

# HEAT PUMPS R407C – R134A – R22

## AIR COOLED HEAT PUMPS

### WITH SCREW COMPRESSORS AND AXIAL FANS



PAH 3602

### PAH... Series

2 refrigerant circuits - Cooling capacities from 290 to 841 kW

Heat pumps suitable for cold and warm water production in civil, services and industrial heating and cooling systems  
Designed for external installation

Compact and packaged units, with anodized aluminium frame and peralluman panels. Painted zinc steel base frame.

Axial fans

Operating temperatures from +15 °C to +45 °C in the standard version

Winter operation down to -4 °C

Available versions:

**PAH...K** with ecological refrigerant R407C charge

**PAH...SK** silenced version with ecological refrigerant R407C charge

**PAH...UK** ultra silenced version with ecological refrigerant R407C charge

**PAH...Ka** with ecological refrigerant R134a charge

**PAH...SKa** silenced version with ecological refrigerant R134a charge

**PAH...UKa** ultra silenced version with ecological refrigerant R134a charge

**PAH...** standard version

**PAH...S** silenced version

**PAH...U** 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: 4 ways valve for the cooling circuit reversing, 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.

Defrosting system managed by the microprocessor, with a time / temperature logic.

Compressors hour counter.

### Accessories

A	Amperometer
BT	Low temperature operation (-20 °C) with modulating fan speed regulation
CE	UV protection on water insulation
CS	Compressors inrush counter
DS	Star/delta
FA	Protection filters for the condensing coil
GP	Protection grid for the condensing coil
I1	Victaulic insulation on pump side
I2	Victaulic insulation on buffer tank side
IG	Watch card
IH	RS 485 serial interface
LI	Liquid injection (standard per R22 e 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
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

## PAH... Technical data with refrigerant R407C

MODEL	PAH...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
Heating capacity 3)	kW	283	352	396	476	533	662	758
Absorbed power in heating	kW	70	89	110	119	143	174	190
<b>Screw compressors</b>								
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 1)	A	124	155	188	204	238	296	327
Nominal absorbed current 3)	A	120	150	182	198	231	288	317
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
<b>Axial fans</b>								
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 <sup>3</sup> /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
<b>Shell and tube evaporator</b>								
Quantity	n	1	1	1	1	1	1	1
Water flow rate 1)	l/s	9,8	12,2	13,2	16,5	18,0	22,6	26,3
Water flow rate 1)	m <sup>3</sup> /h	35,3	43,9	47,5	59,4	64,8	81,4	94,7
Pressure drop 1)	kPa	70	56	60	58	46	35	49
Water flow rate 3)	l/s	13,5	16,8	18,9	22,7	25,5	31,6	63,2
Water flow rate 3)	m <sup>3</sup> /h	48,6	60,5	68,0	81,7	91,8	113,8	227,5
Pressure drop 3)	kPa	133	108	124	110	92	69	92
Water volume	l	39	49	56	93	88	133	125
<b>Pump Group P1</b>								
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
<b>Pump group P1H</b>								
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
<b>Pump group PT</b>								
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
<b>Hydraulic kit</b>								
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		---	---	---	---	---	---	•
<b>Electrical data</b>								
Total absorbed power	kW	85	104	126	139	164	200	220
Total nominal absorbed current 1)	A	148	179	212	236	270	336	375
Total nominal absorbed current 3)	A	144	174	206	230	263	328	365
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
<b>Dimensions</b>								
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 4)	kg	3.540	3.672	4.143	4.768	4.805	6.152	6.699
Weight in operation	kg	3.578	3.721	4.199	4.862	4.892	6.286	6.824
Refrigerant charge for each circuit	kg	61	70	71	84	85	100	113
<b>Power supply</b>		<b>400 V / 50 Hz / 3 Ph + T</b>						

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

# HEAT PUMPS R407C – R134A – R22

## AIR COOLED HEAT PUMPS

### WITH SCREW COMPRESSORS AND AXIAL FANS

#### PAH... Technical data with refrigerant R407C

MODEL	PAH...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
Heating capacity 3)	kW	277	343	395	463	540	667
Absorbed power in heating	kW	74	94	111	125	139	171
<b>Screw compressors</b>							
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 1)	A	129	162	189	214	233	292
Nominal absorbed current 3)	A	126	157	183	208	226	283
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
<b>Axial fans</b>							
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	m³/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
<b>Shell and tube evaporator</b>							
Quantity	n	1	1	1	1	1	1
Water flow rate 1)	l/s	9,4	11,5	13,1	15,6	18,5	22,9
Water flow rate 1)	m³/h	33,8	41,4	47,2	56,2	66,6	82,4
Pressure drop 1)	kPa	64	50	60	52	48	36
Water flow rate 3)	l/s	13,2	16,4	18,9	22,1	25,8	31,9
Water flow rate 3)	m³/h	47,5	59,0	68,0	79,6	92,9	114,8
Pressure drop 3)	kPa	128	102	124	104	94	70
Water volume	l	39	49	56	93	88	133
<b>Pump Group P1</b>							
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
<b>Pump group P1H</b>							
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
<b>Pump group PT</b>							
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
<b>Hydraulic kit</b>							
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		---	---	---	---	---	•
<b>Electrical data</b>							
Total absorbed power	kW	84	105	125	140	157	192
Total nominal absorbed current 1)	A	143	176	207	232	256	320
Total nominal absorbed current 3)	A	140	171	201	226	249	311
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
<b>Dimensions</b>							
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 4)	kg	3.540	3.672	4.520	4.768	5.306	6.654
Weight in operation	kg	3.578	3.721	4.576	4.862	5.393	6.788
Refrigerant charge for each circuit	kg	61	70	71	84	97	111
<b>Power supply</b>		<b>400 V / 50 Hz / 3 Ph + T</b>					

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

## PAH... Technical data with refrigerant R407C

MODEL	PAH...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
Heating capacity 3)	kW	276	343	393	466	541	643
Absorbed power in heating	kW	74	94	112	124	138	183
<b>Screw compressors</b>							
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 1)	A	130	163	191	212	232	311
Nominal absorbed current 3)	A	126	158	185	206	225	301
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
<b>Axial fans</b>							
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	m <sup>3</sup> /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
<b>Shell and tube evaporator</b>							
Quantity	n	1	1	1	1	1	1
Water flow rate 1)	l/s	9,3	11,5	13,0	15,8	18,6	21,2
Water flow rate 1)	m <sup>3</sup> /h	33,5	41,4	46,8	56,9	67,0	76,3
Pressure drop 1)	kPa	64	50	58	53	49	31
Water flow rate 3)	l/s	13,2	16,4	18,8	22,3	25,9	30,7
Water flow rate 3)	m <sup>3</sup> /h	47,5	59,0	67,7	80,3	93,2	110,5
Pressure drop 3)	kPa	127	102	122	106	94	65
Water volume	l	39	49	56	93	88	133
<b>Pump Group P1</b>							
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
<b>Pump group P1H</b>							
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
<b>Pump group PT</b>							
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
<b>Hydraulic kit</b>							
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	---	---	---	---	•	•	•
<b>Electrical data</b>							
Total absorbed power	kW	82	103	122	136	152	199
Total nominal absorbed current 1)	A	139	175	203	227	250	329
Total nominal absorbed current 3)	A	135	170	197	221	243	319
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
<b>Dimensions</b>							
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 4)	kg	3.605	4.012	4.607	5.223	5.753	6.599
Weight in operation	kg	3.643	4.062	4.663	5.316	5.840	6.733
Refrigerant charge for each circuit	kg	69	70	82	96	107	111
<b>Power supply</b>		<b>400 V / 50 Hz / 3 Ph + T</b>					

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

# HEAT PUMPS R407C – R134A – R22

## AIR COOLED HEAT PUMPS

### WITH SCREW COMPRESSORS AND AXIAL FANS

#### PAH... Technical data with refrigerant R134a

MODEL	PAH...Ka	2502	2802	3202	3602	4602	5202	6002	6802	8002
Cooling capacity 1)	kW	259	286	319	364	478	508	610	696	778
Absorbed power	kW	76	90	107	121	150	169	183	211	267
C.O.P	kW/kW	3,41	3,18	2,98	3,01	3,19	3,01	3,33	3,30	2,91
Heating capacity 3)	kW	317	356	405	461	596	643	752	860	994
Absorbed power in heating	kW	73	86	103	117	144	163	176	203	257
<b>Screw compressors</b>										
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 1)	A	130	153	181	199	252	287	309	348	429
Nominal absorbed current 3)	A	126	147	175	192	243	277	299	336	414
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
<b>Axial fans</b>										
Quantity	n	6	6	6	6	8	8	10	12	12
Rotation speed	rpm	880	880	880	880	880	880	880	880	880
Motors power	kW	12	12	12	12	16	16	20	24	24
Total air flow	l/s	35.000	35.000	35.000	32.500	43.333	43.333	54.167	65.000	65.000
Total air flow	m <sup>3</sup> /h	126.000	126.000	126.000	117.000	156.000	156.000	195.000	234.000	234.000
Nominal absorbed current	A	24	24	24	24	32	32	40	48	48
Sound pressure level 2)	dB(A)	81	81	81	81	83	83	84	85	85
<b>Shell and tube evaporator</b>										
Quantity	n	1	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	12,4	13,7	15,2	17,4	22,8	24,3	29,1	33,3	37,2
Water flow rate 1)	m <sup>3</sup> /h	44,5	49,2	54,9	62,6	82,2	87,4	104,9	119,7	133,8
Pressure drop 1)	kPa	55	57	36	43	30	33	41	61	51
Water flow rate 3)	l/s	15,1	17,0	19,4	22,0	28,5	30,7	35,9	41,1	47,5
Water flow rate 3)	m <sup>3</sup> /h	54,5	61,2	69,7	79,3	102,5	110,6	129,3	147,9	171,0
Pressure drop 3)	kPa	82	89	58	69	46	54	62	93	84
Water volume	l	63	80	90	130	162	162	184	222	435
<b>Pump Group P1</b>										
Available pressure	kPa	121	117	137	125	128	120	97	168	172
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
<b>Pump group P1H</b>										
Available pressure	kPa	172	167	187	176	179	171	149	276	279
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
<b>Pump group PT</b>										
Available pressure	kPa	168	162	181	168	165	156	127	267	268
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
<b>Hydraulic kit</b>										
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		---	---	---	---	---	---	---	•	•
<b>Electrical data</b>										
Total absorbed power	kW	88	102	119	133	166	185	203	235	291
Total nominal absorbed current 1)	A	154	177	205	223	284	319	349	396	477
Total nominal absorbed current 3)	A	150	171	199	216	275	309	339	384	462
Maximum absorbed current	A	220	272	312	348	396	424	468	608	668
Total inrush current	A	571	633	753	872	1.015	1.171	1.277	1.692	1.800
Total inrush current with opt. PW/DS	A	389	438	518	609	734	840	919	764	823
<b>Dimensions</b>										
Length	mm	5.082	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	2.244
Height	mm	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370	2.370
Transport weight 4)	kg	4.132	4.152	4.241	4.370	5.852	5.875	6.502	8.053	8.163
Weight in operation	kg	4.195	4.233	4.331	4.500	6.014	6.037	6.686	8.275	8.598
Refrigerant charge for each circuit	kg	69	71	72	85	106	106	123	140	135
<b>Power supply</b>	<b>400 V / 50 Hz / 3 Ph + T</b>									

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

## PAH... Technical data with refrigerant R134a

MODEL	PAH...SKa	2202	2502	2802	3202	3602	4602	5202	6002	6802
Cooling capacity 1)	kW	219	249	274	321	364	469	524	616	664
Absorbed power	kW	66	79	94	106	122	153	163	181	223
C.O.P	kW/kW	3,32	3,15	2,91	3,03	2,98	3,07	3,21	3,40	2,98
Heating capacity 3)	kW	270	312	350	406	461	591	652	755	842
Absorbed power in heating	kW	63	76	91	102	117	147	157	174	214
<b>Screw compressors</b>										
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 1)	A	113	136	160	180	199	257	277	306	366
Nominal absorbed current 3)	A	109	131	154	174	192	248	268	296	353
Maximum absorbed current	A	151	189	241	281	315	353	381	414	546
Inrush current	A	434	547	609	729	848	983	1.139	1.237	1.644
Inrush current with opt. PW/DS	A	285	365	414	494	585	702	808	879	716
<b>Axial fans</b>										
Quantity	n	6	6	6	6	8	10	10	12	12
Rotation speed	rpm	660	660	660	660	660	660	660	660	660
Motors power	kW	7,5	7,5	7,5	7,5	10	12,5	12,5	15	15
Total air flow	l/s	26.667	26.667	26.667	25.000	35.556	44.444	41.667	50.000	50.000
Total air flow	m³/h	96.000	96.000	96.000	90.000	128.000	160.000	150.000	180.000	180.000
Nominal absorbed current	A	14	14	14	14	18	23	23	28	28
Sound pressure level 2)	dB(A)	76	76	76	76	79	81	81	82	82
<b>Shell and tube evaporator</b>										
Quantity	n	1	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	10,5	11,9	13,1	15,3	17,4	22,4	25,0	29,4	31,7
Water flow rate 1)	m³/h	37,7	42,8	47,1	55,2	62,6	80,7	90,1	106,0	114,2
Pressure drop 1)	kPa	39	51	52	37	43	28	36	42	55
Water flow rate 3)	l/s	12,9	14,9	16,7	19,4	22,0	28,2	31,2	36,1	40,2
Water flow rate 3)	m³/h	46,4	53,7	60,2	69,8	79,3	101,7	112,1	129,9	144,8
Pressure drop 3)	kPa	60	80	86	59	69	45	55	62	89
Water volume	l	63	63	80	90	130	162	162	184	222
<b>Pump Group P1</b>										
Available pressure	kPa	141	126	123	136	125	130	115	95	176
Motor power	kW	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	27
Inrush current	A	70	70	70	70	70	70	70	70	194
Weight	kg	91	91	91	91	91	91	91	91	160
<b>Pump group P1H</b>										
Available pressure	kPa	191	177	173	187	176	182	167	148	284
Motor power	kW	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	39
Inrush current	A	105	105	105	105	105	105	105	105	273
Weight	kg	99	99	99	99	99	99	99	99	192
<b>Pump group PT</b>										
Available pressure	kPa	188	173	169	181	168	168	150	125	276
Motor power	kW	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	39
Inrush current	A	105	105	105	105	105	105	105	105	273
Weight	kg	196	196	196	196	196	196	196	196	379
<b>Hydraulic kit</b>										
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	---	---	---	---	---	---	---	---	•	•
<b>Electrical data</b>										
Total absorbed power	kW	74	87	102	114	132	166	176	196	238
Total nominal absorbed current 1)	A	127	150	174	194	217	280	300	334	394
Total nominal absorbed current 3)	A	123	145	168	188	210	271	291	324	381
Maximum absorbed current	A	165	203	255	295	333	376	404	442	574
Total inrush current	A	448	561	623	743	866	1.006	1.162	1.265	1.672
Total inrush current with opt. PW/DS	A	299	379	428	508	603	725	831	907	744
<b>Dimensions</b>										
Length	mm	5.082	5.082	5.082	5.082	6.120	7.158	7.158	8.196	8.196
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 4)	kg	4.178	4.201	4.221	4.407	4.817	6.268	6.450	7.079	8.122
Weight in operation	kg	4.241	4.264	4.302	4.497	4.946	6.430	6.612	7.263	8.344
Refrigerant charge for each circuit	kg	69	69	71	83	85	103	120	136	140
<b>Power supply</b>										
<b>400 V / 50 Hz / 3 Ph + T</b>										

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

# HEAT PUMPS R407C – R134A – R22

## AIR COOLED HEAT PUMPS

### WITH SCREW COMPRESSORS AND AXIAL FANS

#### PAH... Technical data with refrigerant R134a

MODEL	PAH...UKa	1802	2202	2502	2802	3202	3602	4602	5202
Cooling capacity 1)	kW	197	212	238	271	321	361	464	524
Absorbed power	kW	55	69	84	95	106	123	155	163
C.O.P	kW/kW	3,58	3,07	2,83	2,85	3,03	2,93	2,99	3,21
Heating capacity 3)	kW	238	266	306	349	406	460	589	652
Absorbed power in heating	kW	53	66	80	91	102	118	149	157
<b>Screw compressors</b>									
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 1)	A	94	118	143	161	180	201	260	277
Nominal absorbed current 3)	A	91	114	138	156	174	194	251	268
Maximum absorbed current	A	108	126	154	192	242	282	317	355
Inrush current	A	361	403	434	547	609	729	848	983
Inrush current with opt. PW/DS	A	209	234	285	365	414	494	585	702
<b>Axial fans</b>									
Quantity	n	6	6	6	6	8	8	10	12
Rotation speed	rpm	530	530	530	530	530	530	530	530
Motors power	kW	6	6	6	6	8	8	10	12
Total air flow	l/s	20.833	20.833	20.833	19.167	27.778	25.556	31.944	38.333
Total air flow	m³/h	75.000	75.000	75.000	69.000	100.000	92.000	115.000	138.000
Nominal absorbed current	A	9	9	9	9	12	12	15	18
Sound pressure level 2)	dB(A)	73	73	73	73	76	76	77	78
<b>Shell and tube evaporator</b>									
Quantity	n	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	9,4	10,1	11,4	12,9	15,3	17,2	22,2	25,0
Water flow rate 1)	m³/h	33,9	36,5	40,9	46,6	55,2	62,1	79,8	90,1
Pressure drop 1)	kPa	32	37	46	52	37	42	28	36
Water flow rate 3)	l/s	11,4	12,7	14,6	16,7	19,4	22,0	28,1	31,2
Water flow rate 3)	m³/h	40,9	45,8	52,6	60,0	69,8	79,1	101,3	112,1
Pressure drop 3)	kPa	47	58	77	85	59	69	45	55
Water volume	l	63	63	63	80	90	130	162	162
<b>Pump Group P1</b>									
Available pressure	kPa	150	144	132	124	136	126	131	115
Motor power	kW	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5
Absorbed current	A	11	11	11	11	11	11	11	11
Inrush current	A	70	70	70	70	70	70	70	70
Weight	kg	91	91	91	91	91	91	91	91
<b>Pump group P1H</b>									
Available pressure	kPa	200	194	182	174	187	177	183	167
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105	105	105
Weight	kg	99	99	99	99	99	99	99	99
<b>Pump group PT</b>									
Available pressure	kPa	198	192	179	170	181	169	170	150
Motor power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Absorbed current	A	15	15	15	15	15	15	15	15
Inrush current	A	105	105	105	105	105	105	105	105
Weight	kg	196	196	196	196	196	196	196	196
<b>Hydraulic kit</b>									
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		---	---	---	---	---	---	---	---
<b>Electrical data</b>									
Total absorbed power	kW	61	75	90	101	114	131	165	175
Total nominal absorbed current 1)	A	103	127	152	170	192	213	275	295
Total nominal absorbed current 3)	A	100	123	147	165	186	206	266	286
Maximum absorbed current	A	117	135	163	201	254	294	332	373
Total inrush current	A	370	412	443	556	621	741	863	1.001
Total inrush current with opt. PW/DS	A	218	243	294	374	426	506	600	720
<b>Dimensions</b>									
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 4)	kg	3.718	4.150	4.173	4.291	4.747	4.909	6.381	6.903
Weight in operation	kg	3.781	4.213	4.236	4.371	4.837	5.038	6.543	7.064
Refrigerant charge for each circuit	kg	69	69	69	82	83	99	120	134
<b>Power supply</b>									
<b>400 V / 50 Hz / 3 Ph + T</b>									

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

## PAH... Technical data with refrigerant R22

MODEL	PAH...	2802	3102	3602	4302	5102	5902	7002	8802
Cooling capacity 1)	kW	289,0	311,0	366,0	413,0	508,0	574,0	679,0	841,0
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
Heating capacity 3)	kW	339	372	440	505	603	697	814	1.018
Absorbed power in heating	kW	92	106	126	151	169	204	233	297
<b>Screw compressors</b>									
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 1)	A	154	177	209	243	281	340	385	475
Nominal absorbed current 3)	A	154	176	209	242	280	339	384	474
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
<b>Axial fans</b>									
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	m <sup>3</sup> /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	84	85
<b>Shell and tube evaporator</b>									
Quantity	n	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	13,8	14,8	17,5	19,7	24,3	27,4	32,4	40,2
Water flow rate 1)	m <sup>3</sup> /h	49,7	53,3	63,0	70,9	87,5	98,6	116,6	144,7
Pressure drop 1)	kPa	41	47	43	27	42	47	44	54
Water flow rate 3)	l/s	16,2	17,8	21,0	24,1	28,8	33,3	38,9	48,6
Water flow rate 3)	m <sup>3</sup> /h	58,3	64,1	75,6	86,8	103,7	119,9	140,0	175,0
Pressure drop 3)	kPa	56	68	63	40	59	69	63	79
Water volume	l	93	93	88	133	125	114	222	184
<b>Pump Group P1</b>									
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
<b>Pump group P1H</b>									
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
<b>Pump group PT</b>									
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
<b>Hydraulic kit</b>									
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		---	---	---	---	---	---	---	•
<b>Electrical data</b>									
Total absorbed power	kW	104	118	139	163	185	225	253	321
Total nominal absorbed current 1)	A	178	201	233	267	313	380	425	523
Total nominal absorbed current 3)	A	178	200	233	266	312	379	424	522
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
<b>Dimensions</b>									
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 4)	kg	3.715	4.163	4.281	4.426	5.673	6.075	6.437	8.002
Weight in operation	kg	3.808	4.257	4.369	4.559	4.798	6.188	6.659	8.187
Refrigerant charge for each circuit	kg	65	65	74	78	91	90	107	125
<b>Power supply</b>		<b>400 V / 50 Hz / 3 Ph + T</b>							

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

# HEAT PUMPS R407C – R134A – R22

## AIR COOLED HEAT PUMPS

### WITH SCREW COMPRESSORS AND AXIAL FANS

#### PAH... Technical data with refrigerant R22

MODEL	PAH...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
Heating capacity 3)	kW	267	334	366	432	514	591	698	818
Absorbed power in heating	kW	72	95	111	132	144	177	204	230
<b>Screw compressors</b>									
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 1)	A	123	160	184	218	234	293	338	381
Nominal absorbed current 3)	A	122	159	183	218	233	292	337	380
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
<b>Axial fans</b>									
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	77	81	82
<b>Shell and tube evaporator</b>									
Quantity	n	1	1	1	1	1	1	1	1
Water flow rate 1)	l/s	10,9	13,3	14,2	16,7	20,7	23,1	27,6	32,8
Water flow rate 1)	m³/h	39,24	47,88	51,12	60,12	74,52	83,16	99,36	118,08
Pressure drop 1)	kPa	46	38	43	39	30	38	47	45
Water flow rate 3)	l/s	12,8	15,9	17,5	20,6	24,6	28,2	33,3	39,1
Water flow rate 3)	m³/h	46,1	57,2	63,0	74,2	88,6	101,5	119,9	140,8
Pressure drop 3)	kPa	62	54	65	60	42	56	69	63
Water volume	l	49	93	93	88	133	125	114	222
<b>Pump Group P1</b>									
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
<b>Pump group P1H</b>									
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
<b>Pump group PT</b>									
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	---
<b>Hydraulic kit</b>									
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		---	---	---	---	---	---	---	•
<b>Electrical data</b>									
Total absorbed power	kW	80	104	119	141	155	187	217	246
Total nominal absorbed current 1)	A	137	174	198	232	252	311	361	409
Total nominal absorbed current 3)	A	136	173	197	232	251	310	360	408
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
<b>Dimensions</b>									
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 4)	kg	3.579	3.715	4.163	4.281	4.927	5.673	6.227	6.939
Weight in operation	kg	3.629	3.808	4.257	4.369	5.060	5.798	6.340	7.161
Refrigerant charge for each circuit	kg	62	65	65	74	89	91	104	118
<b>Power supply</b>		<b>400 V / 50 Hz / 3 Ph + T</b>							

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included

## PAH... Technical data with refrigerant R22

MODEL	PAH...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
Heating capacity 3)	kW	264	333	364	432	510	595	698
Absorbed power in heating	kW	75	96	112	132	147	175	203
<b>Screw compressors</b>								
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 1)	A	127	161	185	219	238	289	338
Nominal absorbed current 3)	A	126	160	185	218	238	289	337
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
<b>Axial fans</b>								
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	m³/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
<b>Shell and tube evaporator</b>								
Quantity	n	1	1	1	1	1	1	1
Water flow rate 1)	l/s	10,6	13,2	14,1	16,7	20,2	23,4	27,6
Water flow rate 1)	m³/h	38,2	47,5	50,8	60,1	72,7	84,2	99,4
Pressure drop 1)	kPa	43	37	42	39	28	39	47
Water flow rate 3)	l/s	12,6	15,9	17,4	20,6	24,4	28,4	33,4
Water flow rate 3)	m³/h	45,4	57,2	62,6	74,2	87,8	102,2	120,2
Pressure drop 3)	kPa	61	54	65	60	41	57	69
Water volume	l	49	93	93	88	133	125	114
<b>Pump Group P1</b>								
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
<b>Pump group P1H</b>								
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
<b>Pump group PT</b>								
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
<b>Hydraulic kit</b>								
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		---	---	---	---	---	---	•
<b>Electrical data</b>								
Total absorbed power	kW	80	101	117	139	156	183	213
Total nominal absorbed current 1)	A	127	161	185	219	238	289	338
Total nominal absorbed current 3)	A	126	160	185	218	238	289	337
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
<b>Dimensions</b>								
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 4)	kg	3.552	3.780	4.228	4.621	5.229	6.128	6.674
Weight in operation	kg	6.301	3.873	4.322	4.709	5.363	6.253	6.787
Refrigerant charge for each circuit	kg	62	73	73	74	86	102	115
<b>Power supply</b>					<b>400 V / 50 Hz / 3 Ph + T</b>			

1) Summer work mode: air 35 °C - chilled water 7/12 °C

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

3) Winter work mode: air 10 °C - warmed water 40/45 °C

4) Oil and refrigerant charge included