BOLLY® 2 AP - HIGH PERFORMANCES

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

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 - SSICA - EN 16421 - WRAS)
HEAT EXCHANGER
N° 2 Mild steel Polywarm® coated heat exchangers
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.

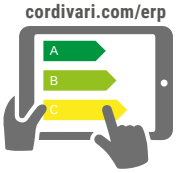
CATHODE PROTECTION
Magnesium anode.
DRAIN
External confluence through drain connection.
GASKET- FLANGE PLATE
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.
WARRANTY
5 years (See general sales conditions and warranty)
ACCESSORIES AND SPARE PARTS
See Accessories section for the entire list.

STOCK AVAILABILITY

BOLLY® 2 AP WB

Model	HARD FOAM INSULATION	HEAT EXCHANGER SURFACE Upper	Lower	ENERGY EFFICIENCY CLASS
	Art. Nr.	[m²]		
200	3134162320006	0,4	1,4	**B**
300	3134162320007	0,9	1,4	**B**
500	3134162320008	1,3	2,2	**C**

cordivari.com/erp



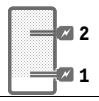
On line ErP label tool

BOLLY® 2 AP WB CLASS A

Model	HARD FOAM INSULATION	HEAT EXCHANGER SURFACE Upper	Lower	ENERGY EFFICIENCY CLASS
	Art. Nr.	[m²]		
200	3134162330024	0,4	1,4	**A**
300	3134162330025	0,9	1,4	**A**
500	3134162330026	1,3	2,2	**A**

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod.	Position of the electric heater	Heated volume by electric immersion heater [lt]	MONOPHASE 1,5 kW	2 kW	3 kW	THREEPHASE 4 kW	5 kW	6 kW
			5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049
			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	**1**	159	285	214	142	//	//	//
	2	58	104	78	52	39	//	//
300	**1**	235	421	316	210	158	//	//
	2	112	201	151	100	75	60	//
500	**1**	413	741	555	370	278	222	//
	2	185	331	248	165	124	99	83

Thermometer

Art. Nr.
5032240000107
5 units box

Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500

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

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

See Accessories section

BOLLY® **2 AP - HIGH PERFORMANCES**

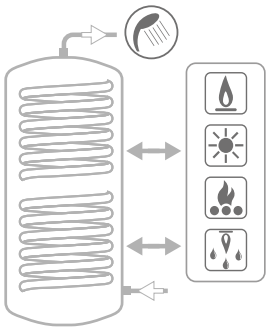
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

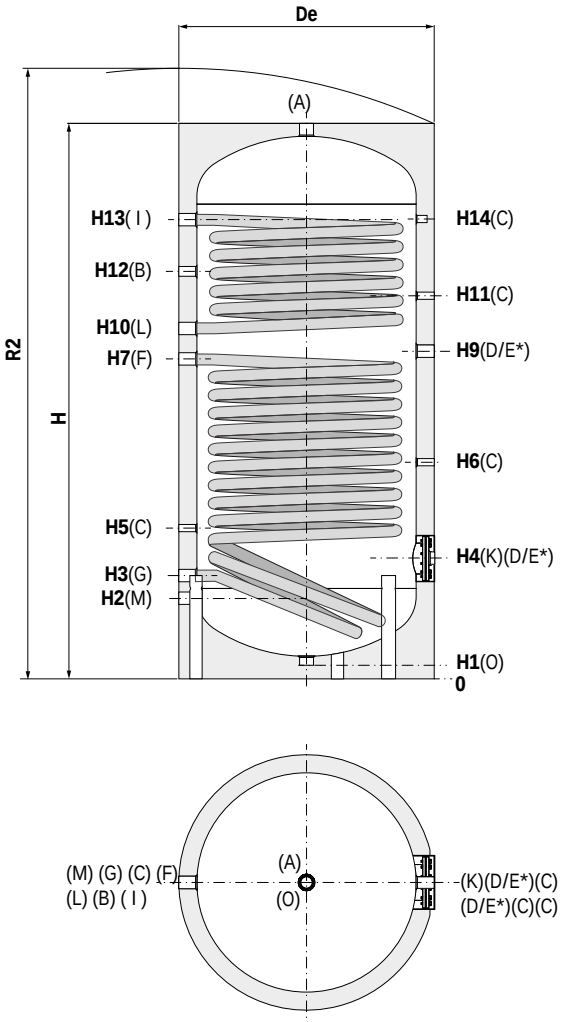
STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C

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.

TESTED ErP





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 Use a reduction 1"1/2 –> 1"1/4
F	Lower heat exchanger inlet 1"1/4 G F
G	Lower heat exchanger outlet 1"1/4 G F
I	Upper heat exchanger inlet 1"1/4 G F
K	Flange for inspection
L	Upper heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesgin directive 2009/125/CE

BOLLY® 2 AP WB +AP WB CLASS A (HARD FOAM INSULATION)

Model	Volume	Weight	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9
	[lt]	[Kg]	[mm]											
200	189	65	550	1434	1540	71	215	285	325	405	535	925	//	970
300	291	83	650	1486	1630	71	241	311	381	431	561	832	//	906
500	498	134	750	1786	1950	71	266	346	411	466	586	1036	//	1111

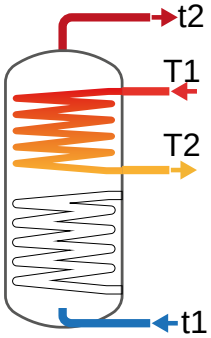
Model	H10	H11	H12	H13	H14	K	O	M	D	B	A
	[mm]						Connections F				
200	1015	1080	1115	1205	1195	Øi120/Øe180	1"1/4	3/4"	1"1/2	3/4"	1"1/4
300	981	1021	1101	1221	1221	Øi120/Øe180	1"1/4	1"	1"1/2	1"	1"1/4
500	1186	1246	1331	1476	1476	Øi120/Øe180	1"1/4	1"	1"1/2	1"	1"1/4

BOLLY® **2 AP**

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.

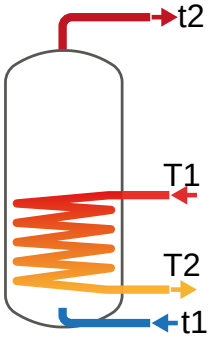
UPPER HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum exchangeable power in KW with primary at T1, secondary from 10°C to t2 and continuous withdrawal of the DHW produced					Continuous DHW production in l/h between 10°C and t2 and primary at temperature 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	54	56	39	25	4	7	8	10	8	107	162	190	247	145
	1	61	63	44	29	4	6	7	9	8	97	146	170	221	131
300	3	41	43	30	20	10	15	18	23	17	243	368	432	562	290
	1,5	47	48	34	22	9	14	16	20	15	223	333	389	503	267
500	3,5	49	51	35	23	14	23	26	32	24	353	532	623	809	419
	1,75	55	57	40	26	13	20	23	29	22	326	482	562	724	385

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				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	234	297	302	311	302	400	422	468	150	15
	1	232	294	298	307	294	387	406	447	50	5
300	3	373	477	488	509	527	710	761	865	830	81
	1,5	370	471	481	500	511	682	727	818	243	24
500	3,5	628	800	815	846	852	1137	1210	1359	1264	124
	1,75	623	792	805	832	830	1097	1161	1291	371	36

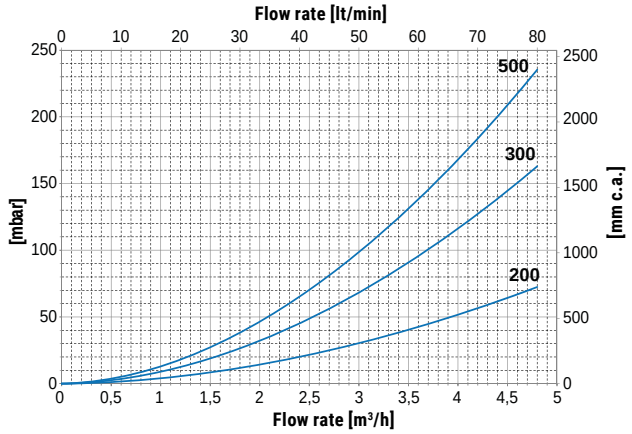
LOWER HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum exchangeable power in KW with primary at T1, secondary from 10°C to t2 and continuous withdrawal of the DHW produced					Continuous DHW production in l/h between 10°C and t2 and primary at temperature 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	3	54	56	40	26	16	23	27	36	29	384	576	673	871	500
	1,5	62	65	46	31	15	21	25	32	26	354	522	607	778	455
300	3	82	85	60	39	16	23	27	36	29	384	576	673	871	500
	1,5	94	98	69	45	15	21	25	32	26	354	522	607	778	455
500	3,5	100	104	73	48	22	33	39	50	41	549	820	956	1234	711
	1,75	115	120	85	56	21	30	35	44	37	506	741	858	1095	643

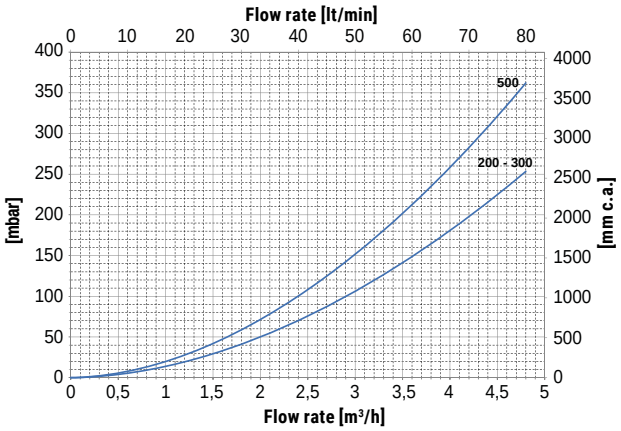
Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
	[m³/h]	T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	3	280	366	382	415	523	731	808	967	830	81
	1,5	275	357	371	400	499	688	756	892	243	24
300	3	397	512	528	561	640	877	954	1113	830	81
	1,5	392	503	517	545	616	833	901	1038	243	24
500	3,5	661	848	871	917	1008	1367	1476	1699	1264	124
	1,75	653	835	854	894	974	1304	1398	1587	371	36

HEAT EXCHANGERS PRESSURE DROP



UPPER

Heat exchangers surface [m²]	
200	0,4
300	0,9
500	1,3



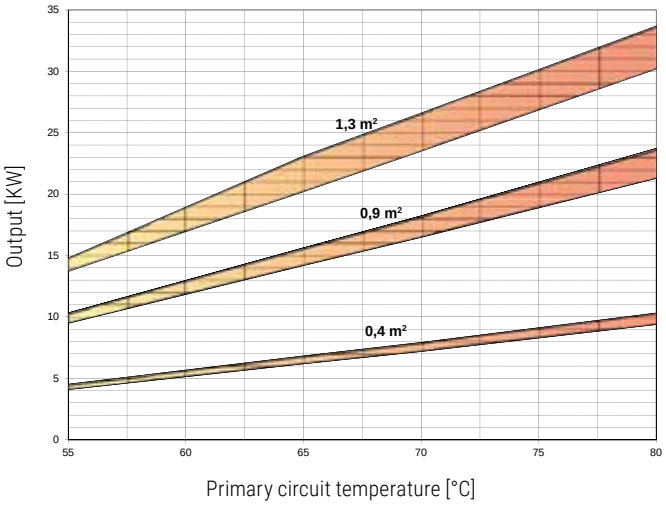
LOWER

Heat exchangers surface [m²]	
200	1,4
300	1,4
500	2,2

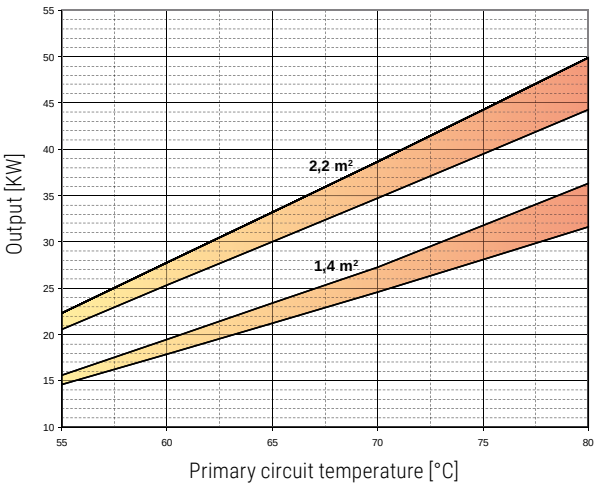
BOLLY® **2 AP**

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)

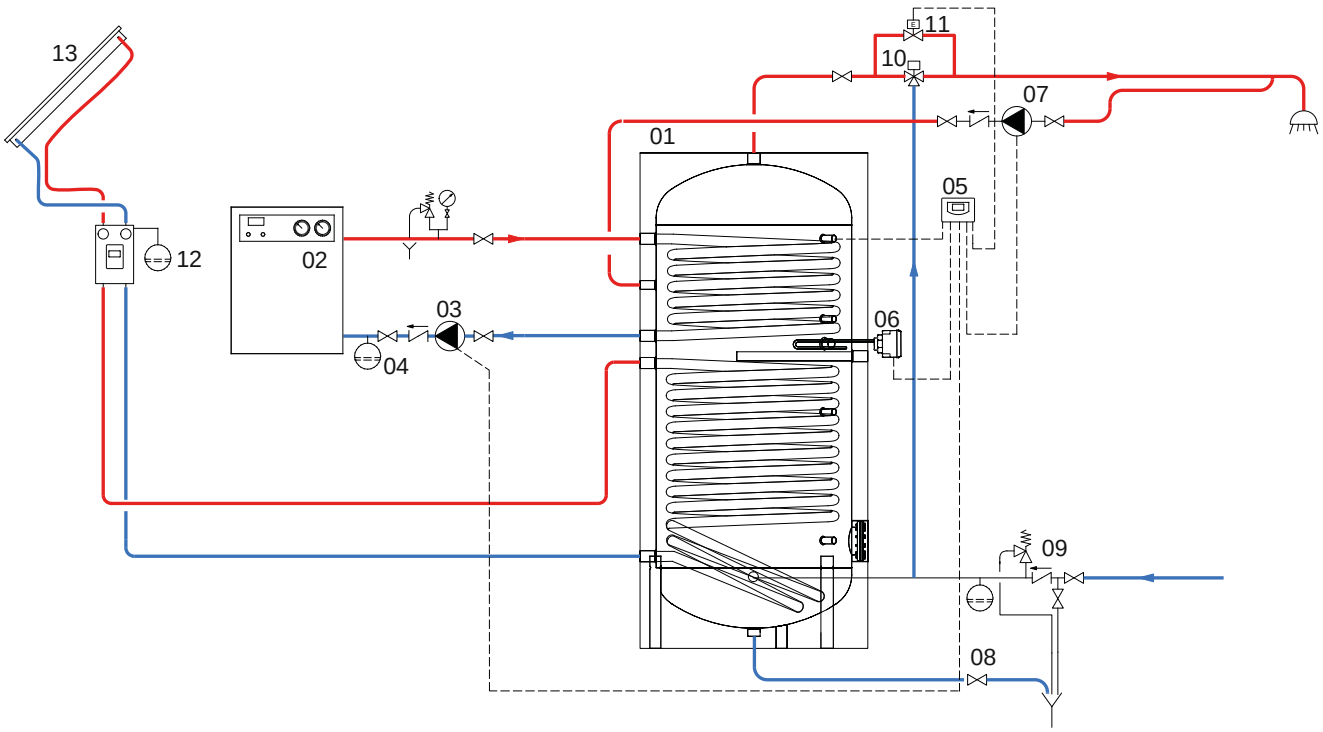


Heat exchanger surface	0,4 m²		0,9 m²		1,3 m²	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN
	2	1	3	1,5	3,5	1,75



Heat exchanger surface	1,4 m²		2,2 m²	
Flow rate [m³/h]	MAX	MIN	MAX	MIN
	3	1,5	3,5	1,75

EXAMPLE OF INSTALLATION WITH **BOLLY® 2 AP**



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

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