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
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.
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.

POLYWARM® COATED DHW STORAGE

POLYWARM® COATED HEAT EXCHANGER

cordivari.com/erp

On line ErP label tool

BOLLY® 1 HY XL WB

Model	HARD FOAM INSULATION Art. Nr.	Price €	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
250	3104162330019	**1.990,00**	9-14	2,1	**C**
300	3104162330017	**2.117,00**	9-14	3,4	**C**
500	3104162330018	**3.012,00**	14-20	5,4	**C**

BOLLY® 1 HY XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Price €	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
300	3104162330020	**2.631,00**	9-14	3,4	**A**
500	3104162330021	**3.650,00**	14-20	5,4	**A**

ACCESSORIES

ELECTRIC IMMERSION HEATERS

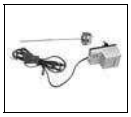
Mod.	Heated volume by electric immersion heater [lt]	MONOPHASE 1,5 kW	MONOPHASE 2 kW	MONOPHASE 3 kW	THREEPHASE 4 kW	THREEPHASE 5 kW
		5240000000051	5240000000052	5240000000053	5240000000047	5240000000048
		€ 314,00	**€ 316,00**	**€ 319,00**	**€ 442,00**	**€ 446,00**
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]	
250	179	320	240	160	120	//
300	235	421	316	210	158	//
500	413	741	555	370	278	222

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

Art. Nr.	ELECTRICAL RESISTANCE	€
5240000000074	1,5 kW	**449,00**
5240000000075	2 kW	**451,00**
5240000000076	3 kW	**455,00**

Titanium electronic anode

For art. nr. and prices please see Accessories section



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® **1 HY XL**

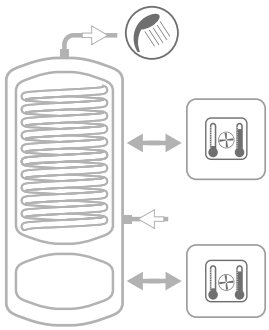
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS

STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	12 bar	110 °C	4 bar	-10/+95 °C

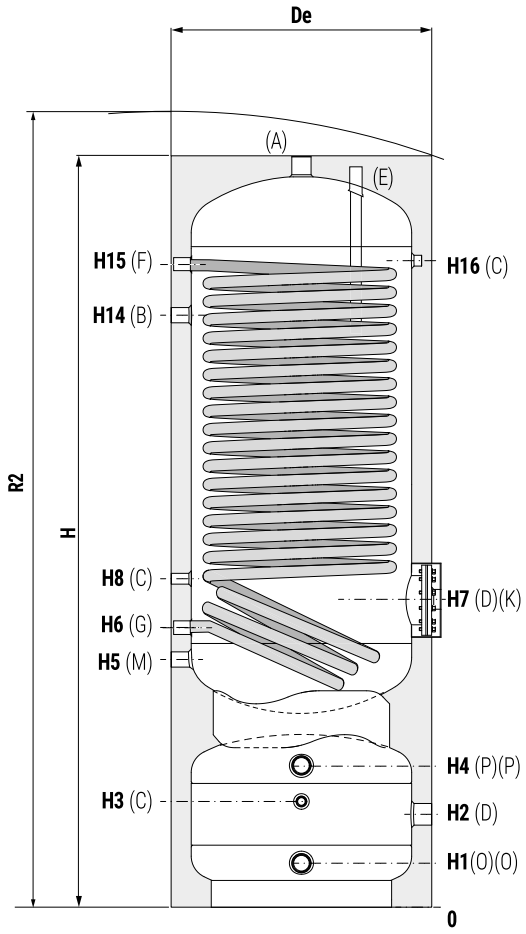
CORDIVARI Lab

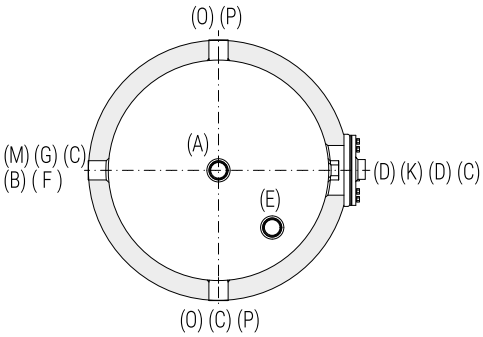
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

TESTED ErP



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

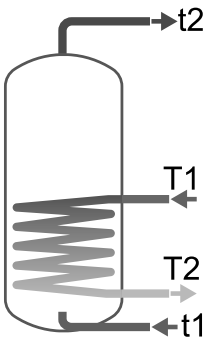
Model	H7	H8	H14	H15	H16	A-F-G	B-M	C	D	P-O
	[mm]					Connections F				
250	768	818	1233	1363	1368	1"1/4	1"	1/2"	1"1/2	1"1/4
300	768	818	1478	1598	1598	1"1/4	1"	1/2"	1"1/2	1"1/4
500	794	849	1709	1869	1869	1"1/4	1"	1/2"	1"1/2	1"1/4

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

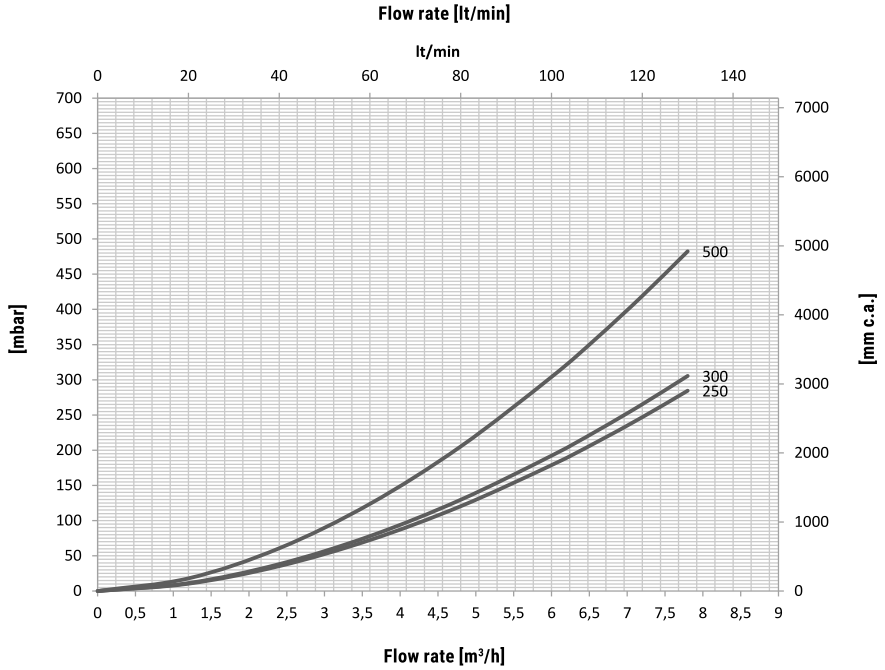
Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	[m³/h]	T1/t2				T1				T1			
		55/50	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	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		
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

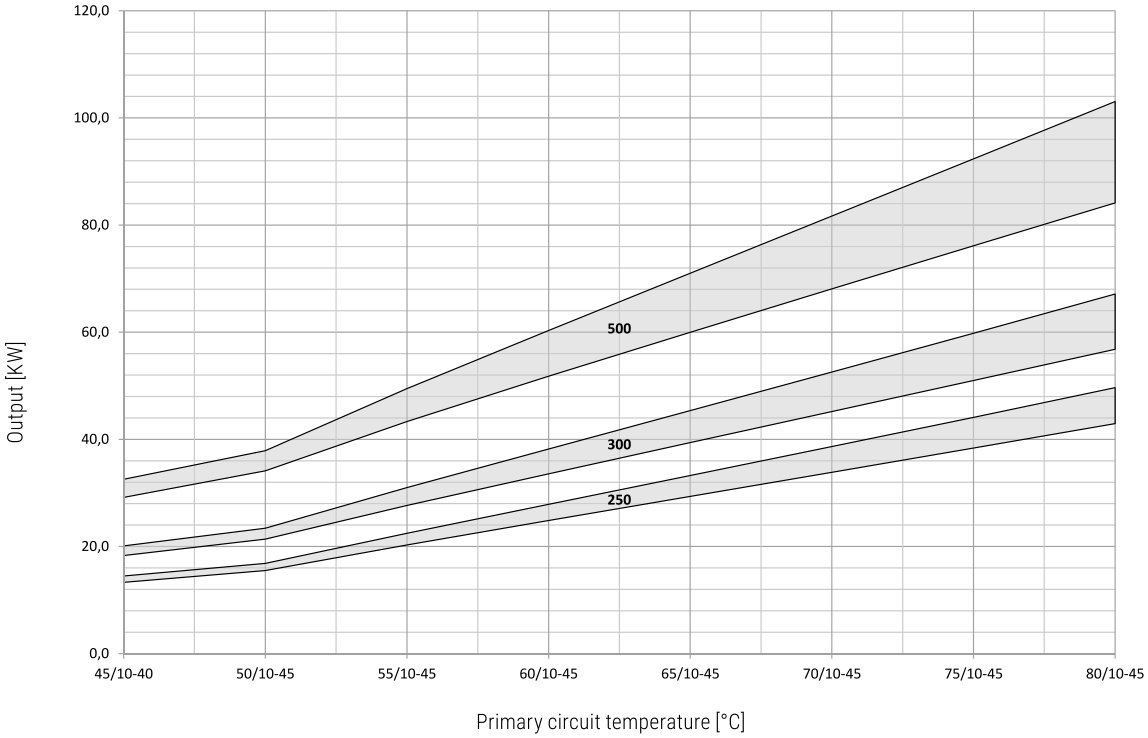
Heat exchangers surface [m²]	
250	2,1
300	3,4
500	5,4



BOLLY® **1 HY XL**

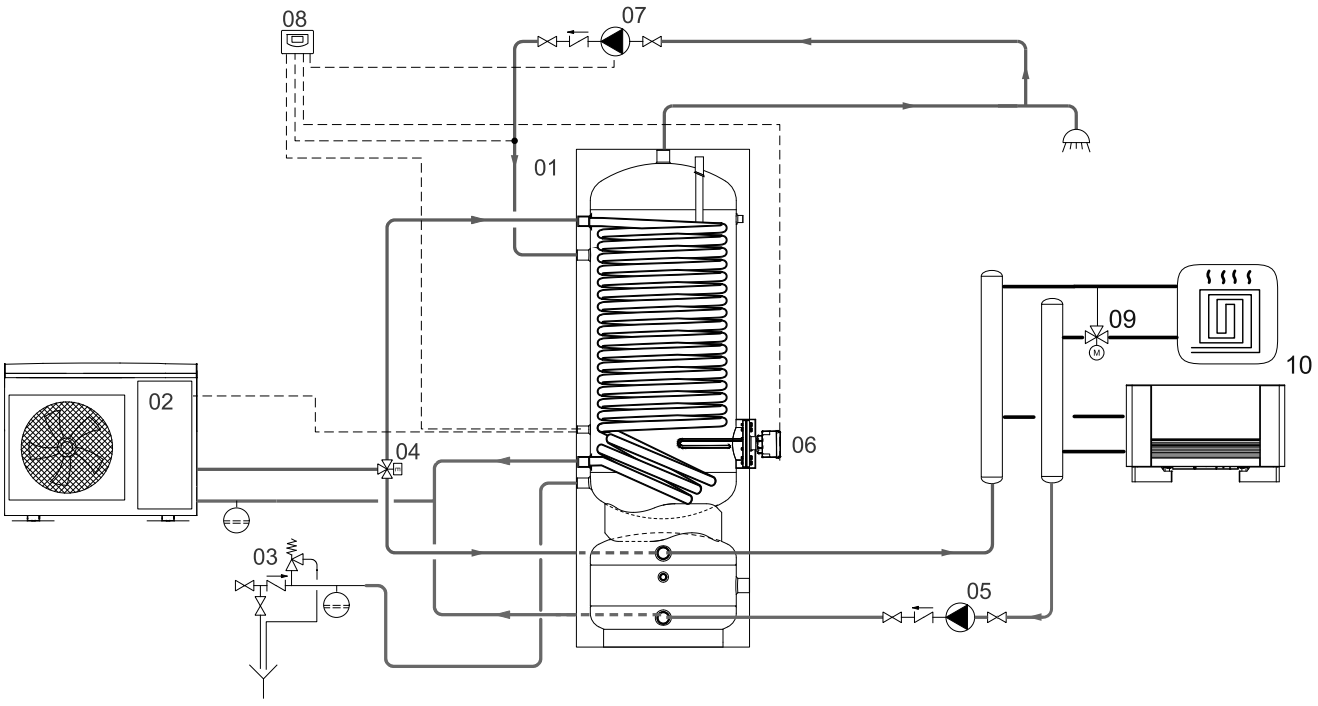
HEAT EXCHANGERS TECHNICAL DATA

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)



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 three-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 (optional)	09	Thermostatic mixing valve		

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

BOLLY® **2 HY XL**

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS 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° 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 (DHW STORAGE)
Magnesium anode.
WARRANTY
5 years (See general sales conditions and warranty)
ACCESSORIES AND SPARE PARTS
See Accessories section for the entire list.

NEW

POLYWARM® COATED DHW STORAGE

POLYWARM® COATED HEAT EXCHANGER

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On line ErP label tool

BOLLY® 2 HY XL WB

Model	HARD FOAM INSULATION		Power of combinable heat pump	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
				Upper	Lower	ErP
	Art. Nr.	Price €	[kWt]	[m²]		
300	3134162320004	**2.215,00**	9-14	1,9	0,9	**C**
500	3134162320005	**3.060,00**	14-20	3,1	1,4	**C**

BOLLY® 2 HY XL WB CLASS A

Model	HARD FOAM INSULATION		Power of combinable heat pump	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
				Upper	Lower	ErP
	Art. Nr.	Price €	[kWt]	[m²]		
300	3134162320012	**2.729,00**	9-14	1,9	0,9	**A**
500	3134162320013	**3.698,00**	14-20	3,1	1,4	**A**

ACCESSORIES

ELECTRIC IMMERSION HEATERS

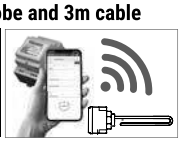
Mod.	Heated volume by electric immersion heater [lt]	MONOPHASE			THREEPHASE	
		1,5 kW	**2** kW	**3** kW	**4** kW	**5** kW
		5240000000051	5240000000052	5240000000053	5240000000047	5240000000048
		€ 314,00	**€ 316,00**	**€ 319,00**	**€ 442,00**	**€ 446,00**
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]	
300	235	421	316	210	158	//
500	413	741	555	370	278	222

Thermometer

Art. Nr.	€
5032240000107	**107,00**
5 units box	

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

Art. Nr.	ELECTRICAL RESISTANCE	€
5240000000074	1,5 kW	**449,00**
5240000000075	2 kW	**451,00**
5240000000076	3 kW	**455,00**



Titanium electronic anode

For art. nr. and prices please see Accessories section

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 HY XL**

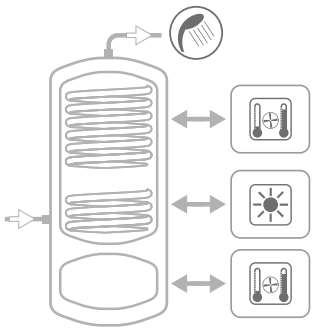
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS

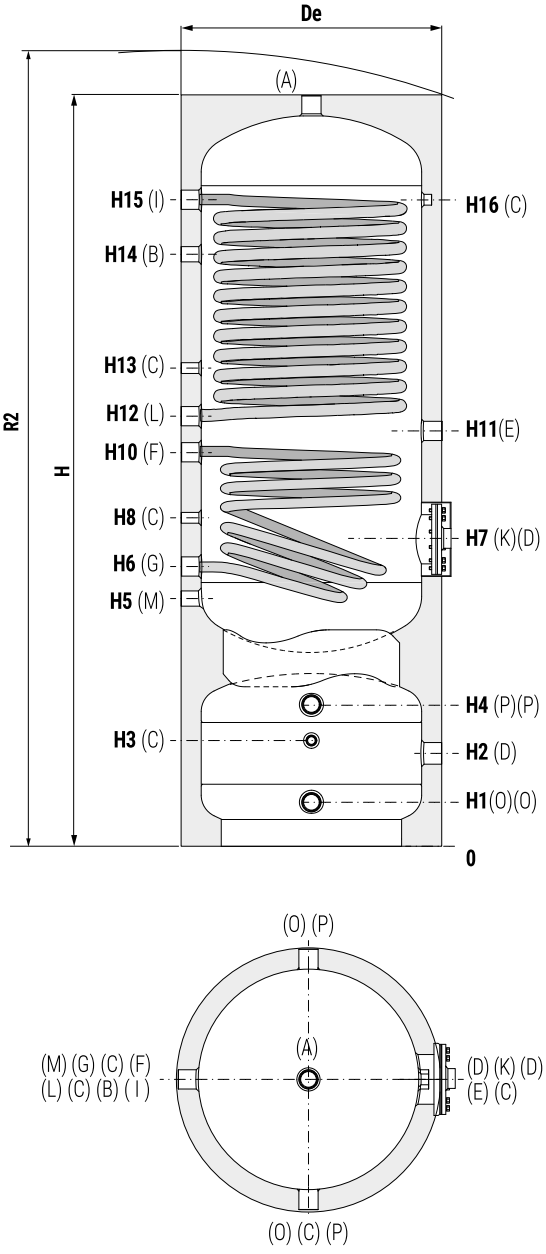
STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C	4 bar	-10/+95 °C

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 / 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	Lower heat exchanger inlet
G	Lower heat exchanger outlet
I	Upper heat exchanger inlet
L	Upper heat exchanger 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	Weight	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8
	[lt]		[kg]	[mm]										
300	291	86	116	650	1875	1990	110	232	264	354	618	698	768	818
500	498	108	194	750	2225	2360	125	230	245	335	639	729	794	849

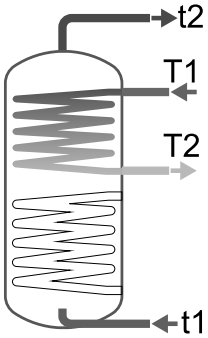
Model	H10	H11	H12	H13	H14	H15	H16	K	A-F-G-L-I	B-M	C	D	P-O
	[mm]								Connections F				
300	983	993	1073	1193	1477	1613	1613	Øi120/Øe180	1"	1"	1"1/2	1"1/2	1"1/4
500	1054	106	1144	1264	1474	1859	1859	Øi120/Øe180	1"	1"	1"1/2	1"1/2	1"1/4

BOLLY® **2 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 60°C, input 10°C and output 45°C;
4) Sanitary water according to UNI CTI 8065.

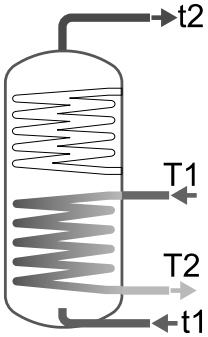
UPPER
HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum 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			
	[m³/h]	T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	43	45	31	20	20	30	35	46	501	747	871	1123
	1,5	50	52	37	24	18	27	31	39	454	661	765	975
500	3,5	46	48	34	22	33	49	56	72	812	1198	1392	1786
	1,75	47	49	35	23	30	42	49	62	732	1050	1208	1525

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		
300	3	226	400	421	463	245	873	972	1174	88,4	8,7
	1,5	225	386	403	438	242	805	888	1056	24,5	2,4
500	3,5	329	601	633	699	360	1360	1515	1830	70,2	6,9
	1,75	328	576	603	656	355	1242	1368	1621	20,9	2,0

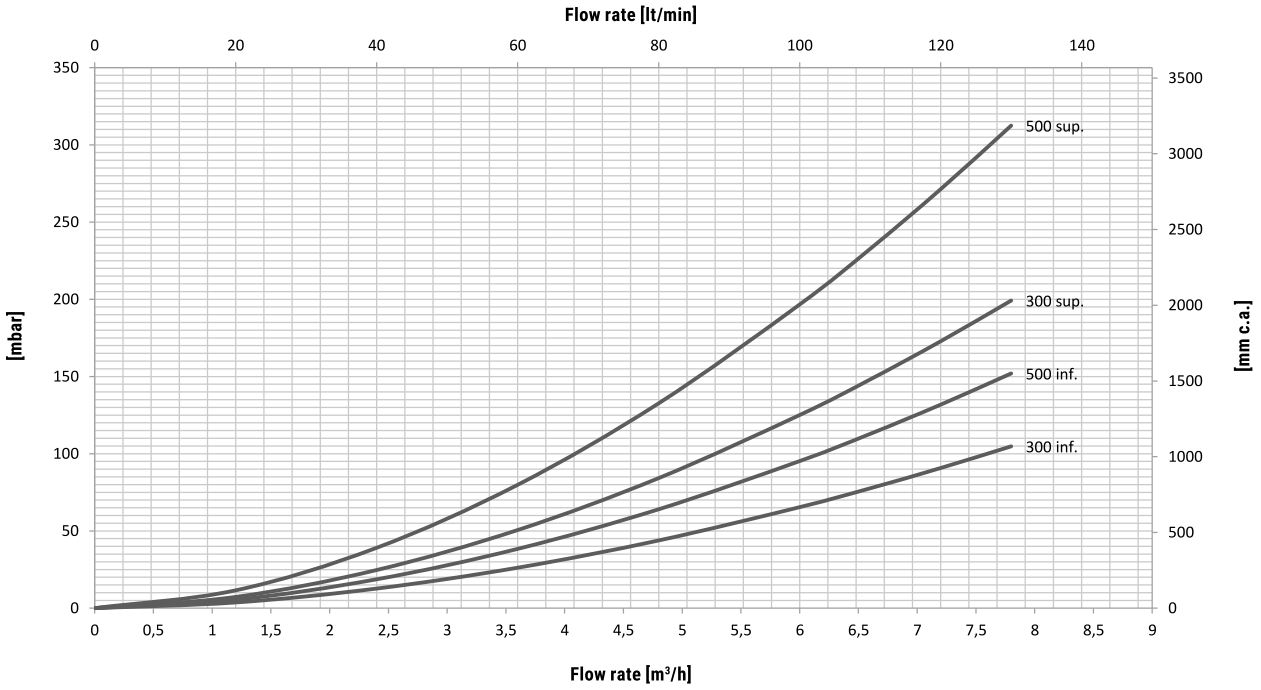
LOWER
HEAT EXCHANGER



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 within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	[m³/h]	T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	127	132	92	60	9,9	15,0	17,5	22,8	243	368	431	561
	1,5	150	157	107	69	9,1	13,6	15,8	20,4	220	330	385	499
500	3,5	141	146	102	67	15,5	23,2	27,1	35,1	380	572	669	868
	1,75	139	145	101	66	14,2	21,0	24,4	31,3	346	514	598	771

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		
300	3	335	477	488	509	345	710	761	865	61,5	6,0
	1,5	335	471	480	499	343	679	724	815	16,5	1,6
500	3,5	486	698	714	748	501	1060	1138	1297	100,1	9,8
	1,75	486	688	703	731	499	1014	1082	1219	27,4	2,7

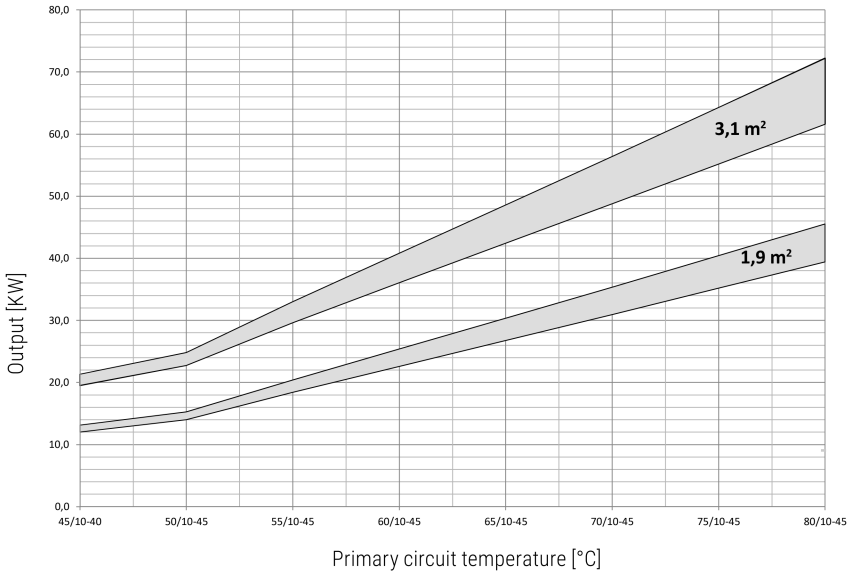
HEAT EXCHANGERS PRESSURE DROP



BOLLY® **2 HY XL**

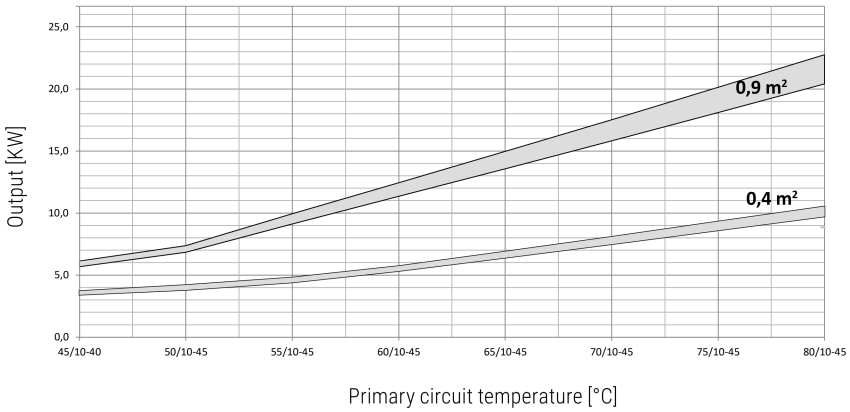
HEAT EXCHANGERS TECHNICAL DATA

BOLLY® 2 HY XL heat exchanger output depending on the temperature and flow rate of the primary circuit and with secondary 10/45 ° C at the maximum withdrawal of DHW. The upper curve that delimits the operating area of each exchanger corresponds to the "MAX" flow rate of the primary indicated in the table; the lower curve corresponds to the "MIN" flow rate.

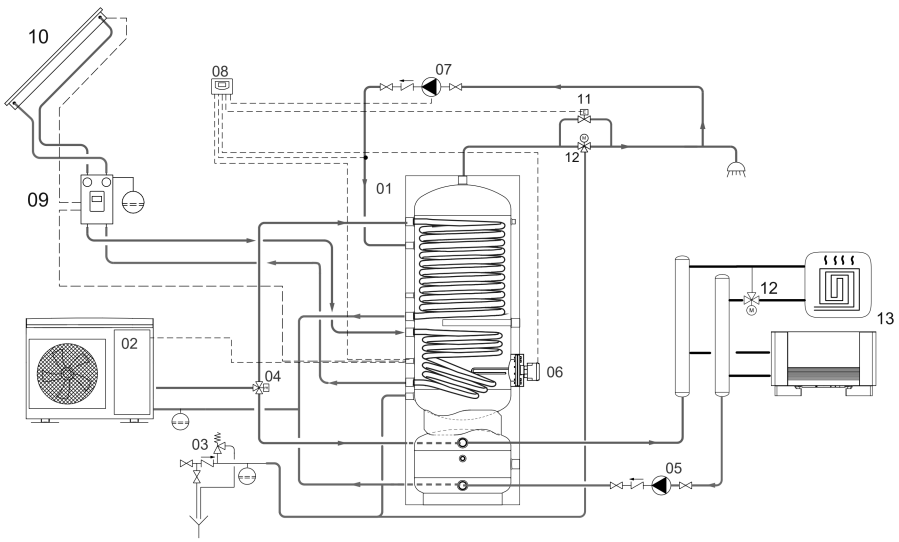


Upper heat exchangers	**1,9 m²**		**3,1 m²**	
Flow rate [m³/h]	MAX	MIN	MAX	MIN
	3	1,5	3,5	1,75

Lower heat exchangers	**0,4 m²**		**0,9 m²**	
Flow rate [m³/h]	MAX	MIN	MAX	MIN
	2,5	1,25	3	1,5



EXAMPLE OF INSTALLATION WITH **BOLLY® 2 HY XL**



01	BOLLY® 2 HY XL	05	Circulation group for heating/cooling system	09	Solar system circulation group	13	Heating units
02	Generator (Heat pump)	06	Electric immersion heater (optional)	10	Solar panels		
03	Hydraulic safety group	07	D.H.W. recirculation group	11	By-pass solenoid valve		
04	Motorized three-way valve	08	Electronic control /thermostat	12	Thermostatic mixing valve		

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

BOLLY® **2 HY AP**

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS 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° 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 (DHW STORAGE)
Magnesium anode.
WARRANTY
5 years (See general sales conditions and warranty)
ACCESSORIES AND SPARE PARTS
See Accessories section for the entire list.

NEW

POLYWARM® COATED DHW STORAGE

POLYWARM® COATED HEAT EXCHANGER

cordivari.com/erp

On line ErP label tool

BOLLY® 2 HY AP WB

Model	HARD FOAM INSULATION		Power of combinable heat pump	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
				Upper	Lower	ErP
	Art. Nr.	Price €	[kWt]	[m²]		
300	3134162320010	**1.849,00**	7-12	0,9	1,4	**C**
500	3134162320011	**2.640,00**	12-16	1,3	2,2	**C**

BOLLY® 2 HY AP WB CLASS A

Model	HARD FOAM INSULATION		Power of combinable heat pump	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
				Upper	Lower	ErP
	Art. Nr.	Price €	[kWt]	[m²]		
300	3134162320014	**2.363,00**	7-12	0,9	1,4	**A**
500	3134162320015	**3.278,00**	12-16	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	MONOPHASE 2 kW	MONOPHASE 3 kW	THREEPHASE 4 kW	THREEPHASE 5 kW	THREEPHASE 6 kW
			5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049
			€ 314,00	**€ 316,00**	**€ 319,00**	**€ 442,00**	**€ 446,00**	**€ 451,00**
			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]		
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	**107,00**
5 units box	

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

Art. Nr.	ELECTRICAL RESISTANCE	€
5240000000074	1,5 kW	**449,00**
5240000000075	2 kW	**451,00**
5240000000076	3 kW	**455,00**

Titanium electronic anode

For art. nr. and prices please see Accessories section

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 HY AP**

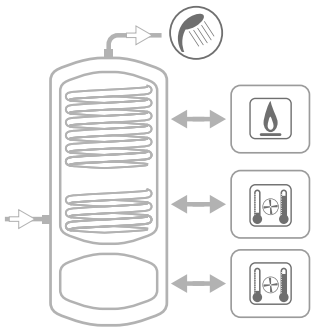
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS AND ENERGY BUFFER FOR HEAT PUMPS

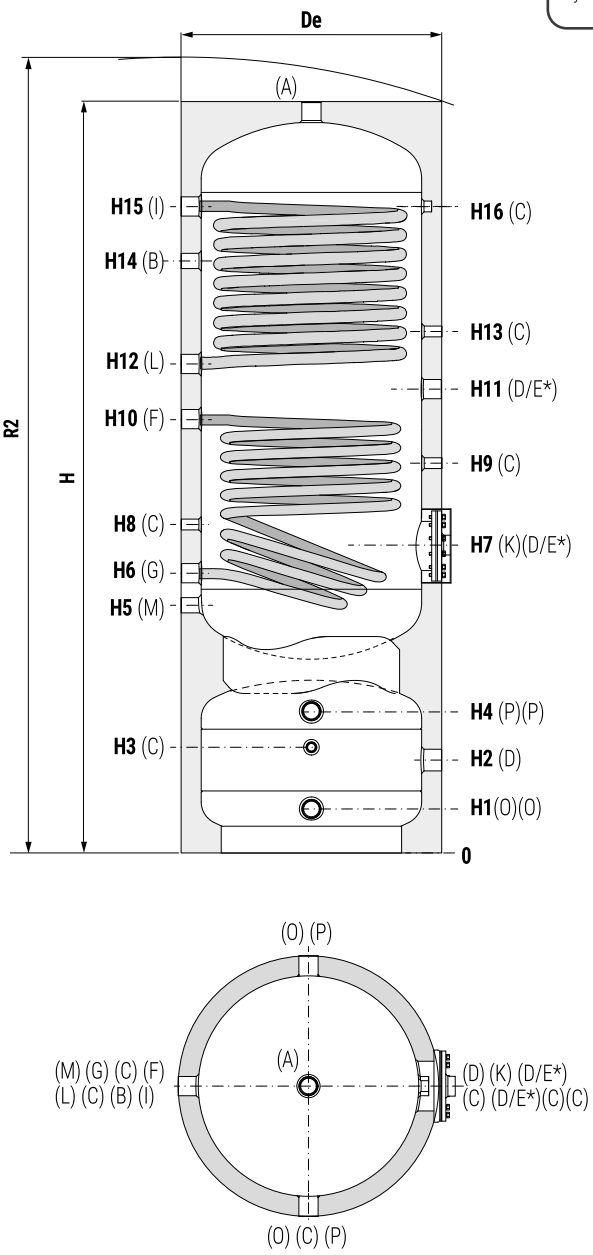
STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C	4 bar	-10/+95 °C

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 / Domestic hot water outlet
C	Connection for instrumentation
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
G	Lower heat exchanger outlet
I	Upper heat exchanger inlet
L	Upper heat exchanger outlet
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Heating return/to generator
P	Heating delivery/from generator

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

Model	DHW storage volume	Buffer tank volume	Weight	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8
	[lt]		[kg]	[mm]										
300	291	81	103	650	1875	1990	110	232	264	354	628	698	738	818
500	498	108	168	750	2225	2360	125	230	245	335	649	729	794	849

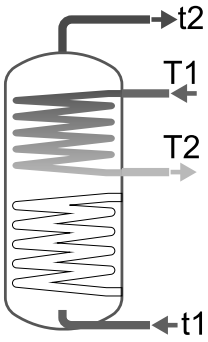
Model	H9	H10	H11	H12	H13	H14	H15	H16	K	A-F-G-L-I	B-M	C	D	P-O
	[mm]									Connections F				
300	948	1219	1318	1368	1463	1488	1608	1608	Øi120/Øe180	1"1/4	1"	1/2"	1"1/2	1"1/4
500	969	1419	1527	1569	1679	1714	1859	1859	Øi120/Øe180	1"1/4	1"	1/2"	1"1/2	1"1/4

BOLLY® **2 HY 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.

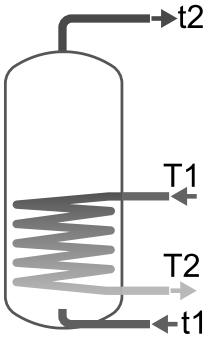
UPPER
HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum 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			
	[m³/h]	T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	41	43	30	20	9,9	15	17,5	22,8	243	368	432	562
	1,5	47	48	34	22	9,1	13,6	15,8	20,4	223	333	389	503
500	3,5	49	51	35	23	14,4	22,5	25,9	32,8	353	532	623	809
	1,75	55	57	40	26	13,3	19,6	22,8	29,3	326	482	562	724

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		
300	3	149	197	208	229	303	430	481	585	194,65	19,09
	1,5	146	191	201	220	287	402	447	538	53,92	5,29
500	3,5	242	317	332	363	465	654	727	876	316,51	31,04
	1,75	237	309	322	349	444	614	678	808	87,68	8,60

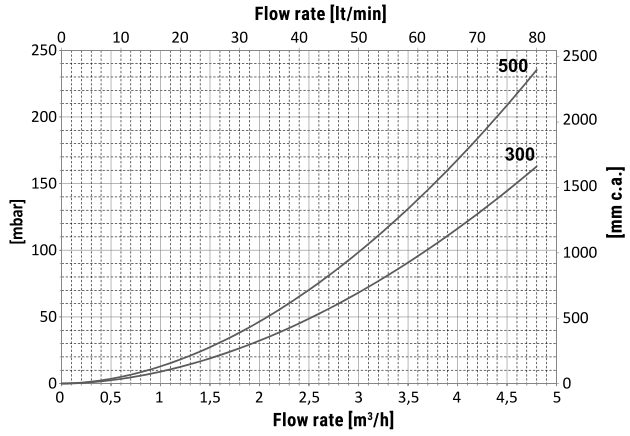
LOWER
HEAT EXCHANGER



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 within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	[m³/h]	T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	82	85	60	39	15,6	23,4	27,3	36,3	384	576	673	871
	1,5	94	98	69	45	14,6	21,2	24,6	31,6	354	522	607	778
500	3,5	100	104	73	48	22,3	33,2	38,7	49,9	549	820	956	1234
	1,75	115	120	85	56	20,6	30	34,7	44,3	506	741	858	1095

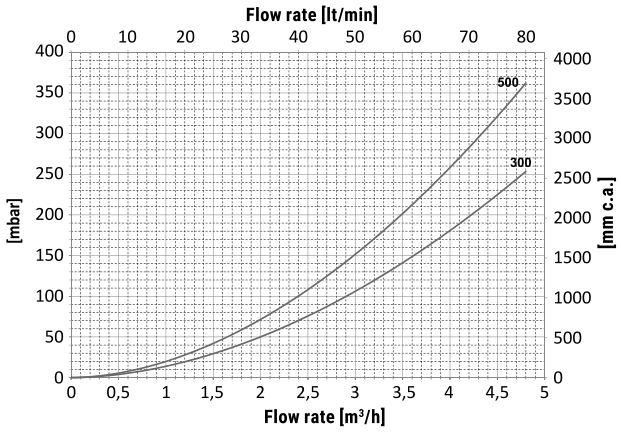
Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
	[m³/h]	T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
300	3	397	512	528	561	640	877	954	1113	1082,03	106,11
	1,5	392	503	517	545	616	833	901	1038	299,73	29,39
500	3,5	660	847	869	916	1007	1366	1475	1697	2056,48	201,67
	1,75	652	834	853	893	973	1303	1396	1586	569,66	55,86

HEAT EXCHANGERS PRESSURE DROP



UPPER

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



LOWER

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