# BOLLY® 1 ST

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

**APPLICATION**
Production and storage of domestic hot water.
**MATERIAL**
Mild steel Polywarm® coated (Attestation ACS - SSICA - DVGW - W270 - UBA - WRAS)
**HEAT EXCHANGER**
1 Polywarm® coated fixed heat exchanger.
**INSULATION**
- HARD: High thermal insulation with ecological polyurethane hard foam.
- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

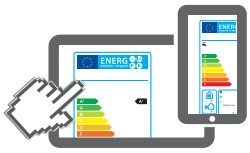
Grey PVC external lining complete with top and flange cover

**CATHODE PROTECTION**
Magnesium anode.
**DRAIN**
External confluence through drain connection.
Models > 500 external confluence through drain pipe.
**GASKET- FLANGE PLATE**
Silicone gaskets suitable for alimentary use for 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.

POLYWARM®

grey **STOCK AVAILABILITY**

**HARD FOAM** INSULATION



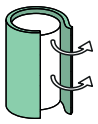
**www.cordivari.com/erp**

On line ErP label tool

**SOFT FLEECE** INSULATION

## BOLLY® 1 ST WB

| Model | HARD FOAM insulation Art. Nr. | HEAT EXCHANGER SURFACE [m²] | ENERGY EFFICIENCY CLASS ErP |
|---|---|---|---|
| **150** | 3105162321101 | 0,6 | **B** |
| **200** | 3105162321102 | 0,8 | **B** |
| **300** | 3105162321103 | 1,2 | **C** |
| **400** | 3105162321104 | 1,5 | **C** |
| **500** | 3105162321105 | 1,8 | **C** |
| **800** | 3104162331106 | 2,7 | **C** |
| **1000** | 3104162331107 | 3,5 | **C** |
| **1500** | 3104162331108 | 3,8 | **C** |



## BOLLY® 1 ST WC

| Model | DISMOUNTABLE SOFT FLEECE insulation Art. Nr. | HEAT EXCHANGER SURFACE [m²] | ENERGY EFFICIENCY CLASS ErP |
|---|---|---|---|
| **800** | 3103162321136 | 2,7 | **C** |
| **1000** | 3103162321137 | 3,5 | **C** |
| **1500** | 3103162321138 | 3,8 | **C** |

### ELECTRICAL IMMERSION HEATERS

| Mod. | Volume of water heated by the electrical immersion [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 immersion heaters [min] | | | Ignition time from 10 °C to 45 °C with immersion heaters [min] | | | | |
| **150** | 42 | 76 | 57 | 38 | // | // | // | // | // |
| **200** | 72 | 128 | 96 | 64 | // | // | // | // | // |
| **300** | 113 | 202 | 152 | 101 | // | // | // | // | // |
| **400** | 167 | 299 | 225 | 150 | // | // | // | // | // |
| **500** | 184 | 329 | 247 | 165 | // | // | // | // | // |
| **800** | 313 | 560 | 420 | 280 | // | // | // | // | // |
| **1000** | 383 | 686 | 514 | 343 | 257 | 206 | 171 | 114 | 86 |
| **1500** | 557 | 998 | 749 | 499 | 374 | 299 | 250 | 166 | 125 |

## Accessories on request

**"Easy Control" Electronic Display**

| ART. NR. | FOR MODELS |
|---|---|
| 5005000310002 | WC |
| 5005000310003 | WB |

**Electrical immersion flange plate**

See Accessories section

**Titanium electronic anode**

See Accessories section

# BOLLY® 1 ST

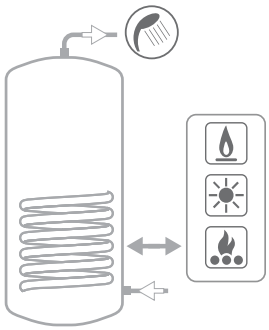
## POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER

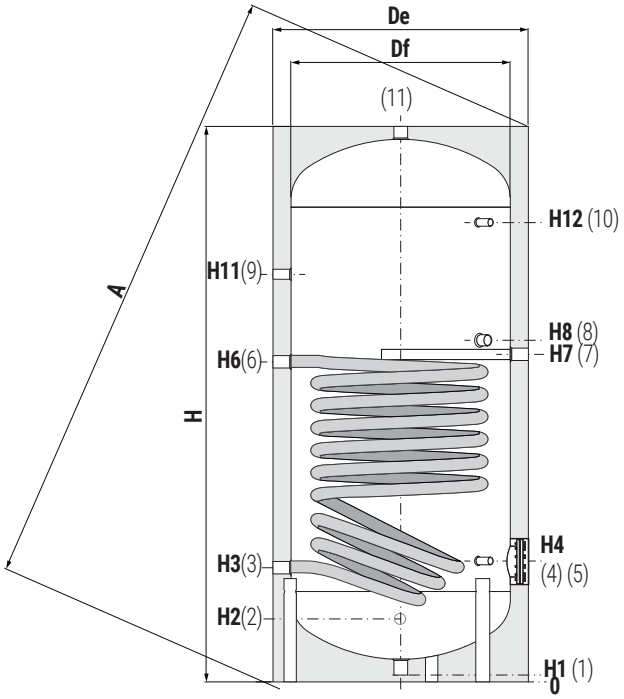
| | STORAGE | | HEAT EXCHANGER | |
|---|---|---|---|---|
| Model | Pmax | Tmax | Pmax | Tmax |
| 150 ÷ 800 | 10 bar | 90 °C | 12 bar | 110 °C |
| 1000 ÷ 1500 | 8 bar | | | |

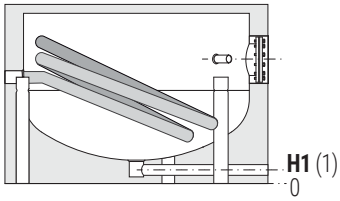
CORDIVARI Lab
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

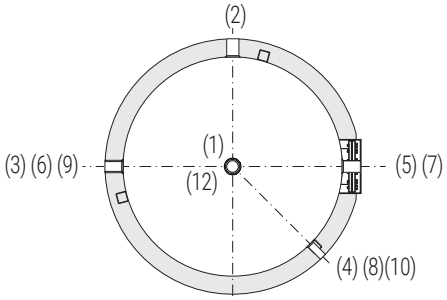
TESTED CORDIVARI Lab ErP - ECODESIGN

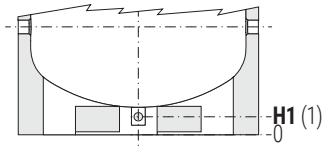
ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS






Models 1500 have two gripps on the bottom which allow the use of forklift when handling and drain pipe already fitted.

| | |
|---|---|
| **1** | Drain 1"1/4 Gas F (3/4"su 800 e 1000.) (1" su 1500) |
| **2** | Domestic cold water circuit inlet |
| **3** | Primary circuit outlet |
| **4** | Connection for instrumentation 1/2" Gas F |
| **5** | Blind flange for inspection |
| **6** | Primary circuit inlet |
| **7** | Connection for magnesium anode 1"1/4 Gas F |
| **8** | Connection for electrical immersion |
| **9** | Recirculation |
| **10** | Connection for instrumentation 1/2" Gas F |
| **11** | Domestic hot water outlet |

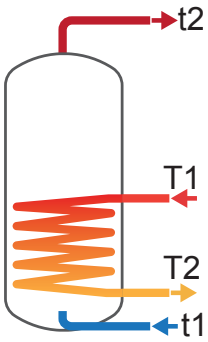
| Model | Volume | Weight | Df | De | De | H | A | H1 | H2 | H3 | H4 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (vers. WC) | (vers. WC) | (vers. WB) | | | | | | |
| | [litres] | [Kg] | [mm] | | | [mm] | | | | | |
| **150** | 148 | 49 | // | // | 500 | 1414 | 1500 | 70 | 210 | 275 | 315 |
| **200** | 189 | 55 | // | // | 550 | 1434 | 1536 | 70 | 220 | 285 | 325 |
| **300** | 291 | 67 | // | // | 650 | 1486 | 1622 | 70 | 246 | 311 | 381 |
| **400** | 422 | 88 | // | // | 700 | 1766 | 1900 | 70 | 261 | 326 | 396 |
| **500** | 498 | 120 | // | // | 750 | 1786 | 1937 | 70 | 271 | 346 | 411 |
| **800** | 789 | 184 | 750 | 950 | 900 | 2163 | 2343 | 101 | 493 | 328 | 483 |
| **1000** | 1038 | 215 | 850 | 1050 | 1000 | 2217 | 2432 | 89 | 524 | 439 | 499 |
| **1500** | 1443 | 389 | 950 | 1150 | 1100 | 2440 | 2654 | 109 | 450 | 425 | 575 |

| Model | H6 | H7 | H8 | H11 | H12 | 5 | 2 | 3 | 6 | 8 | 9 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | | | | | Connections Gas F | | | | | |
| **150** | 888 | 956 | 1011 | 1065 | 1185 | Ø 120 | 3/4" | 1"1/4 | 1"1/4 | 1"1/2 | 3/4" | 1"1/4 |
| **200** | 811 | 855 | 915 | 1089 | 1195 | Ø 120 | 3/4" | 1"1/4 | 1"1/4 | 1"1/2 | 3/4" | 1"1/4 |
| **300** | 832 | 871 | 931 | 1101 | 1221 | Ø 120 | 1" | 1"1/4 | 1"1/4 | 1"1/2 | 1" | 1"1/4 |
| **400** | 988 | 1033 | 1091 | 1286 | 1486 | Ø 120 | 1" | 1"1/4 | 1"1/4 | 1"1/2 | 1" | 1"1/4 |
| **500** | 1036 | 1076 | 1144 | 1331 | 1476 | Ø 120 | 1" | 1"1/4 | 1"1/4 | 1"1/2 | 1" | 1"1/4 |
| **800** | 1181 | 1243 | 1308 | 1598 | 1788 | Ø 160 | 1" | 1"1/4 | 1"1/4 | 2" | 1" | 1"1/4 |
| **1000** | 1279 | 1309 | 1364 | 1584 | 1819 | Ø 160 | 1"1/4 | 1"1/4 | 1"1/4 | 2" | 1" | 1"1/2 |
| **1500** | 1403 | 1450 | 1515 | 1825 | 2065 | Ø 300 | 1"1/2 | 1"1/4 | 1"1/4 | 2" | 1" | 2" |

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 ST- 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 continue way from 10 °C at 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.

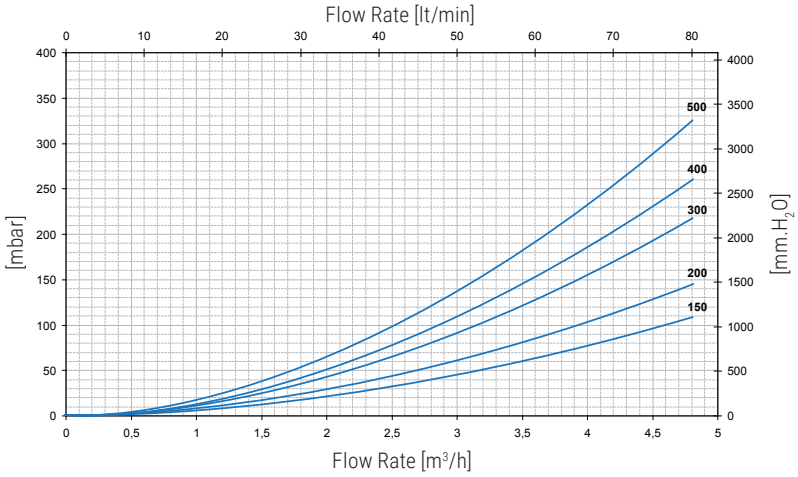


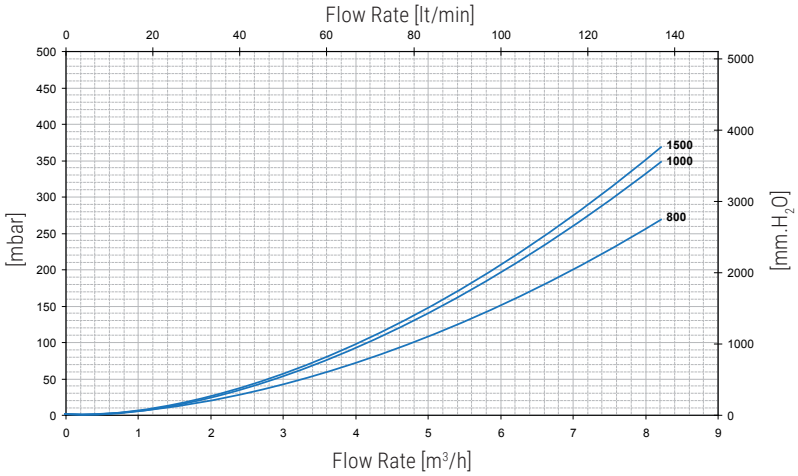

FIXED HEAT EXCHANGER

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

## PRESSURE LOSS - FIXED HEAT EXCHANGERS BOLLY ®1 ST

| Heat exchanger surface [m²] | |
|---|---|
| **150** | 0,6 |
| **200** | 0,8 |
| **300** | 1,2 |
| **400** | 1,5 |
| **500** | 1,8 |
| **800** | 2,7 |
| **1000** | 3,5 |
| **1500** | 3,8 |



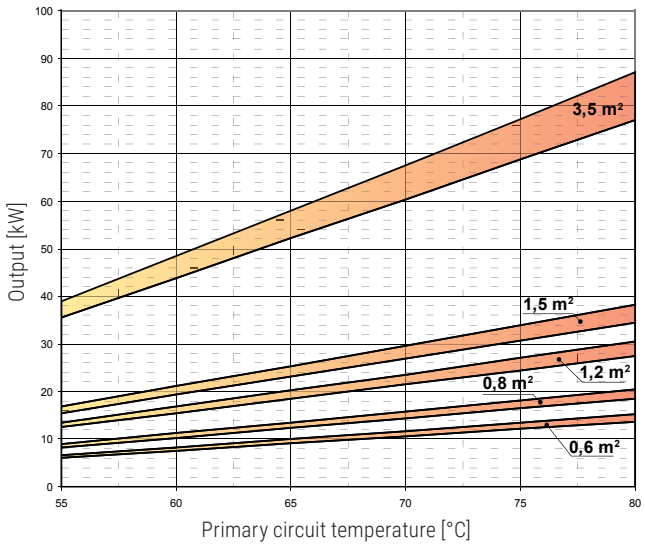



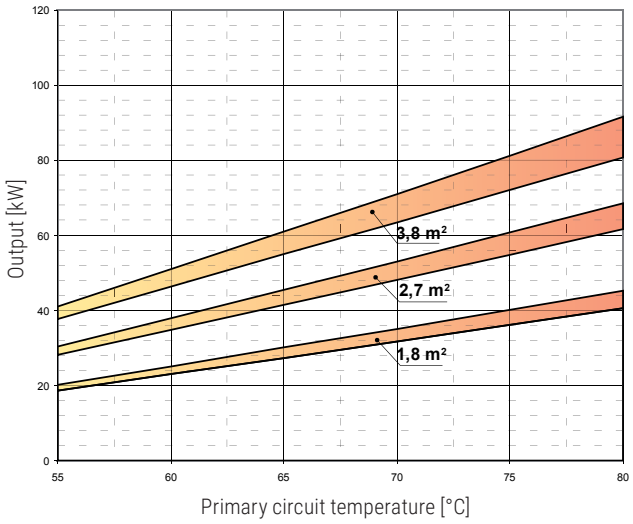
# BOLLY® 1 ST- HEAT EXCHANGERS TECHNICAL DATA

| 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 | | | | Flow rate | Exchanger pressure loss | |
|---|---|---|---|---|---|---|---|---|---|---|
| T1/t2 | | | | T1/t2 | | | | [m³/h] | [mm.H$_2$O] | [mbar] |
| 55/50 | 65/60 | 70/60 | 80/60 | 55/50 | 65/60 | 70/60 | 80/60 | | | |
| 195 | 251 | 258 | 272 | 298 | 407 | 440 | 507 | 2 | 218,85 | 21,46 |
| 193 | 247 | 253 | 266 | 287 | 388 | 418 | 479 | 1 | 60,62 | 5,95 |
| 253 | 325 | 335 | 354 | 392 | 536 | 581 | 675 | 2,5 | 441,12 | 43,26 |
| 250 | 321 | 329 | 346 | 378 | 512 | 553 | 635 | 1,25 | 122,19 | 11,98 |
| 388 | 499 | 513 | 542 | 597 | 814 | 882 | 1021 | 3 | 927,45 | 90,95 |
| 384 | 492 | 504 | 529 | 578 | 780 | 839 | 960 | 1,5 | 256,91 | 25,19 |
| 550 | 706 | 723 | 759 | 814 | 1101 | 1186 | 1359 | 3,5 | 1480,67 | 145,20 |
| 546 | 697 | 712 | 744 | 791 | 1058 | 1133 | 1284 | 1,75 | 410,16 | 40,22 |
| 651 | 834 | 855 | 897 | 965 | 1304 | 1404 | 1607 | 3,5 | 1850,84 | 181,50 |
| 645 | 822 | 840 | 877 | 935 | 1249 | 1336 | 1510 | 1,75 | 512,70 | 50,28 |
| 1026 | 1314 | 1345 | 1410 | 1499 | 2023 | 2174 | 2483 | 6 | 1538,50 | 150,87 |
| 1017 | 1297 | 1325 | 1381 | 1455 | 1944 | 2076 | 2344 | 3 | 426,18 | 41,79 |
| 1345 | 1720 | 1759 | 1840 | 1952 | 2625 | 2815 | 3202 | 6 | 1994,35 | 195,58 |
| 1332 | 1696 | 1730 | 1799 | 1891 | 2512 | 2675 | 3004 | 3 | 552,45 | 54,18 |
| 1870 | 2378 | 2419 | 2504 | 2509 | 3330 | 3530 | 3936 | 6 | 2108,31 | 206,75 |
| 1856 | 2352 | 2388 | 2459 | 2443 | 3209 | 3378 | 3722 | 3 | 584,02 | 57,27 |

## HEAT EXCHANGERS OUTPUT CHART BOLLY ® ST

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 CURVE REFERS TO THE MINIMUM PRIMARY FLOW RATE)




| Heat exchanger surface | 0,6 m² | | 0,8 m² | | 1,2 m² | | 1,5 m² | | 3,5 m² | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow rate [m³/h] | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| | 2 | 1 | 2,5 | 1,25 | 3 | 1,5 | 3,5 | 1,75 | 6 | 3 |

| Heat exchanger surface | 1,8 m² | | 2,7 m² | | 3,8 m² | |
|---|---|---|---|---|---|---|
| Flow rate [m³/h] | MAX | MIN | MAX | MIN | MAX | MIN |
| | 3,50 | 1,75 | 6 | 3 | 6 | 3 |