

BOLLY® 1 HY XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS



APPLICATION

Production and storage of domestic hot water (DHW). Heating/cooling buffer tank for heat pumps.

MATERIAL

- **DHW STORAGE:** Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS).

- **ENERGY BUFFER hot-cold:** Mild steel.

HEAT EXCHANGER:

N° 1 mild steel Polywarm® coated heat exchanger.

INSULATION

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

- **HARD FOAM (CLASS "A" MODELS):** rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material.

Grey PVC external lining.

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 immersion heater

CATHODE PROTECTION (DHW STORAGE)

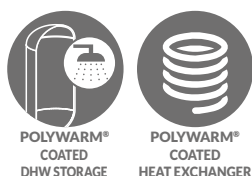
Magnesium anode.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® 1 HY XL WB

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
250	3104162330019	9-14	2,1	C
300	3104162330017	9-14	3,4	C
500	3104162330018	14-20	5,4	C



BOLLY® 1 HY XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
300	3104162330020	9-14	3,4	A
500	3104162330021	14-20	5,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
Heated volume by electric immersion heater [lt]			
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			
250	179	240	160
300	235	316	210
500	413	741	555

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]				
120	//	//	//	//
158	//	//	//	//
278	222	//	//	//

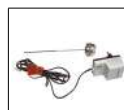
HEAT MANAGER + electric immersion heater 1,5 kW + probe +3m cable

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



Titanium anode

See Accessories section



Flange plate for electric immersion heater

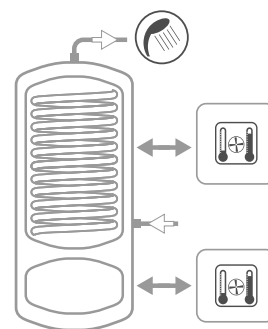
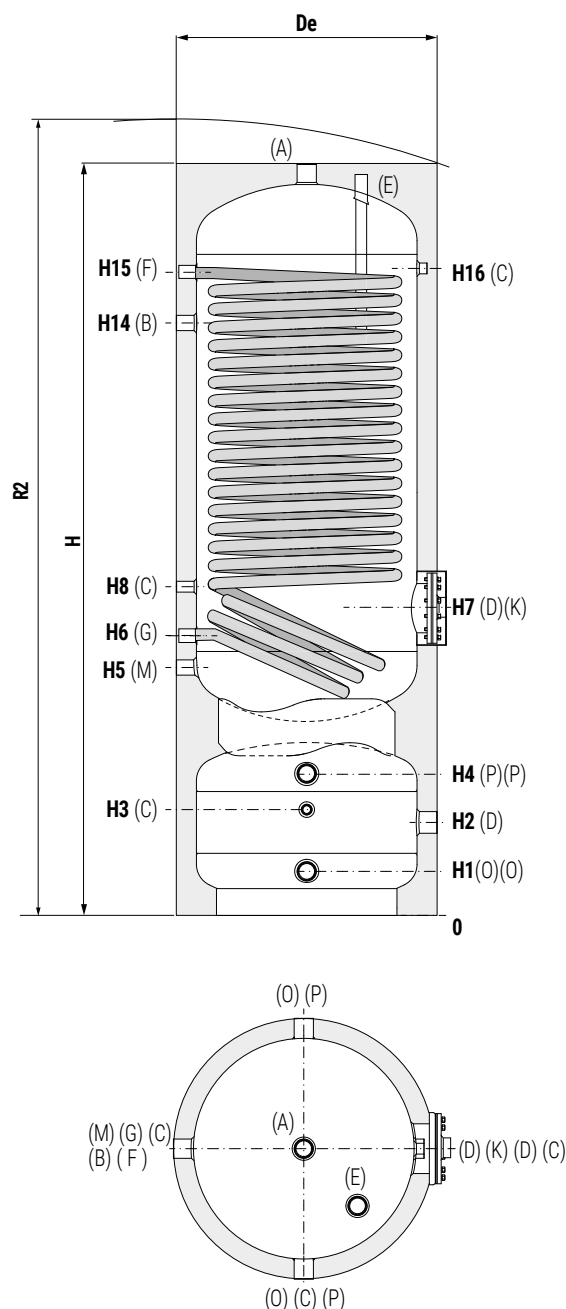
For connection sizes see Accessories section



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AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS

STORAGE		HEAT EXCHANGER		BUFFER TANK	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C	4 bar	-10/+95 °C



See TECHNICAL SUPPORT chapter
for example of installation

A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Primary circuit inlet
G	Primary circuit outlet
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Heating return/to generator
P	Heating delivery/from generator

Model	DHW storage volume	Buffer tank volume	De	H	R2	H1	H2	H3	H4	H5	H6
	[lt]										
							[mm]				
250	235	86	650	1635	1770	110	232	264	354	618	708
300	291	86	650	1875	1990	110	232	264	354	618	708
500	498	108	750	2225	2360	125	230	245	335	639	729

Model	H7	H8	H14	H15	H16	A-F-G	B-M	C	D	P-O
								Connections F		
250	768	818	1233	1363	1368	1"1/4	1"	1/2"	1"1/2	1"1/4
300	768	818	1478	1598	1598	1"1/4	1"	1/2"	1"1/2	1"1/4
500	794	849	1709	1869	1869	1"1/4	1"	1/2"	1"1/2	1"1/4

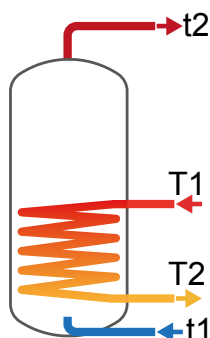
BOLLY® 1 HY XL

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



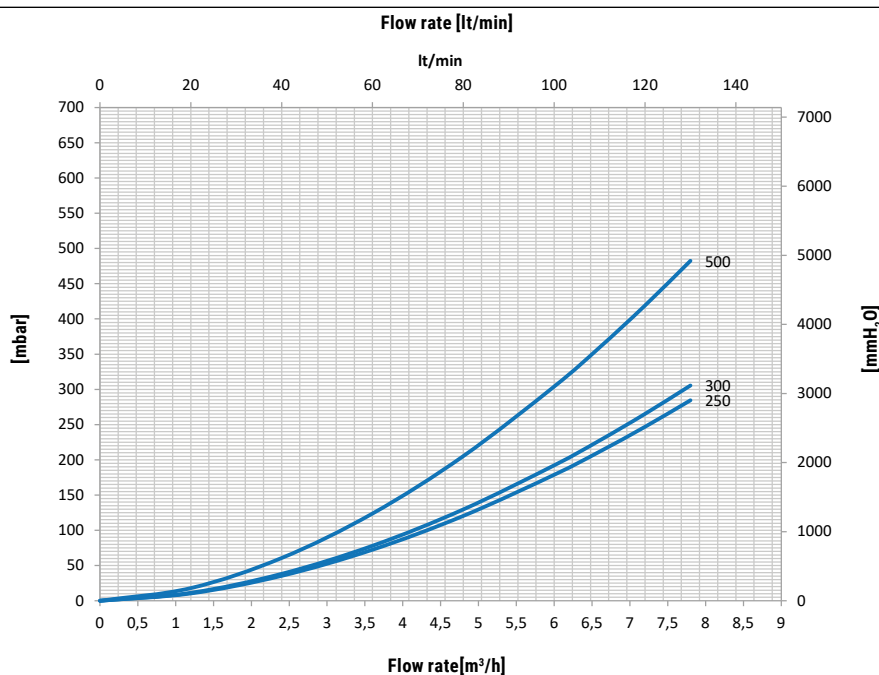
Model	Primary flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	44	46	32	22	30	45	52	66	751	1104	1281	1640
	1,5	55	57	41	27	27	39	44	56	664	951	1093	1377
250	3	47	49	34	23	22	33	39	50	554	821	956	1229
	1,5	55	58	41	27	20	29	34	43	501	725	837	1062
500	3,5	49	51	36	24	48	70	81	103	1198	1740	2009	2551
	1,75	62	65	47	31	43	60	68	85	1060	1487	1696	2114

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		
300	3	340	600	629	689	368	1299	1441	1728	830,2	81,4
	1,5	339	574	598	645	363	1176	1290	1517	243,2	23,8
250	3	360	471	494	539	711	991	1099	1317	525	53
	1,5	351	455	474	511	668	914	1004	1184	154	15
500	3,5	581	1001	1046	1137	625	2103	2319	2752	1263,9	123,9
	1,75	579	959	994	1064	617	1901	2068	2403	370,8	36,4

HEAT EXCHANGERS PRESSURE DROP

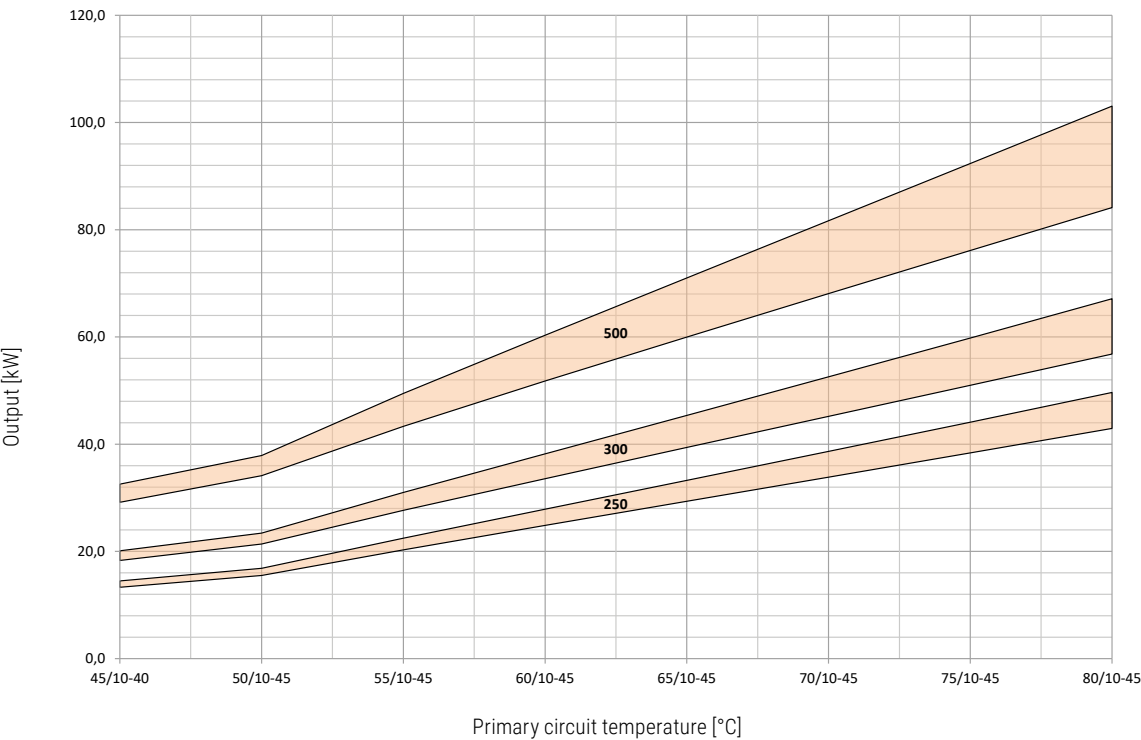
Heat exchangers surface [m²]

250	2,1
300	3,4
500	5,4



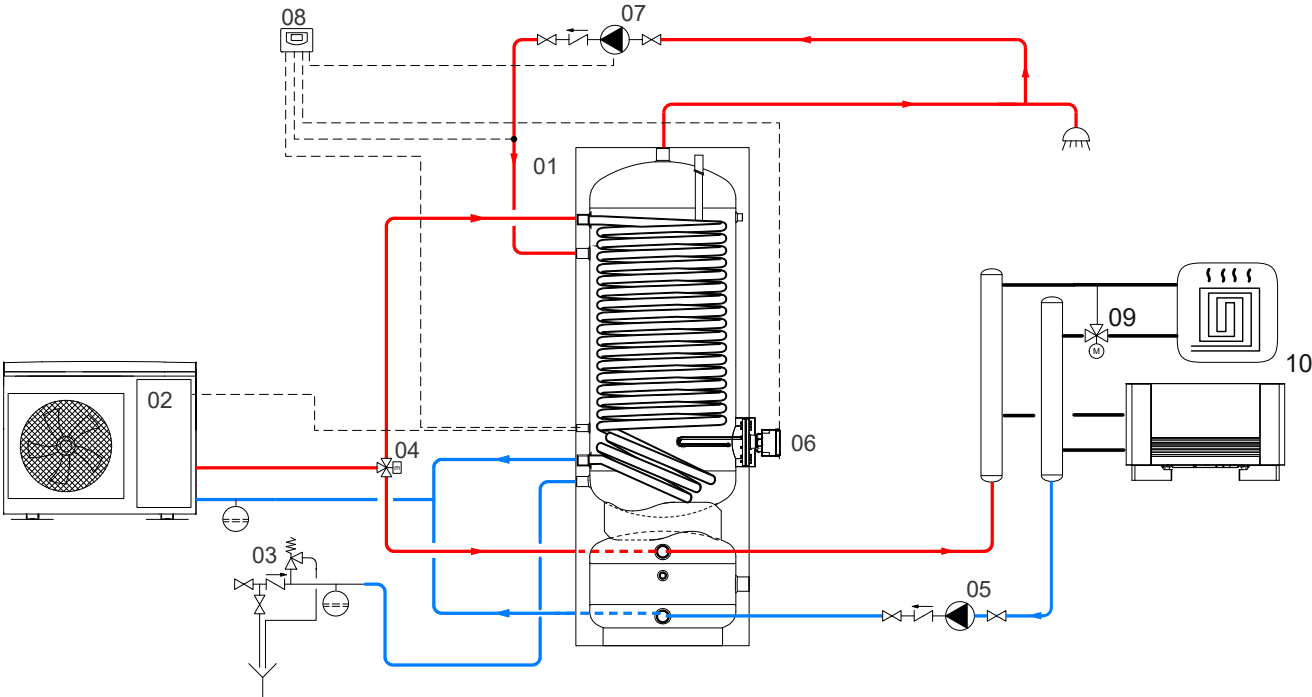


Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary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



Model	250		300		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN
	3	1,5	3	1,5	3,5	1,75

EXAMPLE OF INSTALLATION WITH BOLLY® 1 HY XL



01 Bolly® 1 HY XL	04 Motorized 3-way valve	07 D.H.W. recirculation group	10 Heating units
02 Generator (Heat pump)	05 Circulation group for heating/cooling system	08 Electronic Control/thermostat	
03 Hydraulic safety group	06 Electric immersion heater	09 Thermostatic mixing valve	

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