

# BOLLY® 1XL

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



## 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 - EN 16421)

## HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

## INSULATION

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

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

**SOFT (DISMOUNTABLE):** 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.

## CATHODE PROTECTION

Magnesium anode.

## DRAIN

External confluence through drain connection.

## GASKET- FLANGE PLATE

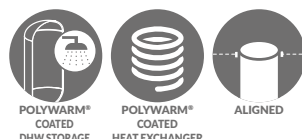
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate Polywarm® coated and connection for electric immersion heater.

## WARRANTY

5 years (See general sales conditions and warranty)

## ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



|  | Model       | Art. Nr.      | Heat exchangers surface | ENERGY EFFICIENCY CLASS |
|--|-------------|---------------|-------------------------|-------------------------|
|  |             |               | [m²]                    |                         |
|  | <b>200</b>  | 3104162330011 | 2                       | <b>B</b>                |
|  | <b>300</b>  | 3104162330012 | 3,4                     | <b>B</b>                |
|  | <b>400</b>  | 3104162330013 | 4,4                     | <b>C</b>                |
|  | <b>500</b>  | 3104162330014 | 5,4                     | <b>C</b>                |
|  | <b>800</b>  | 3104162330015 | 6,0                     | <b>B</b>                |
|  | <b>1000</b> | 3104162330016 | 6,5                     | <b>B</b>                |
|  | <b>1500</b> | 3104162330060 | 7,7                     | <b>C</b>                |
|  | <b>800</b>  | 3104162320007 | 6,0                     | <b>C</b>                |
|  | <b>1000</b> | 3104162320008 | 6,5                     | <b>C</b>                |
|  | <b>1500</b> | 3103162321160 | 7,7                     | <b>C</b>                |
|  | <b>200</b>  | 3104162330051 | 2                       | <b>A</b>                |
|  | <b>300</b>  | 3104162330052 | 3,4                     | <b>A</b>                |
|  | <b>500</b>  | 3104162330053 | 5,4                     | <b>A</b>                |

## ACCESSORIES

### ELECTRIC IMMERSION HEATERS

| Mod.        | Heated volume by electric immersion heater [lit] | MONOPHASE                                                               |                |                |
|-------------|--------------------------------------------------|-------------------------------------------------------------------------|----------------|----------------|
|             |                                                  | 1,5 kW                                                                  | 2 kW           | 3 kW           |
|             |                                                  | 52400000000051                                                          | 52400000000052 | 52400000000053 |
|             |                                                  | Ignition time from 10 °C to 45 °C with electric immersion heaters [min] |                |                |
| <b>200</b>  | 159                                              | 285                                                                     | 214            | 142            |
| <b>300</b>  | 235                                              | 421                                                                     | 316            | 210            |
| <b>400</b>  | 353                                              | 632                                                                     | 474            | 316            |
| <b>500</b>  | 413                                              | 741                                                                     | 555            | 370            |
| <b>800</b>  | 668                                              | 1197                                                                    | 898            | 598            |
| <b>1000</b> | 874                                              | 1565                                                                    | 1174           | 783            |
| <b>1500</b> | 1000                                             | 1791                                                                    | 1343           | 895            |

| THREEPHASE                                                              |                |                |                |                |
|-------------------------------------------------------------------------|----------------|----------------|----------------|----------------|
| 4 kW                                                                    | 5 kW           | 6 kW           | 9 kW           | 12 kW          |
| 52400000000047                                                          | 52400000000048 | 52400000000049 | 52400000000050 | 52400000000031 |
| Ignition time from 10 °C to 45 °C with electric immersion heaters [min] |                |                |                |                |
| //                                                                      | //             | //             | //             | //             |
| 158                                                                     | //             | //             | //             | //             |
| 237                                                                     | //             | //             | //             | //             |
| 278                                                                     | 222            | //             | //             | //             |
| 449                                                                     | 359            | 299            | 199            | //             |
| 587                                                                     | 470            | 391            | 261            | 196            |
| 671                                                                     | 537            | 448            | 298            | 224            |

### FULL CONTROL electronic unit (mounted on tank)

| Art. Nr.      | for models |
|---------------|------------|
| 5220280000004 | WC         |
| 5220280000005 | WB         |

For Class A models, only the version not pre-assembled on the tank is available.

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

| Art. Nr.       | Output [kW] |
|----------------|-------------|
| 52400000000074 | 1,5         |
| 52400000000075 | 2           |
| 52400000000076 | 3           |

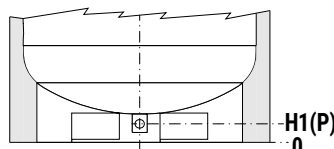
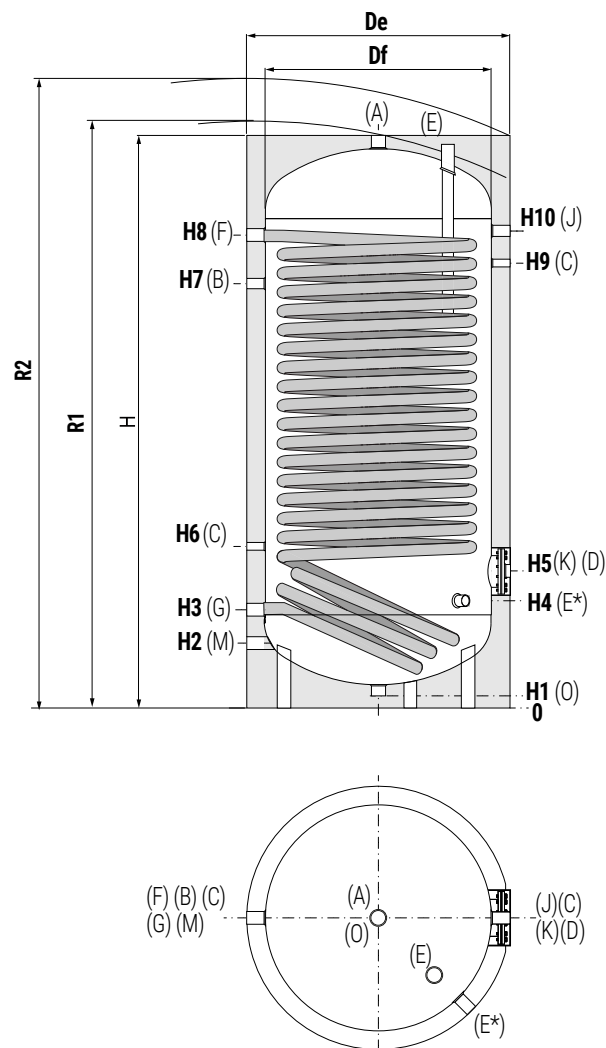
### Titanium anode

|                         |  |
|-------------------------|--|
| See Accessories section |  |
|-------------------------|--|

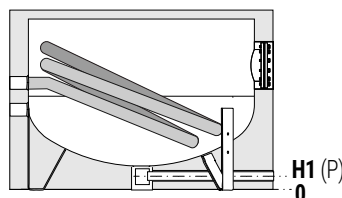
# BOLLY® 1XL

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

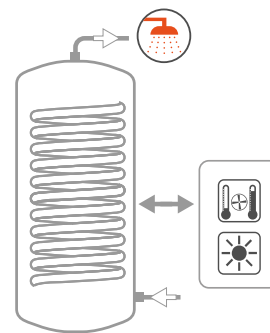
| Model     | STORAGE |       | HEAT EXCHANGER |        |
|-----------|---------|-------|----------------|--------|
|           | Pmax    | Tmax  | Pmax           | Tmax   |
| 200÷800   | 10 bar  | 90 °C | 12 bar         | 110 °C |
| 1000,1500 | 8 bar   |       |                |        |



Models 1500 are equipped with a practical skirt support which facilitates the handling with transpallets and forklifts. Also, discharge piping already mounted to allow total emptying.



Only for models 800- 1000



|           |                                                                   |
|-----------|-------------------------------------------------------------------|
| <b>A</b>  | Domestic hot water outlet                                         |
| <b>B</b>  | Recirculation                                                     |
| <b>C</b>  | Connection for instrumentation G 1/2" F                           |
| <b>D</b>  | Connection for electric immersion heater                          |
| <b>E</b>  | Connection for magnesium anode G 1"1/4 F (for models ≤ lt.1000)   |
| <b>E*</b> | Connection for magnesium anode G 1"1/4 F (For model lt.1500)      |
| <b>F</b>  | Primary circuit inlet G 1"1/4 F                                   |
| <b>G</b>  | Primary circuit outlet G 1"1/4 F                                  |
| <b>J</b>  | Connection for 2nd magnesium anode G 1"1/4 F (for models lt.1500) |
| <b>K</b>  | Flange for inspection                                             |
| <b>M</b>  | Domestic cold water circuit inlet                                 |
| <b>O</b>  | Drain G 1"1/4 F                                                   |
| <b>P</b>  | Drain for models >500                                             |

## BOLLY® 1XL WB + XL WB CLASS A(HARD FOAM INSULATION)

| Model       | Volume | Weight | Df   | H    | De   | R1 | R2   | H1  | H2  | H3  | H4  | H5  | H6  | H7   | H8   | H9   | H10  | K           | M     | B    | A     | D     | P    |
|-------------|--------|--------|------|------|------|----|------|-----|-----|-----|-----|-----|-----|------|------|------|------|-------------|-------|------|-------|-------|------|
|             | [lt]   | [Kg]   | [mm] |      |      |    |      |     |     |     |     |     |     |      |      |      |      |             |       |      |       |       |      |
| <b>200</b>  | 189    | 96     | //   | 1440 | 550  | // | 1560 | 71  | 215 | 285 | //  | 325 | 405 | 1055 | 1190 | 1190 | //   | Øi120/Øe180 | 3/4"  | 3/4" | 1"1/4 | 1"1/2 | //   |
| <b>300</b>  | 291    | 130    | //   | 1500 | 650  | // | 1650 | 71  | 241 | 321 | //  | 381 | 431 | 1091 | 1211 | 1211 | //   | Øi120/Øe180 | 1"    | 1"   | 1"1/4 | 1"1/2 | //   |
| <b>400</b>  | 422    | 154    | //   | 1780 | 700  | // | 1930 | 71  | 256 | 336 | //  | 396 | 446 | 1316 | 1471 | 1471 | //   | Øi120/Øe180 | 1"    | 1"   | 1"1/4 | 1"1/2 | //   |
| <b>500</b>  | 497    | 174    | //   | 1800 | 750  | // | 1960 | 71  | 266 | 346 | //  | 411 | 466 | 1326 | 1486 | 1486 | //   | Øi120/Øe180 | 1"    | 1"   | 1"1/4 | 1"1/2 | //   |
| <b>800</b>  | 789    | 264    | //   | 2170 | 900  | // | 2360 | 101 | 338 | 418 | //  | 483 | 538 | 1548 | 1808 | 1808 | //   | Øi170/Øe240 | 1"    | 1"   | 1"1/4 | 2"    | 3/4" |
| <b>1000</b> | 1038   | 303    | //   | 2230 | 1000 | // | 2460 | 89  | 359 | 439 | //  | 499 | 559 | 1584 | 1829 | 1829 | //   | Øi170/Øe240 | 1"1/4 | 1"   | 1"1/2 | 2"    | 3/4" |
| <b>1500</b> | 1438   | 368    | //   | 2420 | 1100 | // | 2670 | 109 | 335 | 425 | 495 | 575 | 545 | 1825 | 2015 | 1940 | 2065 | Øi300/Øe380 | 1"1/2 | 1    | 2     | 2     | 1"   |

Net volume data according to EN 15332 available on product label.

## BOLLY® 1XL WC (DISMOUNTABLE SOFT FLEECE INSULATION)

| Model       | Volume | Weight | Df   | H    | De   | R1   | R2   | H1  | H2  | H3  | H4  | H5  | H6  | H7   | H8   | H9   | H10  | K           | M     | B  | A     | D  | P    |
|-------------|--------|--------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|------|------|-------------|-------|----|-------|----|------|
|             | [lt]   | [Kg]   | [mm] |      |      |      |      |     |     |     |     |     |     |      |      |      |      |             |       |    |       |    |      |
| <b>800</b>  | 789    | 226    | 750  | 2190 | 950  | 2330 | 2400 | 101 | 338 | 418 | //  | 483 | 538 | 1548 | 1808 | 1808 | //   | Øi170/Øe240 | 1"    | 1" | 1"1/4 | 2" | 3/4" |
| <b>1000</b> | 1038   | 255    | 850  | 2250 | 1050 | 2420 | 2500 | 89  | 359 | 439 | //  | 499 | 559 | 1584 | 1829 | 1829 | //   | Øi170/Øe240 | 1"1/4 | 1" | 1"1/2 | 2" | 3/4" |
| <b>1500</b> | 1438   | 358    | 950  | 2440 | 1150 | 2630 | 2710 | 109 | 335 | 425 | 495 | 575 | 545 | 1825 | 2015 | 1940 | 2065 | Øi300/Øe380 | 1"1/2 | 1  | 2     | 2  | 1"   |

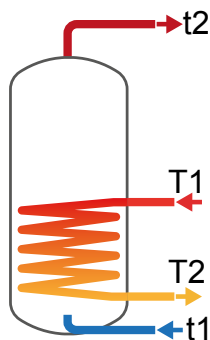
Net volume data according to EN 15332 available on product label.



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

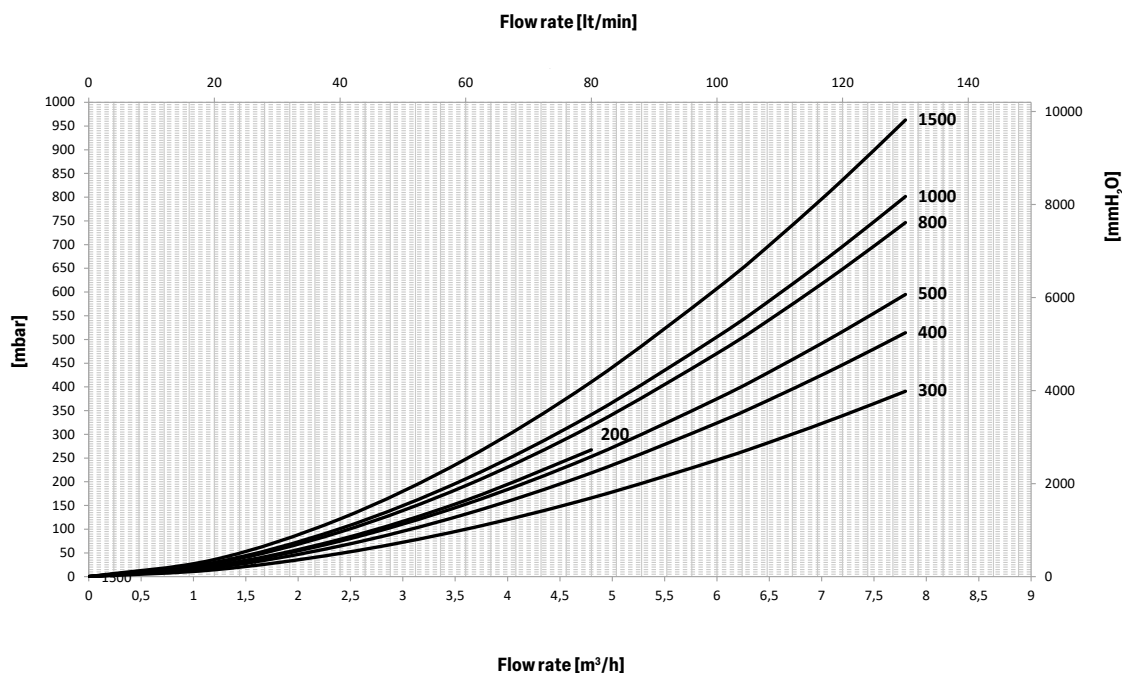
| Model | Primary flow rate<br>[m³/h] | Ignition time (minutes) from 10 °C to t2 and primary at T1 |       |       |       |       | Maximum power exchange (kW) with primary at T1, secondary from 10°C to t2 constant use of DHW production |       |       |       |       | DHW continuous production lt/h from 10°C to t2 and primary at T1 |       |       |       |  |
|-------|-----------------------------|------------------------------------------------------------|-------|-------|-------|-------|----------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|------------------------------------------------------------------|-------|-------|-------|--|
|       |                             | 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   | 2,5                         | 40                                                         | 42    | 30    | 20    | 21    | 31                                                                                                       | 36    | 47    | 34    | 522   | 773                                                              | 899   | 1153  | 589   |  |
|       | 1,25                        | 49                                                         | 52    | 36    | 24    | 19    | 28                                                                                                       | 32    | 40    | 30    | 468   | 677                                                              | 780   | 990   | 522   |  |
| 300   | 3                           | 44                                                         | 46    | 32    | 22    | 30    | 45                                                                                                       | 52    | 66    | 58    | 751   | 1104                                                             | 1281  | 1640  | 1016  |  |
|       | 1,5                         | 55                                                         | 57    | 41    | 27    | 27    | 39                                                                                                       | 44    | 56    | 51    | 664   | 951                                                              | 1093  | 1377  | 893   |  |
| 400   | 3,5                         | 47                                                         | 49    | 35    | 23    | 42    | 61                                                                                                       | 71    | 90    | 78    | 1033  | 1510                                                             | 1747  | 2229  | 1355  |  |
|       | 1,75                        | 59                                                         | 62    | 44    | 30    | 37    | 53                                                                                                       | 60    | 75    | 68    | 915   | 1298                                                             | 1486  | 1863  | 1190  |  |
| 500   | 3,5                         | 49                                                         | 51    | 36    | 24    | 48    | 70                                                                                                       | 81    | 103   | 78    | 1198  | 1740                                                             | 2009  | 2551  | 1355  |  |
|       | 1,75                        | 62                                                         | 65    | 47    | 31    | 43    | 60                                                                                                       | 68    | 85    | 68    | 1060  | 1487                                                             | 1696  | 2114  | 1190  |  |
| 800   | 5                           | 59                                                         | 61    | 43    | 29    | 64    | 93                                                                                                       | 107   | 136   | 116   | 1571  | 2291                                                             | 2650  | 3372  | 2022  |  |
|       | 2,5                         | 72                                                         | 76    | 55    | 37    | 57    | 80                                                                                                       | 92    | 115   | 103   | 1412  | 1993                                                             | 2277  | 2845  | 1790  |  |
| 1000  | 8                           | 65                                                         | 68    | 48    | 32    | 72    | 106                                                                                                      | 124   | 158   | 131   | 1780  | 2632                                                             | 3058  | 3925  | 2290  |  |
|       | 4                           | 76                                                         | 80    | 57    | 38    | 66    | 95                                                                                                       | 110   | 139   | 119   | 1642  | 2364                                                             | 2720  | 3436  | 2085  |  |
| 1500  | 8                           | 79                                                         | 82    | 59    | 39    | 83    | 122                                                                                                      | 141   | 180   | 156   | 2057  | 3017                                                             | 3497  | 4465  | 2728  |  |
|       | 4                           | 94                                                         | 99    | 71    | 48    | 76    | 109                                                                                                      | 124   | 156   | 141   | 1887  | 2691                                                             | 3086  | 3878  | 2462  |  |



| Model | Primary flow rate<br>[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 <sub>2</sub> O]         | [mbar] |
|       |                             | 55/50                                                                                                    | 65/60 | 70/60 | 80/60 | 55/50                                                                                              | 65/60 | 70/60 | 80/60 |                              |        |
| 200   | 2,5                         | 303                                                                                                      | 399   | 420   | 462   | 634                                                                                                | 888   | 989   | 1193  | 871                          | 85     |
|       | 1,25                        | 294                                                                                                      | 383   | 400   | 435   | 590                                                                                                | 811   | 894   | 1062  | 260                          | 25     |
| 300   | 3                           | 458                                                                                                      | 600   | 629   | 689   | 934                                                                                                | 1299  | 1441  | 1728  | 759                          | 74     |
|       | 1,5                         | 443                                                                                                      | 574   | 598   | 645   | 864                                                                                                | 1176  | 1290  | 1517  | 235                          | 23     |
| 400   | 3,5                         | 655                                                                                                      | 855   | 894   | 974   | 1309                                                                                               | 1811  | 2001  | 2386  | 1287                         | 126    |
|       | 1,75                        | 635                                                                                                      | 819   | 850   | 913   | 1214                                                                                               | 1641  | 1791  | 2093  | 407                          | 40     |
| 500   | 3,5                         | 769                                                                                                      | 1001  | 1046  | 1137  | 1528                                                                                               | 2103  | 2319  | 2752  | 1491                         | 146    |
|       | 1,75                        | 746                                                                                                      | 959   | 994   | 1064  | 1417                                                                                               | 1901  | 2068  | 2403  | 472                          | 46     |
| 800   | 5                           | 1165                                                                                                     | 1510  | 1570  | 1691  | 2160                                                                                               | 2962  | 3249  | 3826  | 3502                         | 343    |
|       | 2,5                         | 1138                                                                                                     | 1461  | 1508  | 1603  | 2032                                                                                               | 2723  | 2950  | 3405  | 1043                         | 102    |
| 1000  | 8                           | 1482                                                                                                     | 1920  | 1991  | 2136  | 2609                                                                                               | 3587  | 3928  | 4621  | 8530                         | 837    |
|       | 4                           | 1459                                                                                                     | 1875  | 1935  | 2054  | 2499                                                                                               | 3372  | 3657  | 4230  | 2561                         | 251    |
| 1500  | 8                           | 1986                                                                                                     | 2557  | 2637  | 2798  | 3289                                                                                               | 4468  | 4852  | 5626  | 10247                        | 1005   |
|       | 4                           | 1958                                                                                                     | 2503  | 2569  | 2701  | 3153                                                                                               | 4207  | 4523  | 5157  | 3079                         | 302    |

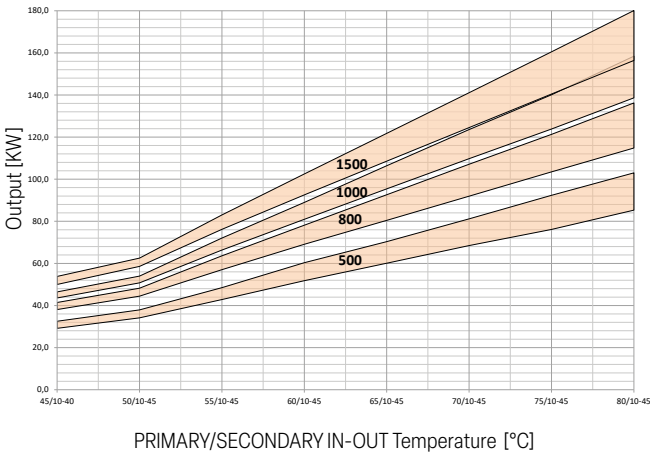
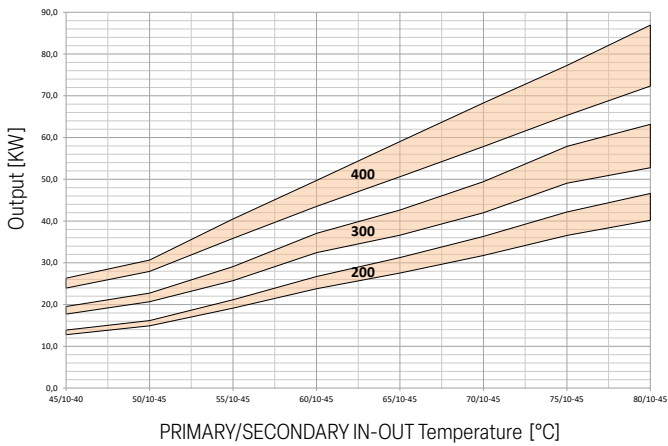
## HEAT EXCHANGERS PRESSURE DROP

| Heat exchangers surface [m²] |     |
|------------------------------|-----|
| 200                          | 2   |
| 300                          | 3,4 |
| 400                          | 4,4 |
| 500                          | 5,4 |
| 800                          | 6   |
| 1000                         | 6,5 |
| 1500                         | 7,7 |





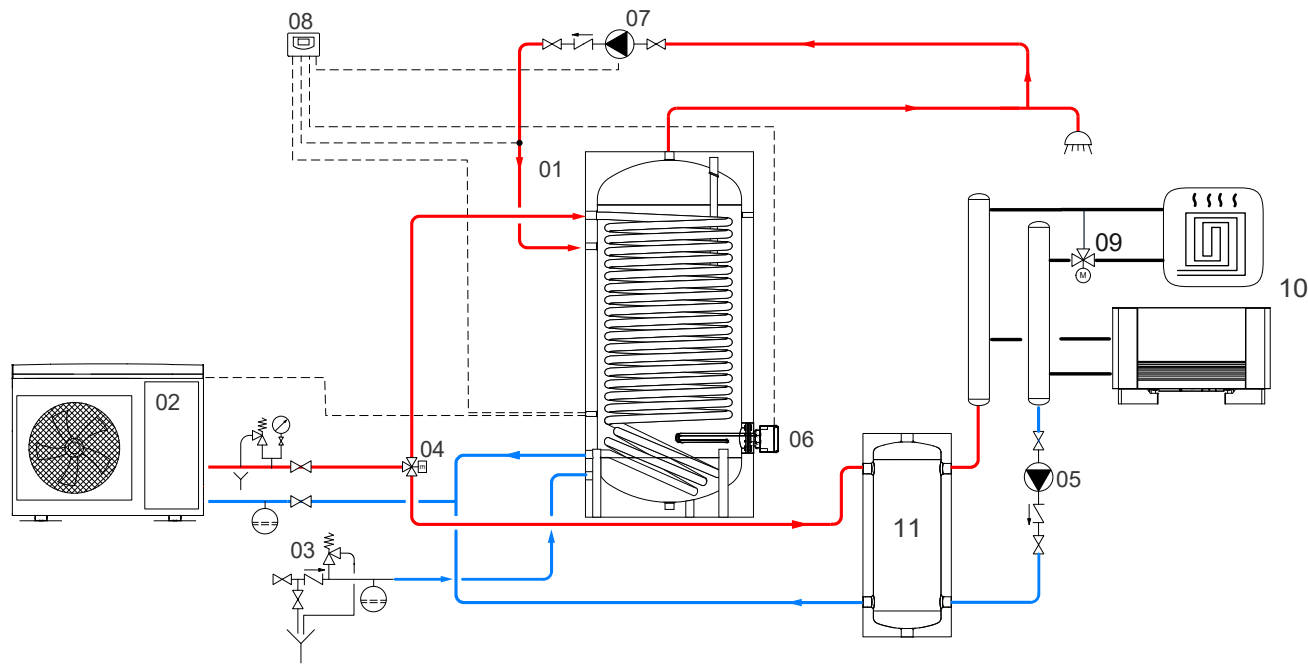
Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary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



| Model            | 200 |      | 300 |     | 400 |      |
|------------------|-----|------|-----|-----|-----|------|
| Flow rate [m³/h] | MAX | MIN  | MAX | MIN | MAX | MIN  |
|                  | 2,5 | 1,25 | 3   | 1,5 | 3,5 | 1,75 |

| Model            | 500 |      | 800 |     | 1000 |     | 1500 |     |
|------------------|-----|------|-----|-----|------|-----|------|-----|
| Flow rate [m³/h] | MAX | MIN  | MAX | MIN | MAX  | MIN | MAX  | MIN |
|                  | 3,5 | 1,75 | 5   | 2,5 | 8    | 4   | 8    | 4   |

EXAMPLE OF INSTALLATION WITH BOLLY® 1XL



|   |                        |   |                                              |   |                                           |    |               |
|---|------------------------|---|----------------------------------------------|---|-------------------------------------------|----|---------------|
| 1 | Bolly® 1XL             | 4 | Motorized 3-way valve                        | 7 | D.H.W. recirculation group                | 10 | Heating units |
| 2 | Generator (Heat pump)  | 5 | Circulation group for heating/cooling system | 8 | FULL CONTROL electronic unit / thermostat | 11 | Buffer tank   |
| 3 | Hydraulic safety group | 6 | Electric immersion heater                    | 9 | Thermostatic mixing valve                 |    |               |

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