

ROOF-TOP - R407C

PACKAGED WATER TO AIR ROOF-TOP UNITS
WITH SCROLL COMPRESSORS



RTR.W 1662 3S.K

RTR...W – RTP...W Series

2 refrigerant circuits - Cooling capacities from 70 to 474 kW

The ROOF-TOP units have been conceived to be extremely flexible and to a wide range of custom-made options.

They are direct expansion and packaged water to air units, suitable for outdoor installation and for water source systems, realized with two independent cooling circuits, pre-arranged to be connected to the air inlet and distribution ducts.

They represent, therefore, the ideal solution for the summer cooling and the winter heating of supermarkets, commercial centres, exhibition halls, restaurants, hospital, food production and conservation facilities and laboratories, where a water source system is present.

The available versions are the following:

RTR...W.K only cooling

RTP...W.K cycle inversion heat pump

Depending on the different air treatment requests, the units can be realized in the following three configurations, better indicated in the following pages:

2S ... mixing of re-circulating and external air (2 dampers)

3S ... mixing of re-circulating and fresh air and exhaust of the exceeding internal air through a suitable fan (3 dampers)

TR ... all re-circulating air (no mixing between re-circulating and external air)

Made up of:

Structural frame made in extruded aluminium profiles, base frame in carbon steel profiles and panels in galvanised steel plate.

High efficiency hermetic Scroll compressors (COP3,37 with ARI conditions), with low sound level (on average 6 dB(A) less than the corresponding hermetic compressors), internal heat protection, rubber-type vibration dampers and crankcase heater.

Air treatment coils realized in copper pipes suitable for refrigerating liquids and high efficiency aluminium fins, stainless steel drip pan for condensing coil.

Water heat exchangers of welded-brazed plate type made in stainless steel.

Air outlet fan section with double suction forward centrifugal fans, driven by electric motors through variable belt and pulley transmission, on rubber-type vibration dampers.

Filtering section made of washable pleated filters in polyester with G4 metal frame.

Each cooling circuit is made of: expansion thermostatic valve with external equalizer, sight glass, dehydrating filter, safety device, high and low pressure switch, high and low pressure gauges; in the heat version pump, there are also a liquid receiver, a second thermostatic valve, 4 way cycle -inversion valve, check valve on liquid line.

Electric board in compliance with CE regulations provided with: lock-door, magnetothermic main switch, compressors fuses, automatic switches, remote control switches, motor protection switches, low-tension auxiliary circuits, terminal board compliant to CE standards.

Electronic microprocessor control for all the versions allowing the self-management of all the operations such as control, working condition, alarms etc.

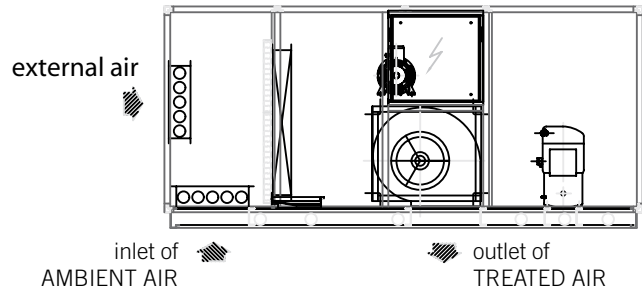
Compressor hour counter.

All units are factory tested before delivery and are supplied complete with a charge of R407C refrigerant and non-freezing oil.

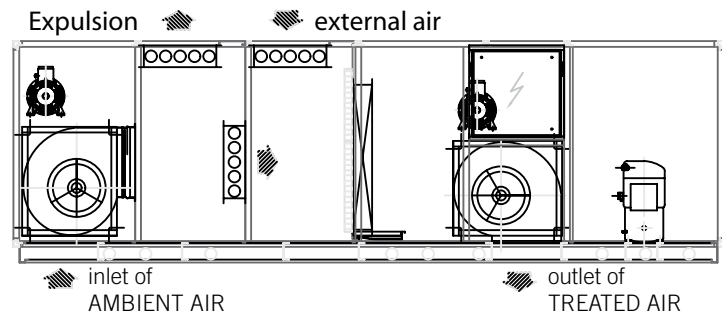
Accessories

1M	Centrifugal fans with higher available pressure
2M	Centrifugal fans with higher available pressure
AF	Clogged filters alarm
AFL	Smoke alarm
BC	Hot water heating coil
BC1	Water post-heating coil
BG	Hot gas post-heating coil
F	Free cooling operation
FT	High-efficiency bag filters
F5	Pleated F5 filters
GP	Condensing coil protection grid
H	Humidifier
IH	RS 485 serial interface
MS	Motorized dampers
MTB	Heating section with gas fired heating coil
MTC	Heating section with boiler
PA	Rubber-type vibration dampers
PF	Water differential flow switch
PM	Spring-type vibration dampers
PQ	Remote microprocessor
RA	Anti-freeze heating coil on evaporator
RC	Cross-flow heat recovery
RE	Electrical post-heating coil
VP	Pressostatic valve
VS	Solenoid valve
VSW	Water solenoid valve

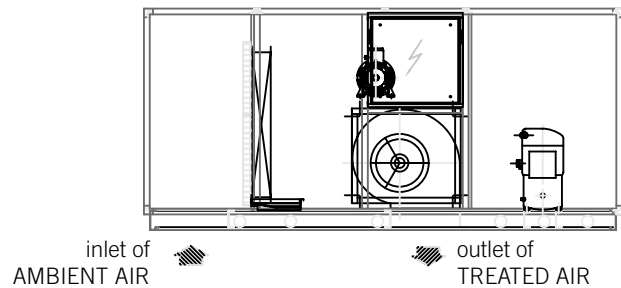
Version "2S"
 Operation with possibility of mixing both recirculating and external air through regulation dampers.



Version "3S"
 Operation with possibility of mixing and expulsion of recirculating air. Inlet fan section and regulation dampers.



Version "TR"
 Operation with all re-circulating air



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PACKAGED WATER TO AIR ROOF-TOP UNITS

WITH SCROLL COMPRESSORS

RTR.W - RTP.W Technical data

ONLY COOLING - MODEL	RTR.W	572	692	842	812	992	1102	1302	1292	1472	1662	1992	2322	2492	2802	3102	3662
MODEL 2S - 3S																	
Total cooling capacity (1)	kW	70	84	103	99,1	115	138	159	159	174	211	251	290	321	365	399	474
Sensible cooling capacity (1)	kW	40,6	50,2	62,2	57,5	69,8	81,2	92,4	93,7	102,6	129	150	168	186	212	228	271
Total absorbed power (1)	kW	13,7	15,4	19,6	19,6	23,3	27,9	31,3	32,6	36,1	39,7	48,3	55,3	62,6	65,7	73,9	89
Compr.absorbed current (1)	A	29	30	35	35	42	54	54	53	66	70	83	95	107	116	132	158
MODEL 2S - 3S																	
Total cooling capacity (2)	kW	75,7	90,9	111	107	125	149	172	172	188	228	271	314	347	395	431	513
Sensible cooling capacity (2)	kW	38	46,9	58,2	53,7	65,3	75,9	86,4	87,6	95,9	121	140	157	174	198	213	253
Total absorbed power (2)	kW	14	15,9	20,2	20,2	24	28,7	32,2	33,5	37,2	40,8	49,7	56,9	64,4	67,6	76	92
Compr.absorbed current (2)	A	30	31	36	36	43	55	55	55	68	72	86	98	110	120	136	163
MODEL TR																	
Total cooling capacity (3)	kW	63,1	75,7	92,7	89,3	104	124	144	144	157	190	226	262	289	329	359	427
Sensible cooling capacity (3)	kW	44,1	54,5	67,6	62,5	75,9	88,3	100	102	112	140	163	183	202	230	248	295
Total absorbed power (3)	kW	13	14,7	18,7	18,7	22,2	26,6	29,8	31	34,4	37,8	46	52,7	59,6	62,6	70,4	85
Compr.absorbed current (3)	A	28	29	33	33	41	52	52	51	63	67	80	92	103	112	127	152
Compressors																	
Quantity	n	2 / sll				2 / sll-t		2 / sll		2 / sll-t							
Circuits	nr.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Capacity steps	%	2	2	2	2	2	4	2	4	4	4	4	4	4	4	4	4
Refrigerant charge for each circuit (1-2-3)	kg	3	3	4	4	5	5	6	6	6	9	10	12	13	14	15	17
Watercooled condenser 3)																	
Water flow	l/s	3,03	3,6	4,43	4,3	5,02	6,01	6,9	6,95	7,62	9,06	10,83	12,51	13,89	15,58	17,11	20,4
Water flow	mc/h	10,9	13,0	15,9	15,5	18,1	21,6	24,8	25,0	27,4	32,6	39,0	45,0	50,0	56,1	61,6	73,4
Pressure drop	kPa	50	70	59	56	62	55	60	60	60	79	75	81	74	75	68	62
HEATING PUMP - MODEL RTP.W																	
Heating capacity (4)	kW	65,4	77,3	95,6	91,9	108	129	147,3	152	167	197	223	257	287	318	350	419
Total absorbed power (4)	kW	16,3	18,4	23,4	25,3	30	36	40,3	39,7	44	48,3	68,5	78,4	88,7	93,2	104,8	127
Compr. absorbed current (4)	A	31	32	38	40	49	63	63	62	76	81	112	128	143	156	177	212
Refrigerant charge for each circuit (4)	kg	7	7	8	7	8	9	10	13	13	16	17	27	28	21	22	24
CENTRIFUGAL FANS ON TREATED AIR DISCHARGE																	
Quantity	n	1															
Standard air flow	mc/h	11.000	13.200	15.400	17.600	19.800	20.900	22.000	27.500	30.800	33.000	38.500	41.000	44.000	49.500	55.000	66.000
Standard available pressure	Pa	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Rotation speed	rpm	564	637	715	584	645	671	715	556	598	659	434	465	490	528	479	548
Input power	kW	2,2	3	4	4	5,5	5,5	7,5	7,5	11	11	11	11	15	15	18,5	30
Absorbed current	A	5	7	9	9	12	12	15	15	22	22	22	22	29	29	40	57
Motor Weight	kg	19,2	22,4	30,4	30,4	41,9	41,9	51	51	88,5	88,5	88,5	88,5	107	107	121	146
Sound pressure level STD (5)	dB(A)	70	71	74	71	71	72	74	73	74	76	74	76	77	79	80	82
Available pressure - opt. 1M	Pa	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Rotation speed	rpm	667	726	792	676	727	749	788	618	659	689	490	549	538	576	522	581
Input power	kW	2,2	3	5,5	4	5,5	7,5	7,5	7,5	11	11	11	15	15	18,5	30	
Absorbed current	A	5	7	12	9	12	15	15	15	22	22	22	29	29	40	40	57
Motor Weight	kg	19,2	22,4	41,9	30,4	41,9	51	51	51	88,5	88,5	107	107	121	121	146	
Sound pressure level 1M (5)	dB(A)	70	71	74	71	72	73	74	73	75	76	74	76	77	79	80	83
Available pressure - opt. 2M	Pa	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Rotation speed	rpm	773	813	876	758	801	821	856	686	697	770	546	574	590	622	562	619
Input power	kW	3	4	5,5	5,5	7,5	7,5	11	11	11	15	15	15	15	18,5	22	37
Absorbed current	A	7	9	12	12	15	15	22	22	22	29	29	29	29	40	42	69
Motor Weight	kg	22,4	30,4	41,9	41,9	51	51	88,5	88,5	88,5	107	107	107	107	121	140	207
Sound pressure level 2M (5)	dB(A)	70	72	74	72	72	73	75	73	75	76	75	76	78	80	80	83
ELECTRICAL DATA																	
Standard available pressure																	
Max absorbed current	A	45	51	63	63	76	92	97	103	120	130	150	168	193	215	248	307
Inrush current	A	148	156	203	203	242	195	281	208	238	270	316	352	377	435	468	555
Available pressure 1M																	
Max absorbed current	A	45	51	66	63	76	95	97	103	113	130	150	175	193	226	248	307
Inrush current	A	148	156	206	203	242	198	281	208	231	270	316	359	377	446	468	555
Available pressure 2M																	
Max absorbed current	A	47	53	66	66	79	95	104	110	120	137	157	1755	193	226	250	319
Inrush current	A	150	158	206	206	245	198	288	215	238	277	323	359	377	446	470	567
Dimensions																	
Length vers. 2S and TR	mm	3.300	3.300	3.300	3.800	3.800	3.800	3.800	4.400	4.400	4.400	5.000	5.000	5.000	5.000	5.000	5.000
Length vers. 3S	mm	4.900	4.900	4.900	5.700	5.700	5.700	5.700	6.800	6.800	6.800	8.300	8.300	8.300	8.300	8.300	8.300
Width	mm	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
Height	mm	1.675	1.675	1.675	1.750	1.750	1.750	1.750	2.100	2.100	2.100	2.500	2.500	2.500	2.500	2.500	2.500
Weight RTR	kg	892	918	955	1.057	1.153	1.302	1.214	1.629	1.743	1.822	2.199	2.294	2.336	2.457	2.543	2.682
Weight RTP	kg	940	968	1.006	1.109	1.210	1.367	1.275	1.721	1.841	1.924	2.308	2.448	2.491	2.578	2.668	2.814
Power supply																	
		400 V / 3ph / 50 Hz +T +N															

- (1) Ambient air temperature: 27°C / 50% R.H. - Condensing water 29/35°C; 30% fresh air
 (2) Ambient air temperature: 27°C / 50% R.H. - Condensing water 29/35°C; 50% fresh air
 (3) Inlet air to the internal coil 27°C / 50% R.H. - Condensing water 29/35°C - External air 35°C
 (4) Internal air temperature: 20°C - External air temperature: +5°C / 70% R.H.
 (5) Average value estimated at 1 m from the unit (for versions 2S and TR) in free field in conformity to UNI EN 3746, with ducted air outlet fan

RTR.W - RTP.W Technical data for exhaust fans version 3S

RTR / RTP		572	692	842	812	992	1102	1302	1292	1472	1662	1992	2322	2492	2802	3102	3662	
CENTRIFUGAL EXHAUST FANS																		
Quantity	n	1																
Standard air flow	mc/h	11.000	13.200	15.400	17.600	19.800	20.900	22.000	27.500	30.800	33.000	38.500	41.000	44.000	49.500	55.000	66.000	
Standard available pressure	Pa	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Rotation speed	rpm	429	466	508	438	470	486	503	443	479	504	313	325	339	366	288	324	
Input power	kW	1,5	2,2	3	2,2	3	3	4	5,5	7,5	7,5	5,5	5,5	7,5	11	11	15	
Absorbed current	A	4	5	7	5	7	7	9	12	15	15	12	12	15	22	22	29	
Motor Weight	kg	14,4	19,2	22,4	19,2	22,4	22,4	30,4	41,9	51	51	41,9	41,9	51	88,5	88,5	107	
Sound pressure level STD (1)	dB(A)	71	73	76	71	72	74	75	74	76	77	74	76	78	80	80	83	
Available pressure - opt. 1M	Pa	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	
Rotation speed	rpm	551	572	602	533	555	569	581	512	544	564	378	388	398	421	342	371	
Input power	kW	1,5	2,2	3	3	4	4	5,5	7,5	7,5	11	7,5	7,5	11	11	15		
Absorbed current	A	4	5	7	7	9	9	12	15	15	22	15	15	22	22	29		
Motor Weight	kg	14,4	19,2	22,4	22,4	30,4	30,4	41,9	51	51	88,5	51	51	88,5	88,5	107		
Sound pressure level 1M (1)	dB(A)	71	73	76	72	73	74	75	74	76	77	75	77	78	80	81		
Available pressure - opt. 2M	Pa	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
Rotation speed	rpm	662	672	692	625	638	650	657	580	606	622	439	447	453	473	393		
Input power	kW	2,2	3	4	4	5,5	5,5	7,5	11	11	11	11	11	15	15			
Absorbed current	A	5	7	9	9	12	12	15	22	22	22	22	22	29	29			
Motor Weight	kg	19,2	22,4	30,4	30,4	41,9	41,9	41,9	51	88,5	88,5	88,5	88,5	107	107			
Sound pressure level 2M (1)	dB(A)	71	73	76	72	73	74	76	74	76	78	75	77	78	80			
ELECTRICAL DATA																		
Standard available pressure																		
Max absorbed current	A	49	56	70	69	83	99	107	115	136	146	162	180	208	237	270		
Total inrush current	A	152	161	210	209	249	202	291	220	254	286	328	364	392	457	490		
Available pressure 1M																		
Max absorbed current	A	49	56	73	70	85	105	109	115	129	153	166	190	215	248			
Total inrush current	A	152	161	213	210	251	208	293	220	247	293	332	374	399	468			
Available pressure 2M																		
Max absorbed current	A	52	60	75	75	91	107	116	126	143	159	179	197	215	255			
Inrush current	A	155	165	215	215	257	210	300	231	261	299	345	381	399	475			
Power supply		400 V / 3ph / 50 Hz +T +N																
Dimensions																		
Length	mm	4.900	4.900	4.900	5.700	5.700	5.700	5.700	6.800	6.800	6.800	8.300	8.300	8.300	8.300	8.300		
Width	mm	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300		
Height	mm	1.675	1.675	1.675	1.750	1.750	1.750	1.750	2.100	2.100	2.100	2.500	2.500	2.500	2.500	2.500		
Weight RTR	kg	1.137	1.168	1.209	1.389	1.489	1.638	1.560	2.130	2.255	2.334	2.927	3.022	3.074	3.239	3.380		
Weight RTP	kg	1.188	1.221	1.263	1.448	1.553	1.710	1.627	2.232	2.364	2.447	3.050	3.190	3.244	3.376	3.524		

(1) Average value at 1 m from the unit in free field, according to UNI EN 3746, with ducted outlet and exhaust fans

ROOF-TOP - R407C

PACKAGED WATER TO AIR ROOF-TOP UNITS

WITH SCROLL COMPRESSORS

RTR.W - RTP.W Technical data of options

MODEL	RTR.W/RTP.W	572	692	842	812	992	1102	1302	1292	1472	1662	1992	2322	2492	2802	3102	3662	
HOT WATER COIL																		
1R - 1-row coil																		
Heating capacity (1)	kW	57,8	64	69,6	83,4	88,9	91,6	94,3	131	139	144	178	184	192	204	217	239	
Water flow	mc/h	2,5	2,7	3	3,6	3,8	3,9	4,1	5,6	6	6,2	7,7	7,9	8,2	8,8	9,3	10,3	
Pressure drop (2)	kPa	21	26	31	26	29	31	33	38	44	47	44	48	51	59	53	52	
Pressure drop - air side	Pa	10	14	19	15	19	21	23	15	19	22	17	19	22	27	33	47	
2R - 2-row coil																		
Heating capacity (1)	kW	98,9	109	119	143	152	157	161	223	238	247	304	315	328	350	370	409	
Water flow	mc/h	4,3	4,7	5,1	6,1	6,5	6,7	6,9	9,6	10,2	10,6	13,1	13,6	14,1	15	15,9	17,6	
Pressure drop (2)	kPa	23	28	33	32	37	39	41	37	42	45	53	57	61	43	48	58	
Pressure drop - air side	Pa	20	28	38	30	38	42	46	31	38	43	34	38	44	55	67	95	
3R - 3-row coil																		
Heating capacity (1)	kW	129	143	155	186	198	204	210	291	310	322	397	411	427	456	483	534	
Water flow	mc/h	5,5	6,1	6,7	8	8,5	8,8	9	12,5	13,3	13,8	17,1	17,7	18,4	19,6	20,8	23	
Pressure drop (2)	kPa	17	21	25	34	38	41	43	46	53	57	37	39	43	48	54	66	
Pressure drop - air side	Pa	30	42	57	45	56	62	69	46	57	65	51	57	66	82	100	142	
POST-HEATING COIL																		
Hot water																		
Heating capacity (3)	kW	62,5	69,1	75,2	90	96,1	99	101,8	141	150	156	192	199	207	221	234	259	
Water flow	mc/h	2,7	3	3,2	3,9	4,1	4,3	4,4	6,1	6,5	6,7	8,3	8,6	8,9	9,5	10,1	11,1	
Pressure drop (2)	kPa	25	30	36	30	34	36	38	45	51	55	52	56	60	68	61	60	
Pressure drop - air side	Pa	10	14	19	15	19	21	23	15	19	22	17	19	22	27	33	47	
Hot gas																		
Heating capacity (4)	kW	46,9	51,8	56,4	67,5	72	74,2	76,3	106	113	117	144	149	155	166	175	194	
Pressure drop - air side	Pa	10	14	19	15	19	21	23	15	19	22	17	19	22	27	33	47	
ELECTRIC HEATING COILS																		
Max power	kW	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	
Max Input current	A	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	10,9	
Max power	kW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	
Max Input current	A	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	21,7	
Max power	kW	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	
Max Input current	A	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	32,6	
Max power	kW	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Max Input current	A	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	43,3	
Max power	kW	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	
Max Input current	A	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	
Max power	kW	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
Max Input current	A	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	86,6	
Max power	kW	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
Max Input current	A	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	
Max power	kW	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	
Max Input current	A	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
Steps	n.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Power supply	V/f/Hz	400 / 3 / 50																
HUMIDIFIERS																		
Min/Max steam production	kg/h	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	1,5 - 3	
Max power	kW	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	2,35	
Max current	A	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	9,8	
Power supply	V/f/Hz	230 / 1 / 50																
Min/Max steam production	kg/h	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	5 - 8	
Max power	kW	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Max current	A	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	8,7	
Power supply	V/f/Hz	400 / 3 / 50																
Min/Max steam production	kg/h	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	
Max power	kW	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	11,35	
Max current	A	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	16,3	
Power supply	V/f/Hz	400 / 3 / 50																
Min/Max steam production	kg/h	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	25-45	
Max power	kW	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	33,8	
Max current	A	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	48,8	
Power supply	V/f/Hz	400 / 3 / 50																
CROSS-FLOW HEAT RECOVERY																		
Capacity of heat recovery	kW	11,5	12,7	13,8	15	16,1	17,3	17,3	21,9	25,3	27,6	32,2	34,5	36,8	41,4	46	54	
30% of treated air flow	mc/h	3.300	3.960	4.620	5.280	5.940	6.270	6.600	8.250	9.240	9.900	11.550	12.300	13.200	14.850	16.500	19.800	
Pressure drop of exhaust air	Pa	107	111	134	92	98	101	111	141	116	137	95	102	122	144	184	157	
Pressure drop of fresh air	Pa	104	107	130	89	95	98	107	135	111	133	92	98	118	138	177	151	
Weight of heat recovery	kg	37	37	37	69	72	72	72	111	176	176	198	198	198	198	197	215	
Capacity of heat recovery	kW	16,1	17,2	19,5	25,3	29,9	32,2	31,1	39,1	46	44,8	52,9	56,4	56,3	65,5	72,4	85	
50% of treated air flow	mc/h	5.500	6.600	7.700	8.800	9.900	10.450	11.000	13.750	15.400	16.500	19.250	20.504	22.000	24.750	27.500	33.000	
Pressure drop of exhaust air	Pa	89	111	148	136	132	138	103	131	132	112	149	161	164	152	185	277	
Pressure drop of fresh air	Pa	86	107	142	131	127	133	100	127	128	108	143	155	157	147	178	266	
Weight of heat recovery	kg	72	72	72	139	202	202	172	205	234	223	216	216	200	259	259	259	
GAS FIRED BURNERS																		
Nominal heating capacity	kW	60	75	100	75	90	120	120	125	125	150	175	175	225	250	300	350	
Pressure drop at the nominal flow	Pa	180	180	140	90	80	50	55	95	120	100	105	105	75	50	50	40	
Length of the burner group	mm	1.400	1.400	1.400	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.400	1.400	1.400	
Weight of the burner group	kg	338	358	387	295	315	395	395	386	386	416	473	473	553	675	735	805	
BOILER																		
Nominal heating capacity	kW	70	70	70	70	70	140	140	140	140	140	210	210	210	280	280	280	
Natural gas flow	mc/h	7,36	7,36	7,36	7,36	7,36	14,7	14,7	14,7	14,7	14,7	22,1	22,1	22,1	29,5	29,5	29,5	
Length of the boiler group	mm	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.500	1.500	1.500	2.000	2.000	2.000	
Weight of the boiler group	kg	170	170	170	170	170	230	230	230	230	230	345	345	345	460	460	460	

- (1) Inlet air temperature to the coil: 20°C - Hot water temperature: 80/60°C
- (2) Pressure drop of the coil including the 3-way mixing valve
- (3) As per outlet air temperature coming from the evaporating - Hot water: 80/60°C
- (4) As per outlet air temperature coming from the evaporating coil