

EXTRA 2 PLUS

POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS).

HEAT EXCHANGER:

2 copper finned and tinned heat exchangers.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate Polywarm® coated.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



EXTRA 2 PLUS WRB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Lower	Middle	
200	3084162352301	0,76	0,76	B
300	3084162352302	0,94	0,76	C
500	3084162352303	1,58	0,76	C
800	3084162352310	2,63	0,94	B
1000	3084162352311	3,17	1,58	C
1500	3084162352312	4,54	2,63	C
2000	3084162352313	5,26	3,17	B



EXTRA 2 PLUS WRC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Lower	Middle	
500	3082162352333	1,58	0,76	C
800	3082162352340	2,63	0,94	C
1000	3082162352341	3,17	1,58	C
1500	3082162352342	4,54	2,63	C
2000	3082162352343	5,26	3,17	C
2500	3082162352344	6,34	4,54	
3000	3082162352345	6,34	5,26	
4000	3082162352346	6,34	6,34	
5000	3082162352347	6,34	6,34	

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Heated volume by electric immersion heater [l]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		5240000000051	5240000000052	5240000000053
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	49	87	65	44
300	76	136	102	68
500	127	228	171	114
800	178	318	239	159
1000	243	436	327	218
1500	288	516	387	258
2000	443	793	595	396
2500	577	1033	775	517
3000	577	1033	775	517
4000	797	1428	1071	714
5000	1040	1864	1398	932

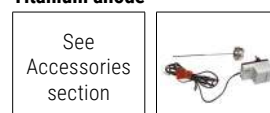
	THREEPHASE				
	4 kW	5 kW	6 kW	9 kW	12 kW
	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
	33	//	//	//	//
	51	//	//	//	//
	85	68	57	//	//
	120	96	80	//	//
	163	131	109	73	54
	194	155	129	86	65
	297	238	198	132	99
	387	310	258	172	129
	387	310	258	172	129
	535	428	357	238	178
	699	559	466	311	233

HEAT MANAGER + electric immersion heater 1,5 kW + probe +3m cable

Art. Nr.	ELECTRIC IMMERSION HEATER
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

See Accessories section

Titanium anode



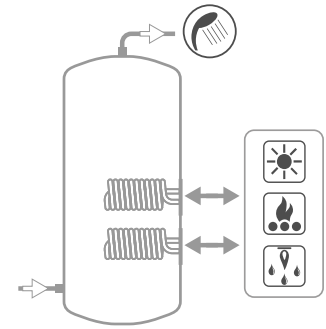
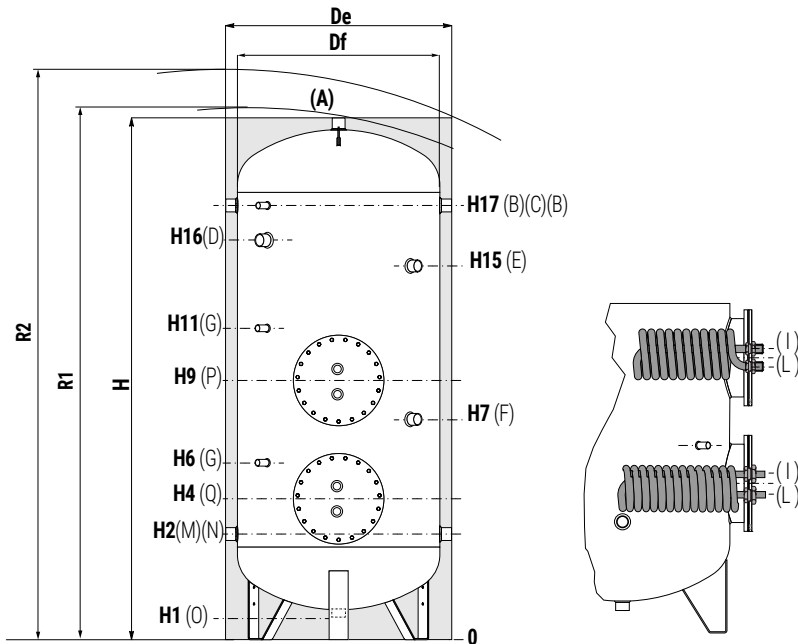
Thermometer

Art. Nr.
5032240000107
5 units box

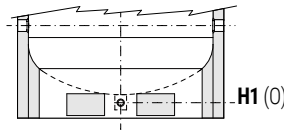
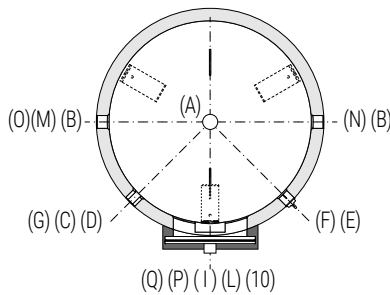
EXTRA 2 PLUS

POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	6 bar			



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C-G	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 1" 1/2 G F (For models >800 connection 2" G F)
E	Connection for 2nd magnesium anode 1" 1/4 G F (only for models > 1500)
F	Connection for magnesium anode 1" 1/4 G F
I	Primary circuit inlet heat exchanger
L	Primary circuit outlet heat exchanger
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain
P	Upper heat exchanger flange
Q	Lower heat exchanger flange



Models from 1500 to 5000 are equipped with a practical skirt support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

EXTRA 2 PLUS WRB - HARD FOAM INSULATION

Model	Volume [lt]	De	H	R2	H1	H2	H4	H6	H7	H9	H11	H15	H16	H17	P Q	Connections F				
																A	B-M-N	O	I-L lower	I-L upper
200	193	550	1449	1560	85	325	410	520	650	860	970	//	1075	1185	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
300	295	650	1499	1640	85	350	435	545	735	885	995	//	1100	1210	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
500	503	750	1800	1960	85	375	460	570	760	910	1020	//	1329	1485	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
800	794	900	2135	2330	85	405	540	690	870	1090	1240	//	1610	1765	Øi300/Øe380	1" 1/4	1" 1/4	1" 1/4	1"	1"
1000	1043	1000	2221	2450	105	458	593	743	993	1143	1293	//	1664	1818	Øi300/Øe380	1" 1/2	1" 1/2	1" 1/2	1"	1"
1500	1445	1100	2415	2660	109	440	675	825	1075	1250	1400	//	1895	2050	Øi300/Øe380	2"	1" 1/2	1"	1" 1/4	1"
2000	1977	1300	2492	2820	91	467	692	867	842	1262	1437	1952	1877	2057	Øi350/Øe430	2"	2"	1"	1" 1/4	1"

EXTRA 2 PLUS WRC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H4	H6	H7	H9	H11	H15	H16	H17	P Q	Connections F				
																		A	B-M-N	O	I-L lower	I-L middle
500	503	870	650	1841	1990	2090	101	416	501	611	801	951	1061	//	1370	1526	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
800	794	970	750	2188	2220	2400	113	433	518	628	898	1118	1228	//	1638	1793	Øi300/Øe380	1" 1/4	1" 1/4	1" 1/4	1"	1"
1000	1043	1070	850	2242	2270	2490	101	454	539	649	989	1139	1249	//	1660	1814	Øi300/Øe380	1" 1/2	1" 1/2	1" 1/2	1"	1"
1500	1445	1210	950	2440	2495	2730	109	440	525	635	1075	1250	1360	//	1895	2050	Øi300/Øe380	2"	1" 1/2	1"	1" 1/4	1"
2000	1977	1360	1100	2492	2570	2850	91	467	542	652	842	1262	1372	1952	1877	2057	Øi350/Øe430	2"	2"	1"	1" 1/4	1"
2500	2313	1350	1250	2311	2480	2690	140	551	626	736	876	1201	1311	1816	1732	1891	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4
3000	2919	1350	1250	2811	2950	3130	140	551	626	736	876	1476	1586	2316	2232	2391	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4
4000	3767	1500	1400	2875	3050	3250	114	570	645	755	895	1495	1605	2315	2238	2410	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4
5000	4981	1700	1600	2915	3130	3380	94	580	655	765	935	1505	1615	2335	2265	2420	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4

EXTRA 2 PLUS

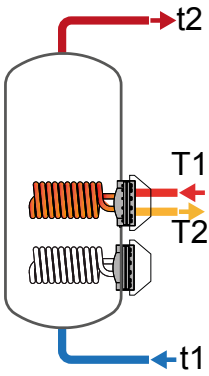
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Non-scaling sanitary water

UPPER
HEAT EXCHANGER



Model	Primary flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	1,4	58	58	39	24	7	11	14	19	172	270	342	467
	0,7	64	64	43	27	6	10	12	17	147	246	295	418
300	1,4	89	89	59	36	7	11	14	19	172	270	342	467
	0,7	96	96	64	40	6	10	12	17	147	246	295	418
500	1,4	175	175	115	70	7	11	14	19	172	270	342	467
	0,7	192	193	127	79	6	10	12	17	147	246	295	418
800	1,4	247	248	162	99	9	14	17	24	214	353	428	586
	0,7	274	276	182	112	8	13	16	21	203	329	396	535
1000	1,4	187	187	125	77	14	23	28	37,4	347	565	680	923
	0,7	213	216	145	91	13	21	25	33	321	509	606	809
1500	1,4	168	170	115	72	23	36	44	56	562	900	1076	1443
	0,7	204	208	142	91	21	32	38	49	510	789	931	1222
2000	1,4	201	203	138	87	27	43	51	68	668	1062	1265	1688
	0,7	249	254	174	112	24	37	44	57	602	921	1082	1409
2500	3	126	126	85	53	40	65	77	104	988	1594	1910	2577
	1,5	146	148	102	65	37	57	68	90	906	1417	1678	2218
3000	3	160	161	109	69	46	74	88	118	1133	1820	2177	2925
	1,5	190	193	132	85	42	65	77	101	1033	1605	1895	2493
4000	3	176	178	121	76	55	87	104	139	1349	2150	2564	3428
	1,5	212	217	149	96	50	76	89	117	1221	1876	2206	2881
5000	3	234	236	160	101	55	87	104	139	1349	2150	2564	3428
	1,5	282	288	198	127	50	76	89	117	1221	1876	2206	2881

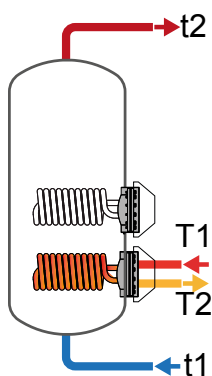
Model	Primary flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mmH ₂ O]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	1,4	138	182	194	215	247	353	410	511	895	88
	0,7	134	178	186	207	228	334	373	471	223	22
300	1,4	198	256	268	289	307	428	485	585	895	88
	0,7	194	252	261	281	287	408	447	546	223	22
500	1,4	351	448	460	481	460	619	676	776	895	88
	0,7	347	444	452	472	440	599	639	737	223	22
800	1,4	519	663	676	702	655	887	947	1073	1936	190
	0,7	517	659	670	693	646	867	921	1032	484	47
1000	1,4	744	951	970	1011	963	1309	1401	1596	1861	183
	0,7	739	942	958	992	943	1264	1342	1504	465	46
1500	1,4	1033	1324	1354	1415	1389	1894	2035	2329	3097	304
	0,7	1024	1306	1329	1378	1347	1805	1919	2152	774	76
2000	1,4	1422	1816	1849	1920	1845	2488	2651	2989	3733	366
	0,7	1411	1792	1819	1873	1792	2375	2504	2766	933	91
2500	3	1472	1900	1953	2064	2098	2909	3162	3696	2878	282
	1,5	1458	1870	1914	2004	2032	2768	2977	3409	720	71
3000	3	2081	2669	2729	2853	2799	3822	4107	4706	2878	282
	1,5	2065	2633	2682	2781	2719	3650	3882	4360	720	71
4000	3	2657	3398	3467	3611	3511	4760	5091	5782	5530	542
	1,5	2636	3353	3408	3520	3409	4541	4805	5345	1382	136
5000	3	3441	4378	4447	4591	4295	5740	6071	6762	5530	542
	1,5	3420	4333	4388	4500	4193	5521	5785	6325	1382	136

EXTRA 2 PLUS

HEAT EXCHANGERS TECHNICAL DATA



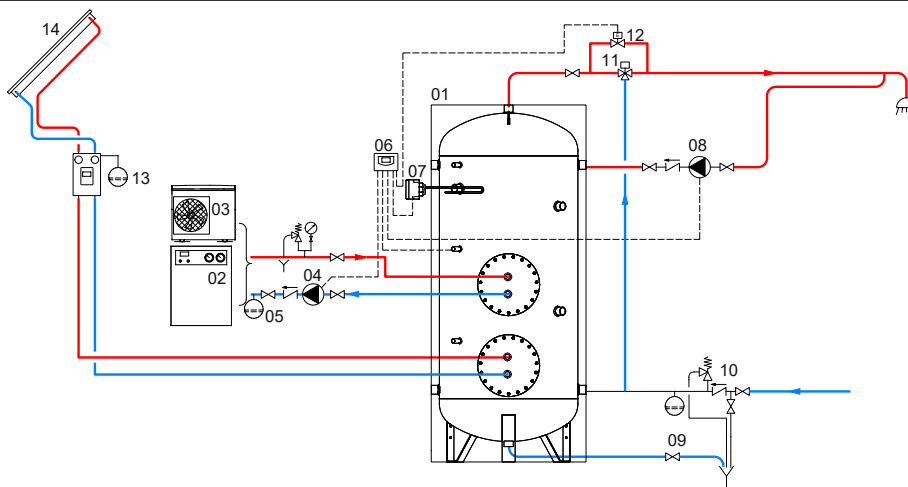
LOWER
HEAT EXCHANGER



Model	Primary flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	1,4	95	97	65	40	7	11	14	19	172	270	342	467
	0,7	106	107	72	45	6	10	12	17	147	246	295	418
300	1,4	119	118	79	49	9	14	17	24	214	353	428	586
	0,7	130	131	87	54	8	13	16	21	203	329	396	535
500	1,4	132	132	89	55	14	23	28	37	347	565	680	923
	0,7	150	151	103	65	13	21	25	33	321	509	606	809
800	1,4	137	138	94	59	23	36	44	56	562	900	1076	1443
	0,7	164	167	115	73	21	32	38	49	510	789	931	1222
1000	1,4	154	155	105	67	27	43	51	68	668	1062	1265	1688
	0,7	187	191	132	85	24	37	44	57	602	921	1082	1409
1500	3	139	140	95	59	40	65	77	104	988	1594	1910	2577
	1,5	162	164	113	72	37	57	68	90	906	1417	1678	2218
2000	3	168	169	115	72	46	74	88	118	1133	1820	2177	2925
	1,5	199	202	139	89	42	65	77	101	1033	1605	1895	2493
2500	3	163	164	112	71	55	87	104	139	1349	2150	2564	3428
	1,5	197	200	139	102	50	76	89	117	1221	1876	2206	2881
3000	3	214	216	147	93	55	87	104	139	1349	2150	2564	3428
	1,5	258	263	181	117	50	76	89	117	1221	1876	2206	2881
4000	3	274	276	187	118	55	87	104	139	1349	2150	2564	3428
	1,5	330	337	232	149	50	76	89	117	1221	1876	2206	2881
5000	3	361	364	247	156	55	87	104	139	1349	2150	2564	3428
	1,5	436	445	305	196	50	76	89	117	1221	1876	2206	2881

Model	Primary flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mmH ₂ O]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	1,4	212	274	285	306	320	445	502	602	895	88
	0,7	207	270	278	298	301	425	464	563	223	22
300	1,4	313	406	418	445	449	630	690	816	1936	190
	0,7	312	402	413	436	440	610	664	775	484	47
500	1,4	547	706	725	765	767	1063	1155	1350	1861	183
	0,7	543	696	712	746	746	1019	1096	1259	465	46
800	1,4	896	1153	1182	1243	1252	1723	1864	2157	3097	304
	0,7	887	1134	1158	1207	1210	1634	1748	1980	774	76
1000	1,4	1158	1486	1519	1590	1581	2158	2321	2659	3733	366
	0,7	1147	1462	1489	1543	1528	2045	2174	2436	933	91
1500	3	1622	2087	2140	2251	2248	3097	3349	3883	2878	282
	1,5	1608	2058	2101	2191	2182	2955	3164	3596	720	71
2000	3	2185	2799	2859	2983	2903	3952	4237	4836	2878	282
	1,5	2169	2763	2812	2911	2823	3780	4012	4490	720	71
2500	3	2496	3197	3266	3410	3350	4559	4890	5581	4588	450
	1,5	2474	3151	3206	3319	3248	4339	4603	5143	1147	112
3000	3	3189	4064	4133	4277	4044	5426	5757	6448	5530	542
	1,5	3168	4018	4073	4186	3941	5207	5471	6011	1382	136
4000	3	4002	5080	5149	5293	4856	6441	6773	7464	5530	542
	1,5	3981	5034	5089	5202	4754	6222	6486	7026	1382	136
5000	3	5193	6568	6637	6781	6047	7930	8261	8952	5530	542
	1,5	5172	6523	6578	6690	5945	7711	7975	8515	1382	136

EXAMPLE OF INSTALLATION WITH EXTRA 2 PLUS



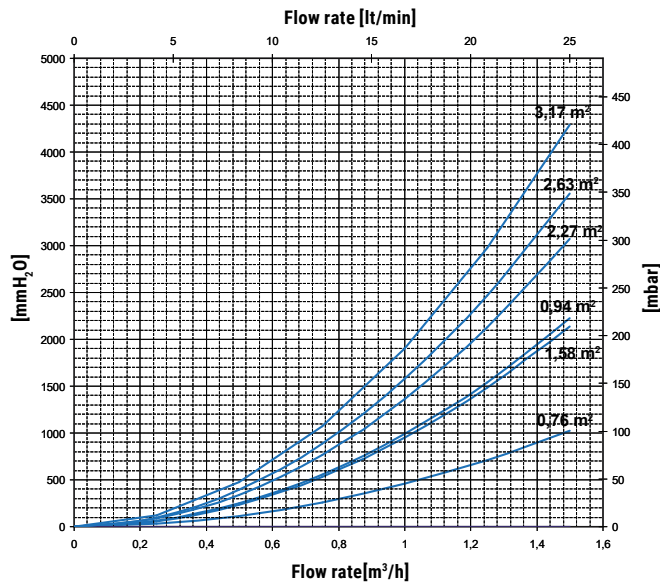
1	Extra 2 Plus	5	Expansion vessel	9	Blowdown valve	13	Solar system circulation group
2	Generator	6	Electronic Control/thermostat	10	Hydraulic safety group	14	Solar panels
3	Generator (Heat pump)	7	Electric immersion heater (optional)	11	Thermostatic mixing valve		
4	Circulation group	8	D.H.W. recirculation group	12	By-pass solenoid valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

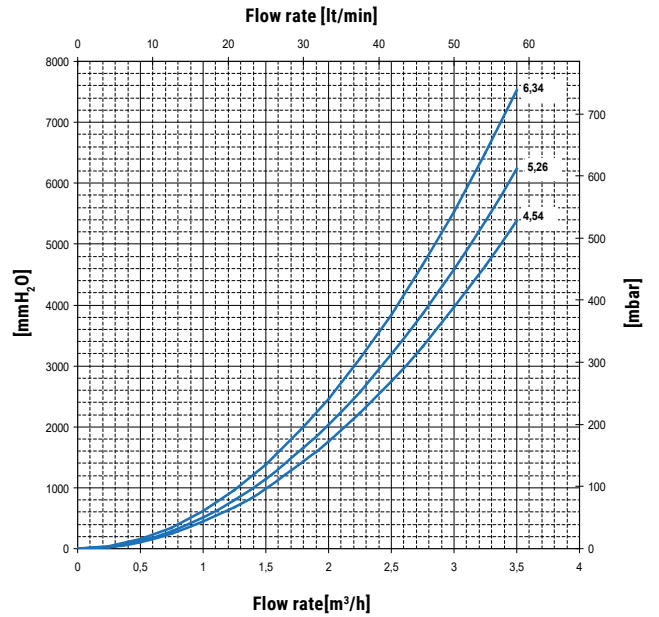
EXTRA PLUS

HEAT EXCHANGERS TECHNICAL DATA

Heat exchanger surface [m²]:
0,76 - 0,94 - 1,58 - 2,63 - 3,17



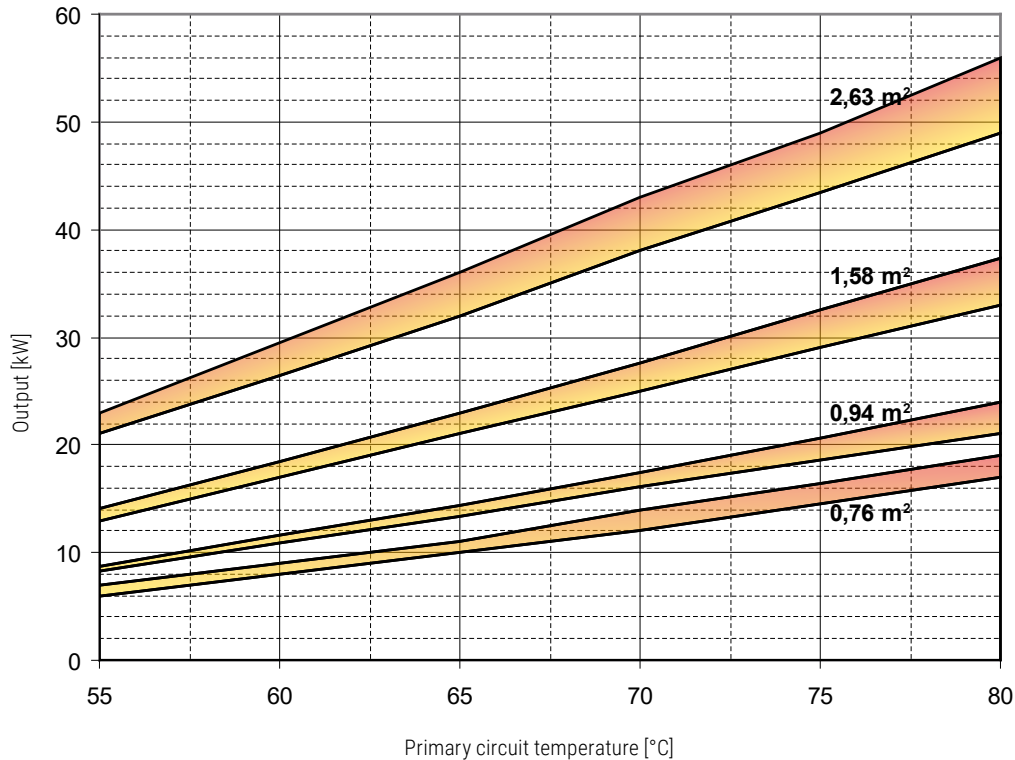
Heat exchanger surface [m²]:
4,54 - 5,26 - 6,34



EXTRA PLUS

HEAT EXCHANGERS TECHNICAL DATA

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curve refers to the minimum primary flow rate)

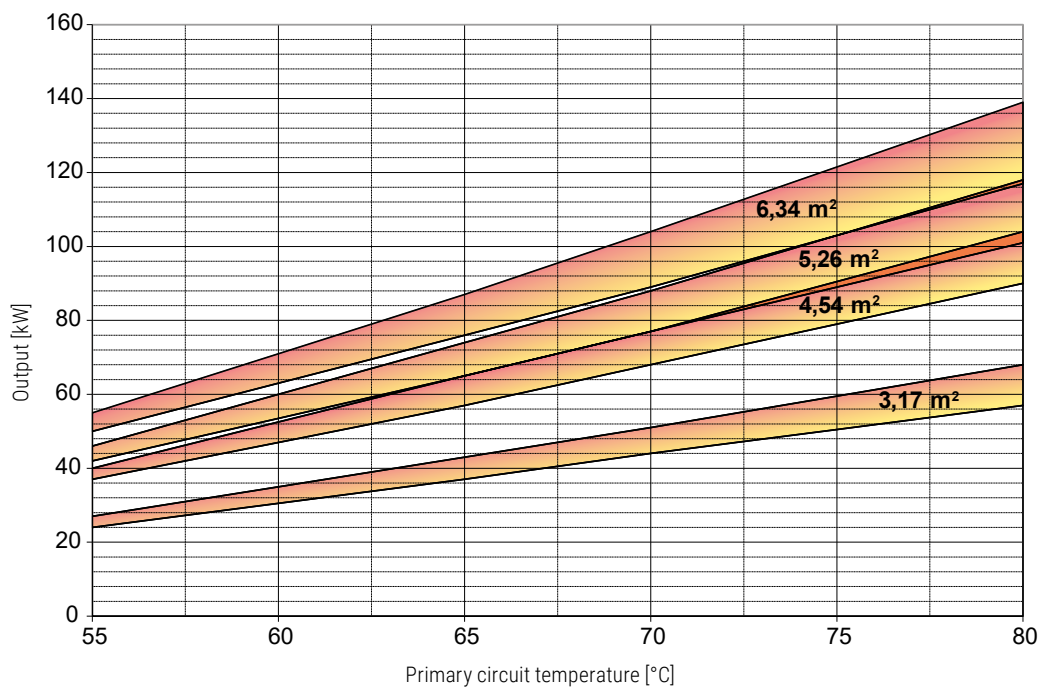


Heat exchanger surface	0,76 m ²		0,94 m ²		1,58 m ²		2,63 m ²	
Flow rate [m ³ /h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	1,4	0,7	1,4	0,7	1,4	0,7	1,4	0,7

EXTRA PLUS

HEAT EXCHANGERS TECHNICAL DATA

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curve refers to the minimum primary flow rate)



Heat exchanger surface	3,17 m ²		4,54 m ²		5,26 m ²		6,34 m ²	
Flow rate [m ³ /h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	1,4	0,7	3	1,5	3	1,5	3	1,5