BOLLY® 1 XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER

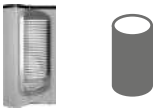


APPLICATION
Production and storage of domestic hot water (DHW).
All the connections are aligned on the front and on the back for quick and easy installation.
MATERIAL
Mild steel Polywarm® coated (Attestation ACS - EN 16421)
HEAT EXCHANGER
Mild steel Polywarm® coated heat exchanger.
INSULATION
HARD: High thermal insulation with ecological polyurethane hard foam.
HARD FOAM (CLASS "A" MODELS): hard polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material.
SOFT (DISMOUNTABLE): 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.
DRAIN
External confluence through drain connection.
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 and connection for electric immerion heater.
WARRANTY
5 years (See general sales conditions and warranty)
ACCESSORIES AND SPARE PARTS
See Accessories section for the entire list.



PROMPT AVAILABILITY

	Model	Art. Nr.	Heat exchangers surface [m²]	ErP ENERGY EFFICIENCY CLASS
 **BOLLY® 1 XL WB** HARD FOAM INSULATION	200	3104162330011	2	B
	300	3104162330012	3,4	B
	400	3104162330013	4,4	C
	500	3104162330014	5,4	C
	800	3104162330015	6,0	B
	1000	3104162330016	6,5	B
	1500	3104162330060	7,7	C
 **BOLLY® 1 XL WC** DISMOUNTABLE SOFT FLEECE INSULATION	800	3104162320007	6,0	C
	1000	3104162320008	6,5	C
	1500	3103162321160	7,7	C
 **BOLLY® 1 XL WB class A** HARD FOAM INSULATION	200	3104162330051	2	A
	300	3104162330052	3,4	A
	500	3104162330053	5,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod.	Heated volume by electric immersion heater [lt]	MONOPHASE 1,5 kW	MONOPHASE 2 kW	MONOPHASE 3 kW	THREEPHASE 4 kW	THREEPHASE 5 kW	THREEPHASE 6 kW	THREEPHASE 9 kW	THREEPHASE 12 kW
		5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
200	159	285	214	142	//	//	//	//	//
300	235	421	316	210	158	//	//	//	//
400	353	632	474	316	237	//	//	//	//
500	413	741	555	370	278	222	//	//	//
800	668	1197	898	598	449	359	299	199	//
1000	874	1565	1174	783	587	470	391	261	196
1500	1000	1791	1343	895	671	537	448	298	224

FULL CONTROL electronic unit (mounted on tank)

Art. Nr.	for models
5220280000004	WC
5220280000005	WB



For Class A models, only the version not pre-assembled on the tank is available.

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

Art. Nr.	Output [kW]
5240000000074	1,5
5240000000075	2
5240000000076	3



Titanium anode

See Accessories section



Products designed and manufactured for using within temperature and pressure limits in accordance to Art. 4.3 Directive 2014/68/EU (P.E.D.)

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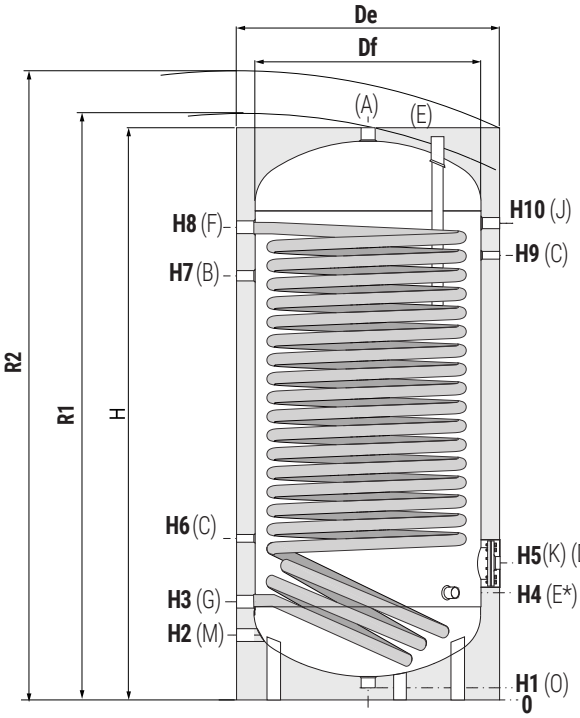
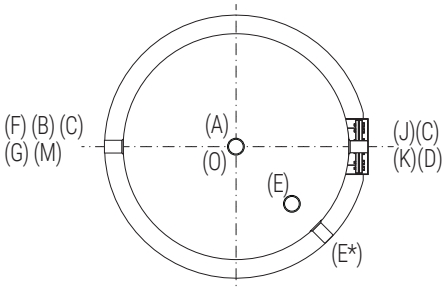
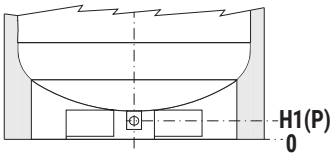
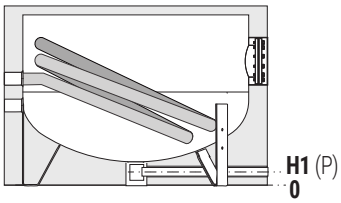
	STORAGE		HEAT EXCHANGER	
Model	Pmax	Tmax	Pmax	Tmax
200 ÷ 800	10 bar	90 °C	12 bar	110 °C
1000,1500	8 bar			



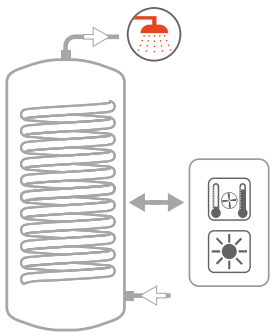




Models 1500 are equipped with a practical skirt support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow total emptying.



Only for models 800- 1000



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation G 1/2" F
D	Connection for electric immersion heater
E	Connection for magnesium anode G 1"1/4 F (for models ≤ lt.1000)
E*	Connection for magnesium anode G 1"1/4 F (For model lt.1500)
F	Primary circuit inlet G 1"1/4 F
G	Primary circuit outlet G 1"1/4 F
J	Connection for 2nd magnesium anode G 1"1/4 F (for models lt.1500)
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Drain G 1"1/4 F
P	Drain for models >500

BOLLY® 1 XL WB + XL WB CLASS A(HARD FOAM INSULATION)

Model	Volume	Weight	Df	H	De	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	K	M	B	A	D	P
	[lt]	[Kg]	[mm]																Connections F				
200	189	96	//	1440	550	//	1560	71	215	285	//	325	405	1055	1190	1190	//	Øi120/Øe180	3/4"	3/4"	1"1/4	1"1/2	//
300	291	130	//	1500	650	//	1650	71	241	321	//	381	431	1091	1211	1211	//	Øi120/Øe180	1"	1"	1"1/4	1"1/2	//
400	422	154	//	1780	700	//	1930	71	256	336	//	396	446	1316	1471	1471	//	Øi120/Øe180	1"	1"	1"1/4	1"1/2	//
500	497	174	//	1800	750	//	1960	71	266	346	//	411	466	1326	1486	1486	//	Øi120/Øe180	1"	1"	1"1/4	1"1/2	//
800	789	264	//	2170	900	//	2360	101	338	418	//	483	538	1548	1808	1808	//	Øi170/Øe240	1"	1"	1"1/4	2"	3/4"
1000	1038	303	//	2230	1000	//	2460	89	359	439	//	499	559	1584	1829	1829	//	Øi170/Øe240	1"1/4	1"	1"1/2	2"	3/4"
1500	1438	368	//	2420	1100	//	2670	109	335	425	495	575	545	1825	2015	1940	2065	Øi300/Øe380	1"1/2	1	2	2	1"

Net volume data according to EN 15332 available on product label.

BOLLY® 1 XL WC (DISMOUNTABLE SOFT FLEECE INSULATION)

Model	Volume	Weight	Df	H	De	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	K	M	B	A	D	P
	[lt]	[Kg]	[mm]																Connections F				
800	789	226	750	2190	950	2330	2400	101	338	418	//	483	538	1548	1808	1808	//	Øi170/Øe240	1"	1"	1"1/4	2"	3/4"
1000	1038	255	850	2250	1050	2420	2500	89	359	439	//	499	559	1584	1829	1829	//	Øi170/Øe240	1"1/4	1"	1"1/2	2"	3/4"
1500	1438	358	950	2440	1150	2630	2710	109	335	425	495	575	545	1825	2015	1940	2065	Øi300/Øe380	1"1/2	1	2	2	1"

Net volume data according to EN 15332 available on product label.

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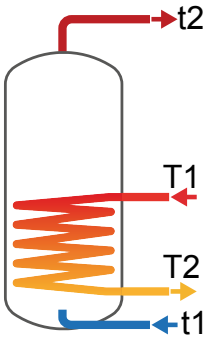
BOLLY® 1 XL

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

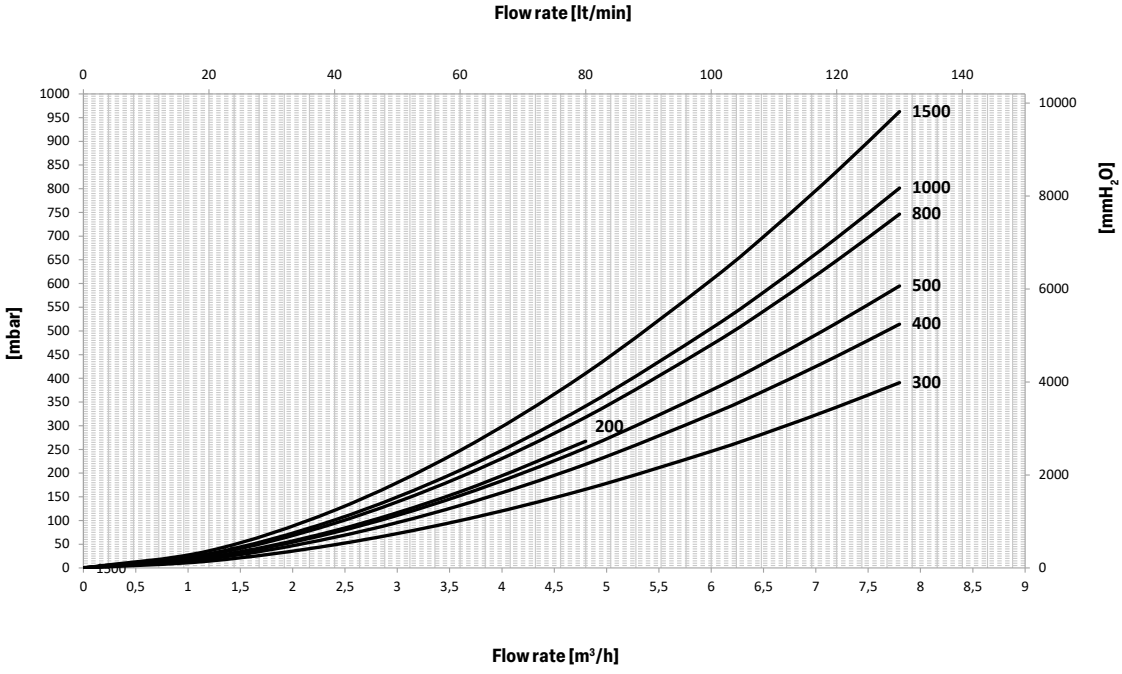
Model	Primary flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary from 10°C to t2 constant use of DHW production					DHW continuous production lt/h from 10°C to t2 and primary at T1				
	[m³/h]	T1/t2				T1/t2					T1/t2				
		55/50	65/60	70/60	80/60	55/45	65/45	70/45	80/45	80/60	55/45	65/45	70/45	80/45	80/60
200	2,5	40	42	30	20	21	31	36	47	34	522	773	899	1153	589
	1,25	49	52	36	24	19	28	32	40	30	468	677	780	990	522
300	3	44	46	32	22	30	45	52	66	58	751	1104	1281	1640	1016
	1,5	55	57	41	27	27	39	44	56	51	664	951	1093	1377	893
400	3,5	47	49	35	23	42	61	71	90	78	1033	1510	1747	2229	1355
	1,75	59	62	44	30	37	53	60	75	68	915	1298	1486	1863	1190
500	3,5	49	51	36	24	48	70	81	103	78	1198	1740	2009	2551	1355
	1,75	62	65	47	31	43	60	68	85	68	1060	1487	1696	2114	1190
800	5	59	61	43	29	64	93	107	136	116	1571	2291	2650	3372	2022
	2,5	72	76	55	37	57	80	92	115	103	1412	1993	2277	2845	1790
1000	8	65	68	48	32	72	106	124	158	131	1780	2632	3058	3925	2290
	4	76	80	57	38	66	95	110	139	119	1642	2364	2720	3436	2085
1500	8	79	82	59	39	83	122	141	180	156	2057	3017	3497	4465	2728
	4	94	99	71	48	76	109	124	156	141	1887	2691	3086	3878	2462



Model	Primary flow rate	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	
	[m³/h]	T1/t2				T1/t2				[mmH₂O]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2,5	303	399	420	462	634	888	989	1193	871	85
	1,25	294	383	400	435	590	811	894	1062	260	25
300	3	458	600	629	689	934	1299	1441	1728	759	74
	1,5	443	574	598	645	864	1176	1290	1517	235	23
400	3,5	655	855	894	974	1309	1811	2001	2386	1287	126
	1,75	635	819	850	913	1214	1641	1791	2093	407	40
500	3,5	769	1001	1046	1137	1528	2103	2319	2752	1491	146
	1,75	746	959	994	1064	1417	1901	2068	2403	472	46
800	5	1165	1510	1570	1691	2160	2962	3249	3826	3502	343
	2,5	1138	1461	1508	1603	2032	2723	2950	3405	1043	102
1000	8	1482	1920	1991	2136	2609	3587	3928	4621	8530	837
	4	1459	1875	1935	2054	2499	3372	3657	4230	2561	251
1500	8	1986	2557	2637	2798	3289	4468	4852	5626	10247	1005
	4	1958	2503	2569	2701	3153	4207	4523	5157	3079	302

HEAT EXCHANGERS PRESSURE DROP

Heat exchangers surface [m²]	
200	2
300	3,4
400	4,4
500	5,4
800	6
1000	6,5
1500	7,7

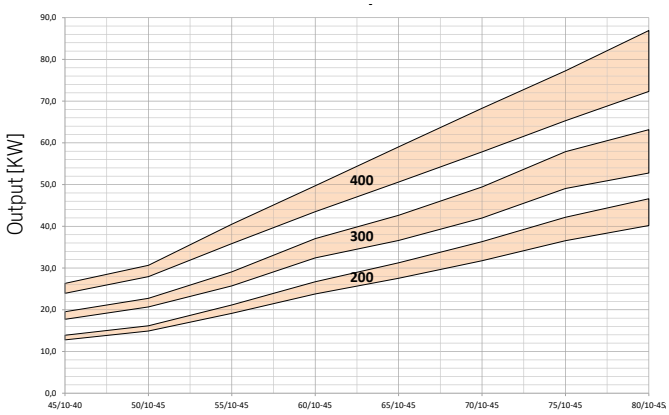


BOLLY® **1 XL**

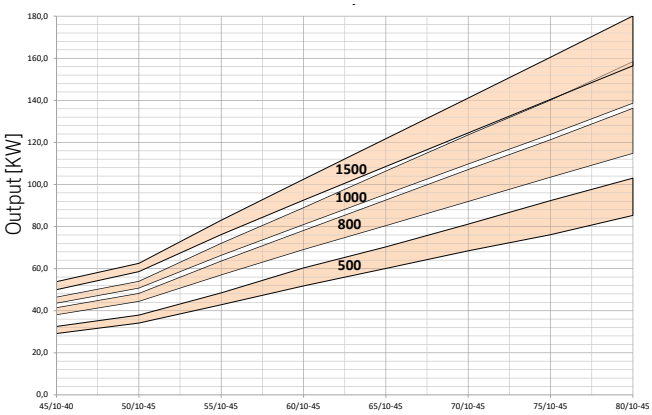
HEAT EXCHANGERS TECHNICAL DATA



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 curves refer to the minimum primary flow rate)



PRIMARY/SECONDARY IN-OUT Temperature [°C]

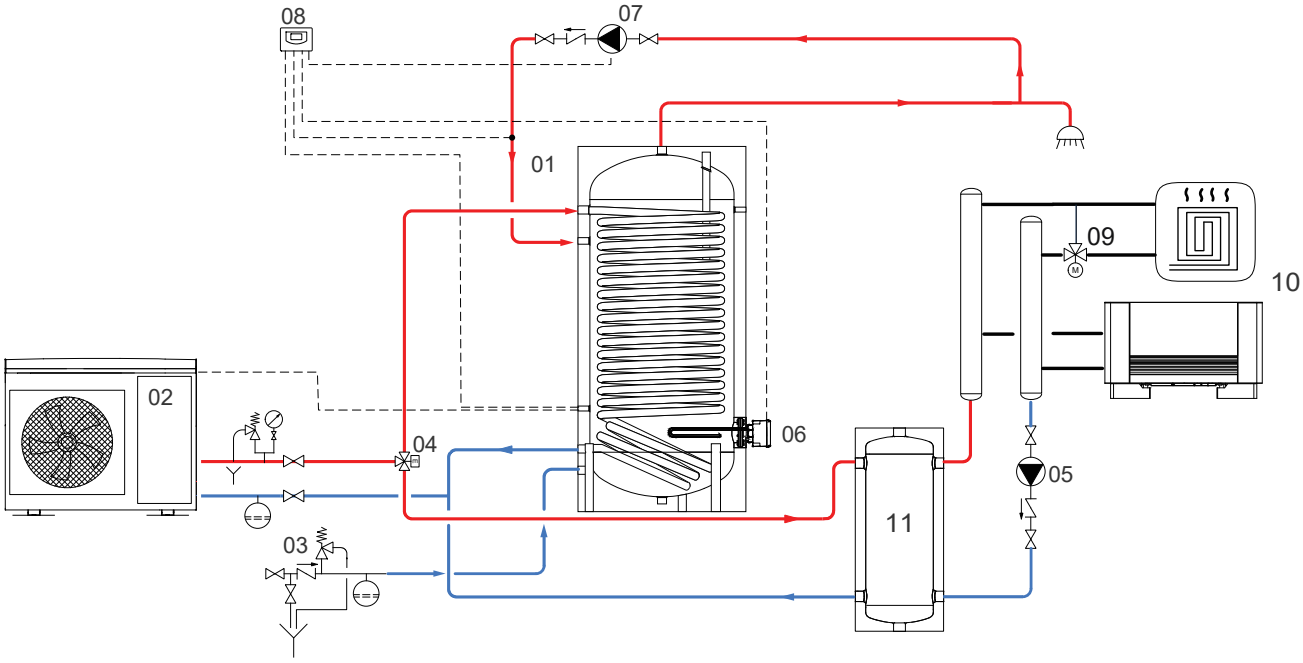


PRIMARY/SECONDARY IN-OUT Temperature [°C]

Model	200		300		400	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN
	2,5	1,25	3	1,5	3,5	1,75

Model	500		800		1000		1500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	3,5	1,75	5	2,5	8	4	8	4

EXAMPLE OF INSTALLATION WITH **BOLLY® 1 XL**



1	Bolly® 1 XL	4	Motorized 3-way valve	7	D.H.W. recirculation group	10	Heating units
2	Generator (Heat pump)	5	Circulation group for heating/cooling system	8	FULL CONTROL electronic unit / thermostat	11	Buffer tank
3	Hydraulic safety group	6	Electric immersion heater	9	Thermostatic mixing valve		

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