

BOLLY® 1 ST

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



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

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

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

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

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

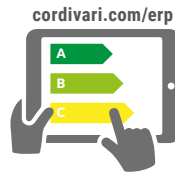
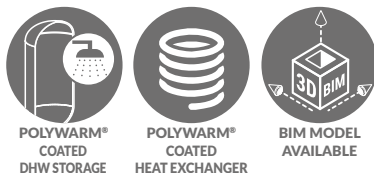
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 1 ST WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
150	3105162321101	0,6	B
200	3105162321102	0,8	B
300	3105162321103	1,2	B
400	3105162321104	1,5	C
500	3105162321105	1,8	C

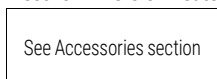
ACCESSORIES

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]		
150	39	70	52	35
200	67	120	90	60
300	106	190	143	95
400	159	285	213	142
500	174	312	234	156

THREEPHASE		
4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
//	//	//
45	//	//
71	57	//
107	85	//
117	93	78

Electric immersion heater flange plate



See Accessories section

Titanium electronic anode



See Accessories section



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



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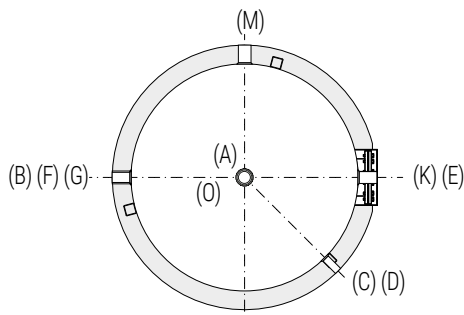
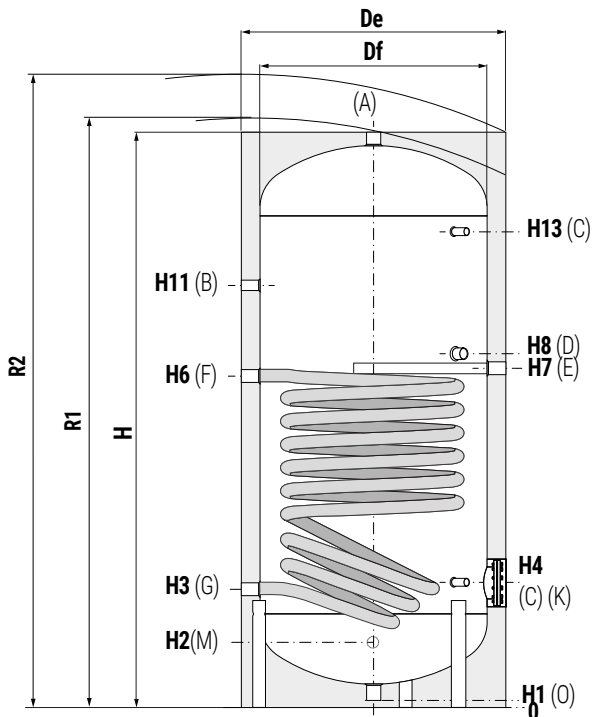
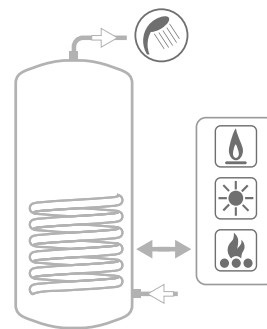
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STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Heat exchanger inlet 1"1/4 G F
G	Heat exchanger outlet 1"1/4 G F
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F

Model	Volume [lt]	Weight [kg]	De	H	R1	R2	[mm]				
							H1	H2	H3	H4	H6
150	148	49	500	1414	-	1505	71	210	275	315	888
200	189	55	550	1434	-	1540	71	220	285	325	811
300	291	67	650	1486	-	1630	71	246	311	381	832
400	422	88	700	1766	-	1905	71	261	326	396	988
500	498	120	750	1786	-	1945	71	271	346	411	1036

Model	[mm]						[inch]	
	H6	H7	H8	H11	H13	K	M	B
150	888	956	1011	1065	1185	Øi120/Øe180	3/4"	3/4"
200	811	855	915	1089	1195	Øi120/Øe180	3/4"	3/4"
300	832	871	931	1101	1221	Øi120/Øe180	1"	1"
400	988	1033	1091	1286	1486	Øi120/Øe180	1"	1"
500	1036	1076	1144	1331	1476	Øi120/Øe180	1"	1"

BOLLY® 1 ST / 1 ST FB

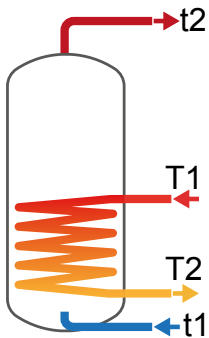
HEAT EXCHANGERS TECHNICAL DATA



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 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

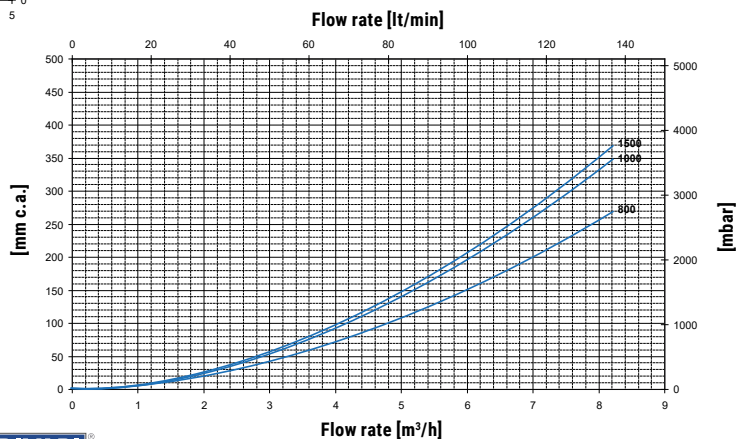
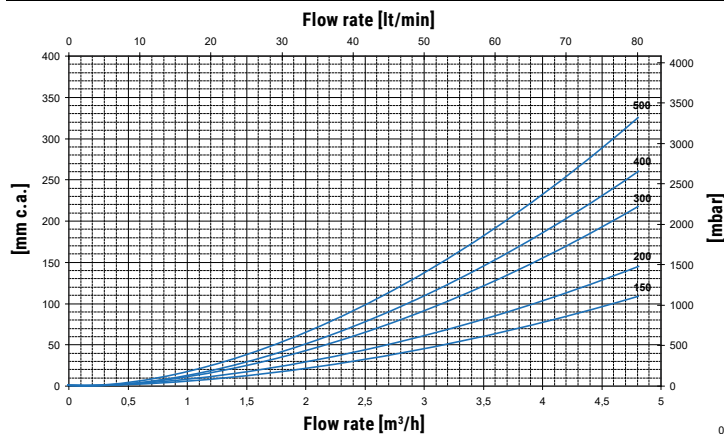
LOWER
HEAT EXCHANGER



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
150	2	99	102	71	46	6,6	10	11,7	15,2	162	246	288	371
	1	111	116	81	53	6,1	9,1	10,6	13,2	149	223	260	336
200	2,5	92	95	66	43	9	13,5	15,8	20,5	220	332	389	506
	1,25	103	107	75	49	8,3	12,3	14,4	18,5	203	303	354	456
300	3	97	101	70	45	13,5	20,2	23,6	30,6	331	498	583	756
	1,5	106	111	78	51	12,5	18,5	21,5	27,5	307	455	529	680
400	3,5	105	110	76	50	16,9	25,4	29,6	38,3	416	625	731	947
	1,75	117	122	86	57	15,4	23,2	26,9	34,5	387	571	664	853
500	3,5	111	116	81	53	20,2	30,1	35,1	45,3	496	742	867	1121
	1,75	126	131	93	61	18,7	27,3	31,7	40,6	459	674	782	1000
800	6	116	120	84	55	30,3	45,4	53	68,6	746	1120	1309	1695
	3	131	136	96	64	28,2	41,4	48,1	61,6	692	1021	1186	1521
1000	6	114	119	84	56	38,9	57,9	67,5	87	958	1429	1667	2151
	3	132	138	98	65	35,5	52,2	60,4	77	882	1288	1492	1903
1500	6	162	168	119	78	41	61	71	91,5	1009	1504	1753	2261
	3	189	197	139	92	37,7	54,9	63,4	80,7	927	1352	1564	1993

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				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	195	251	258	272	298	407	440	507	218,85	21,46
	1	193	247	253	266	287	388	418	479	60,62	5,95
200	2,5	253	325	335	354	392	536	581	675	441,12	43,26
	1,25	250	321	329	346	378	512	553	635	122,19	11,98
300	3	388	499	513	542	597	814	882	1021	927,45	90,95
	1,5	384	492	504	529	578	780	839	960	256,91	25,19
400	3,5	550	706	723	759	814	1101	1186	1359	1480,67	145,20
	1,75	546	697	712	744	791	1058	1133	1284	410,16	40,22
500	3,5	651	834	855	897	965	1304	1404	1607	1850,84	181,50
	1,75	645	822	840	877	935	1249	1336	1510	512,70	50,28
800	6	1026	1314	1345	1410	1499	2023	2174	2483	1538,50	150,87
	3	1017	1297	1325	1381	1455	1944	2076	2344	426,18	41,79
1000	6	1345	1720	1759	1840	1952	2625	2815	3202	1994,35	195,58
	3	1332	1696	1730	1799	1891	2512	2675	3004	552,45	54,18
1500	6	1870	2378	2419	2504	2509	3330	3530	3936	2108,31	206,75
	3	1856	2352	2388	2459	2443	3209	3378	3722	584,02	57,27

HEAT EXCHANGERS PRESSURE DROP

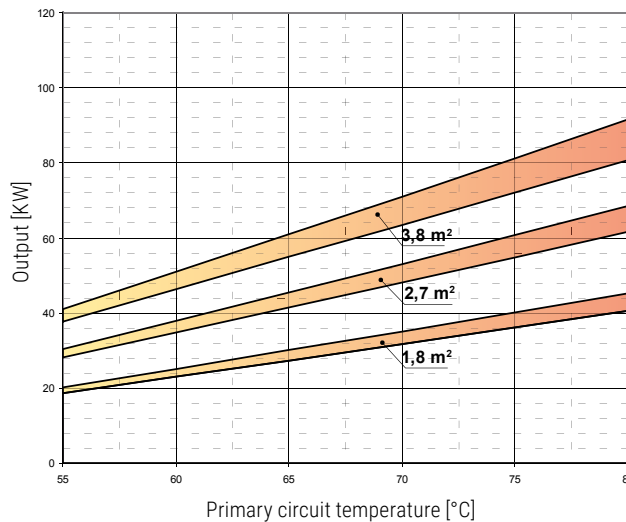
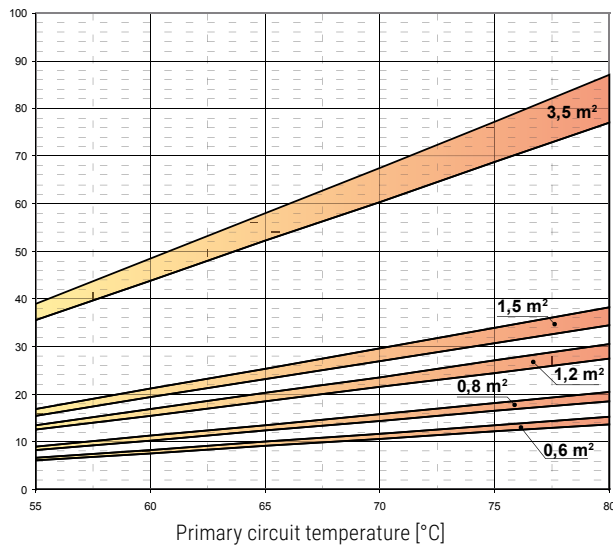


BOLLY® 1 ST / 1 ST FB

HEAT EXCHANGERS TECHNICAL DATA



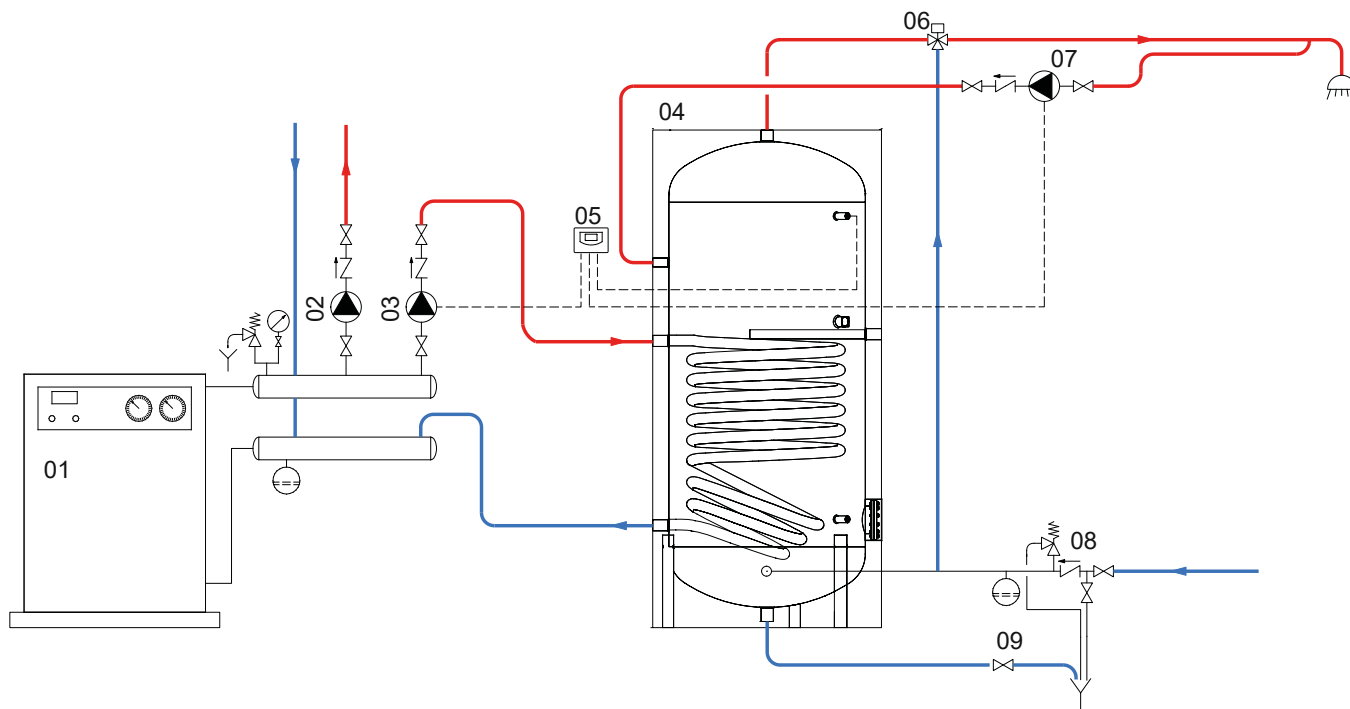
Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary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



Heat exchanger surface	0,6 m ²		0,8 m ²		1,2 m ²		1,5 m ²		3,5 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2	1	2,5	1,25	3	1,5	3,5	1,75	6	3

Heat exchanger surface	1,8 m ²		2,7 m ²		3,8 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3,50	1,75	6	3	6	3

EXAMPLE OF INSTALLATION WITH BOLLY® 1 ST / 1 ST FB



01	Generator	04	BOLLY® 1 ST / 1 ST FB	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

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