.968	7.676	7.993
Refrigerant charge for each circuit	kg	36	38	49	49	66	82	97	99
Power supply									
400 V / 50 Hz / 3 Ph + T									

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - unit's inlet water 15 °C - glycol 20 %

WATER CHILLERS R407C – R134A – R22

AIR COOLED WATER CHILLERS

WITH SCREW COMPRESSORS AND AXIAL FANS

RAH... Technical data with refrigerant R22

MODEL	RAH...FU	2202	2802	3102	3602	4302	5102
Cooling capacity 1)	kW	209	260	293	340	413	470
Absorbed power	kW	77,6	100,4	110,3	133,2	148,3	178,3
C.O.P	kW/kW	2,69	2,59	2,66	2,55	2,78	2,64
Cooling capacity in free cooling 4)	kW	149	141	194	184	234	298
Screw compressors							
Quantity	n	2	2	2	2	2	2
Standard steps capacity	n	6	6	6	6	6	6
Continuous control capacity (option)	%	0 - 12 ÷ 100					
Circuits	n	2	2	2	2	2	2
Nominal absorbed current	A	131	167	183	219	239	294
Maximum absorbed current	A	172	216	256	288	324	360
Inrush current	A	497	616	613	729	848	981
Inrush current with opt. PW/DS	A	304	377	418	494	585	700
Axial fans							
Quantity	n	6	6	8	8	10	12
Rotation speed	rpm	530	530	530	530	530	530
Motors power	kW	4,5	4,5	6	6	7,5	9
Total air flow	l/s	17.083	15.833	22.778	21.111	26.389	34.167
Total air flow	m³/h	61.500	57.000	82.000	76.000	95.000	123.000
Nominal absorbed current	A	9	9	12	12	15	18
Sound pressure level 2)	dB(A)	72	72	73	74	75	76
Shell and tube evaporator							
Quantity	n	1	1	1	1	1	1
Water flow rate 1)	l/s	10,6	13,3	15,0	17,4	21,1	24,03
Water flow rate 1)	m³/h	38,16	47,81	54,00	62,53	76,10	86,51
Pressure drop	kPa	48	42	53	47	34	45
Free cooling pressure drop	kPa	120	131	99	102	112	121
Water circuit volume	l	173	217	259	254	341	375
Pump Group P1							
Available pressure 1)	kPa	190	175	205	198	181	166
Motor power	kW	11	11	11	11	11	11
Absorbed current	A	20	20	20	20	20	20
Inrush current	A	170	170	170	170	170	170
Weight	kg	134	134	134	134	134	134
Pump group P1H							
Available pressure 1)	kPa	275	261	291	284	268	254
Motor power	kW	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194
Weight	kg	147	147	147	147	147	147
Pump group PT							
Available pressure 1)	kPa	272	256	285	277	257	239
Motor power	kW	15	15	15	15	15	15
Absorbed current	A	27	27	27	27	27	27
Inrush current	A	194	194	194	194	194	194
Weight	kg	294	294	294	294	294	294
Hydraulic kit							
Expansion vessel	l	25	25	25	25	25	25
Quantity	n.	2	2	2	2	2	2
Buffer tanks 900 l		•	•	•	•	•	•
Buffer tanks 1500 l		---	---	---	---	---	---
Buffer tanks 1800 l		---	---	---	---	---	---
Buffer tanks 2400 l		---	---	---	---	---	---
Electrical data							
Total absorbed power	kW	154	146	200	190	242	307
Total nominal absorbed current	A	140	176	195	231	254	312
Maximum absorbed current	A	181	225	268	300	339	378
Total inrush current	A	506	625	625	741	863	999
Total inrush current with opt. PW/DS	A	313	386	430	506	600	718
Dimensions							
Length	mm	5.082	5.082	6.120	6.120	7.158	8.196
Width	mm	2.244	2.244	2.244	2.244	2.244	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 3)	kg	3.725	3.956	4.929	5.083	5.844	7.012
Weight in operation	kg	3.898	4.174	5.189	5.337	6.185	7.387
Refrigerant charge for each circuit	kg	36	49	49	63	80	75
Power supply				400 V / 50 Hz / 3 Ph + T			

1) Nominal condition referred to: air 35 °C - chilled water 7/12 °C

2) Measured at 1 m in open field (ISO 3746)

3) Oil and refrigerant charge included

4) Free-cooling work mode: air 5 °C - unit's inlet water 15 °C - glycol 20 %