

50 Hz



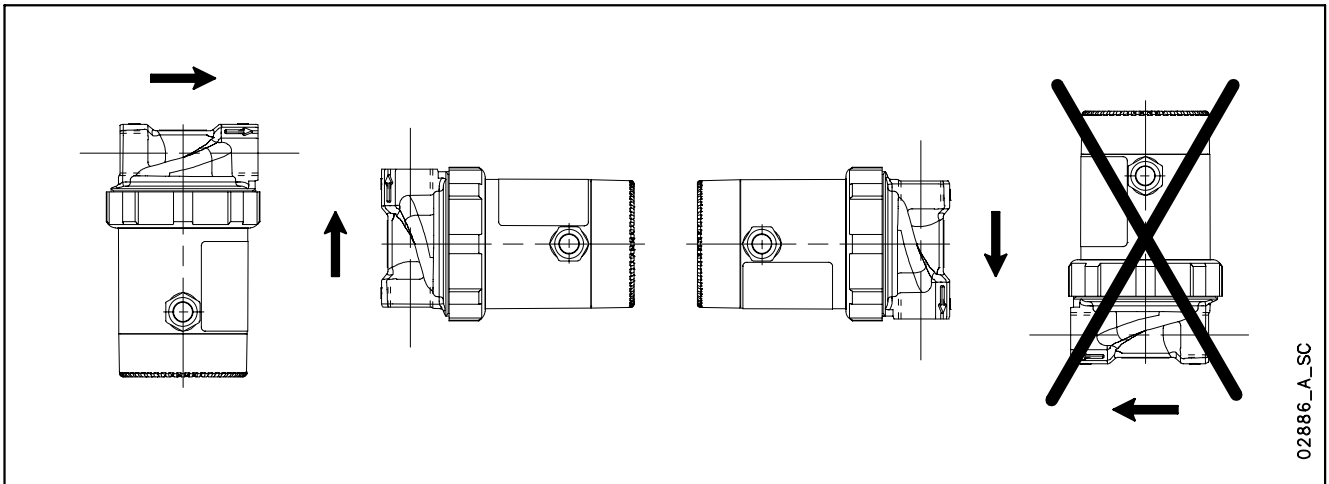
ecocirc[®] PRO Series

WET ROTOR CIRCULATORS
FOR SANITARY SYSTEMS

Cod. 191007211 Rev.A Ed.09/2013

 **LOWARA**
a xylem brand

**ecocirc® PRO SERIES
INSTALLATION POSITIONS**



High efficiency electronic sanitary circulators

MARKET SECTORS

RESIDENTIAL.

APPLICATIONS

- Hot water circulation.

ecocirc® PRO SERIES



SPECIFICATIONS

PUMP

- **Flow rate:** up to 1 m³/h.
- **Head:** up to 3 m.
- **Temperature of pumped liquid:** +2°C ÷ +65°C.
Avoid condensation and ice formation.
- **Maximum operating pressure:** 10 bar (PN 10).
- **Rotor assembly group:** made of stainless steel/composite material/carbon.

MOTOR

- Permanent magnet EC (Electronically Commutated) type motor with spherical rotor/stator.
- Wet rotor with a single spherical ceramic/carbon ball bearing.
- Integrated motor protection; no external protection required.
- Single-phase 200-240V 50/60 Hz power supply.
- Motor type:
 - Fixed speed for temperature sensor and temperature sensor + timer models;
 - Variable speed with automatic regulation for basic and timer models.
- **Insulation class** F (155°C).
- **Protection class:** IP 44 no-timer models.
IP 42 timer models.

**ecocirc® PRO
SERIES****CONSTRUCTION CHARACTERISTICS**

- Electric circulator pumps for domestic hot water applications at maximum temperature of 65°C, at maximum hardness of 25° f (14°dH).
- Brass pump body for direct installation onto piping for 1/2" and 1/2" - 1" 1/4" threaded union connections.
- The design is based on spherical rotor/stator technology.
This means that:
 - The only moving part is the spherical rotor/impeller unit that turns on a hard ceramic ball.
 - Shaft seals or conventional bearing bushings with a shaft have been eliminated for a single self realigning spherical bearing.
- Blockage free rotor: the spherical motor principle does not require a manual unblocking device thanks to the small touching surface of the bearing on the ball. The starting torque required is minimal.
- Air-purge functionality:
an automatic and quick routine to remove the air from the circulator and ensure safe operation.
- "Stand-by" mode.
- Self diagnostic and malfunction detection:
defects detected by the pump system are signalled with alternating LED light flashes.
- Insulation shell as a standard.
- Models available:
 - Fixed speed
 - Temperature sensor to maintain the water onto piping at the required temperature . The circulator automatically turns off when the water temperature achieves the value. Temperature can be set up between 20°C and 70°C by the selector on the motor.
 - Temperature sensor and timer for more energy saving.
 - Variable speed:
 - Performances optimized by system requests. Speed set up is done by a selector on the motor by 7 different positions. At 2 and 3 positions (ECO) the consumption is especially low.
 - Timer as a standard in order to daily set up the performances.
- 110 mm port-to-port length models are fitted out with non-return and shut off valve. 65 mm port-to-port length models are fitted out with a non-return valve to install to supply connection.
- According to EN standards 60335-1, 60335-2-51, 55014-1, 55014-2.

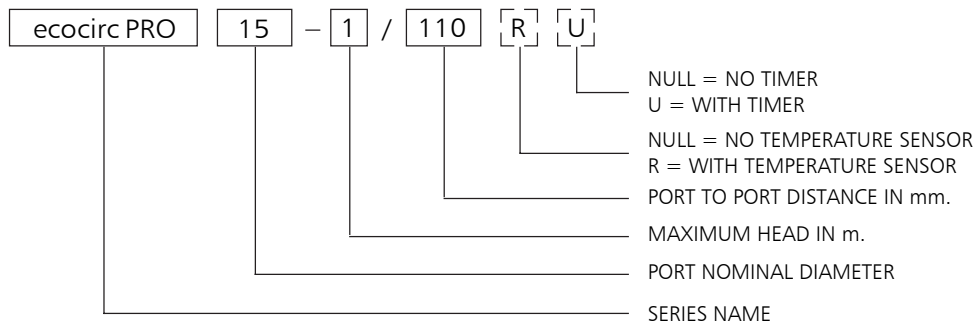
ACCESSORIES

- Pipe unions.

INSTALLATION

- Suitable for installation in vertical or horizontal piping, in this last case not with the motor housing upward.

ecocirc® PRO SERIES IDENTIFICATION CODE



EXAMPLE : ecocirc PRO 15-1/110 RU

Electronic circulator of the ecocirc PRO series, port nominal diameter = 15, max head = 1 m, port to port distance 110 mm, with temperature probe and timer.

TABLE OF MATERIALS

| PART | MATERIAL |
|----------------------|--------------------|
| Pump body | Brass |
| Rotor assembly group | Stainless steel |
| | Composite material |
| Bearing | Carbon |
| Gaskets | Ceramic |
| | EPDM |

eb-50-en_b_tm

Regulations (EC) n. 641/2009 and (EU) n. 622/2012 – Annex I – point 2 (Product information requirements)

- a) Energy efficiency index: note not applicable to these products.
- b) "The benchmark for most efficient circulators is $EEI \leq 0,20$ ": note not applicable to these products.
- c) Information relevant for disassembly, recycling or disposal at end-of-life: observe the current laws and by-laws governing sorted waste disposal. Consult the product operating manual.
- d) Information for circulators specifically designed to potable water uses: "This circulator is suitable for drinking water only".

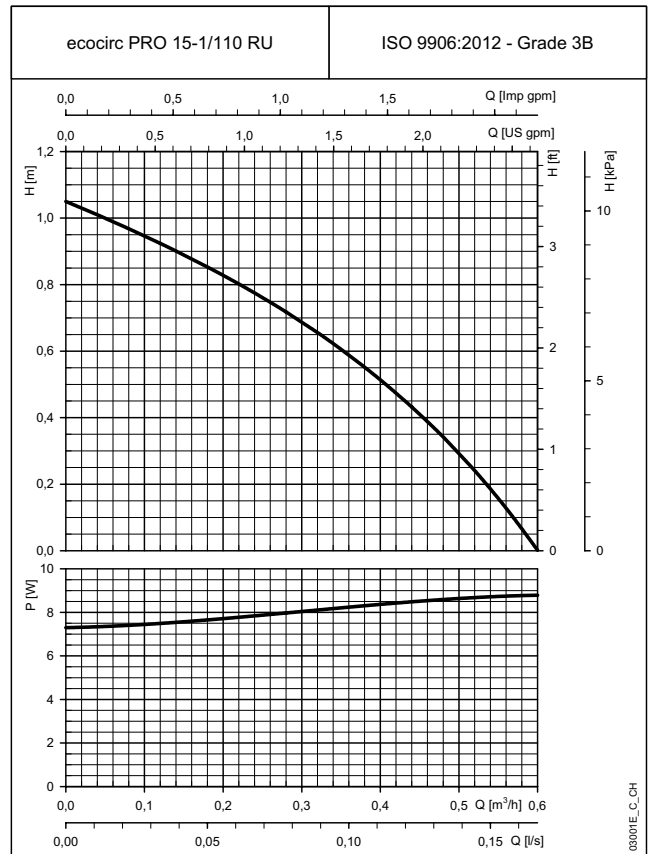
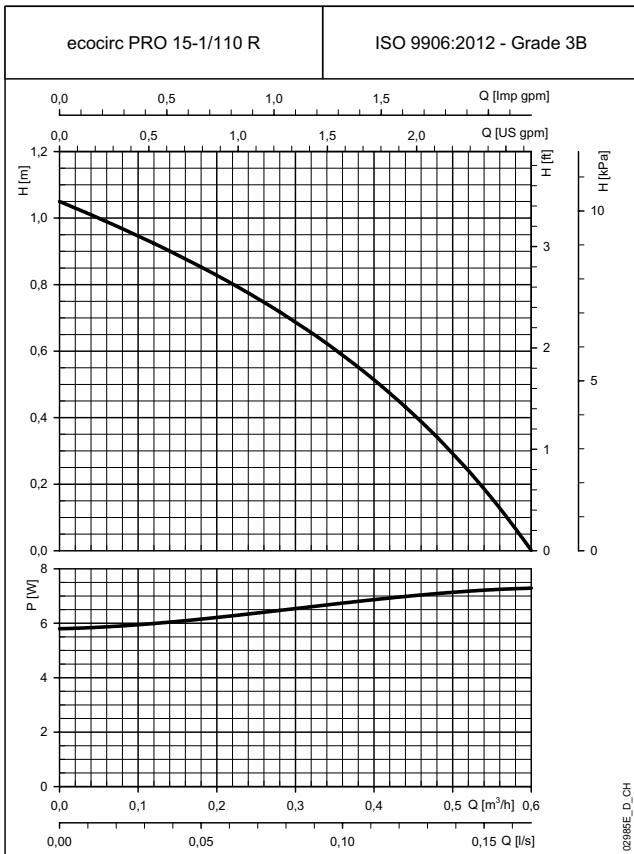
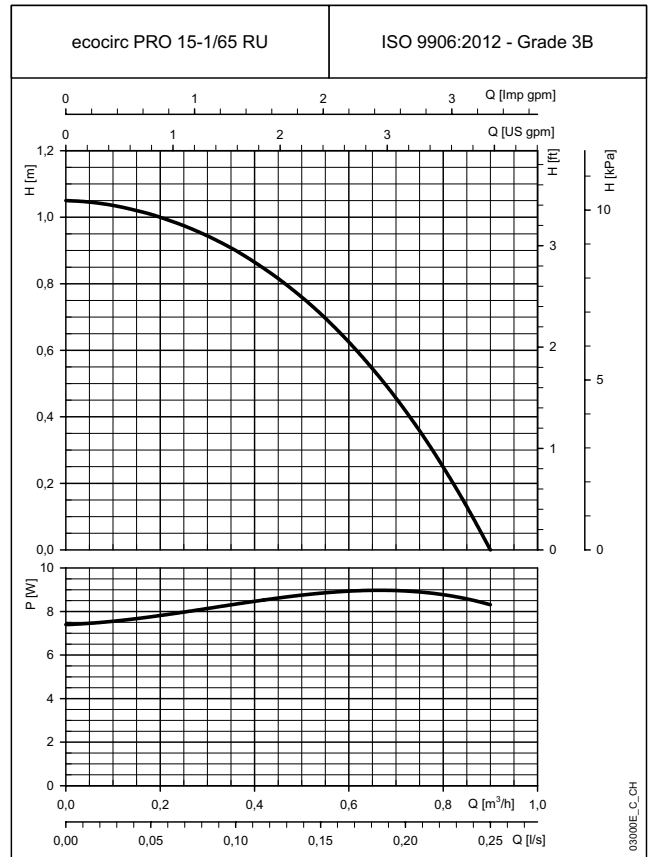
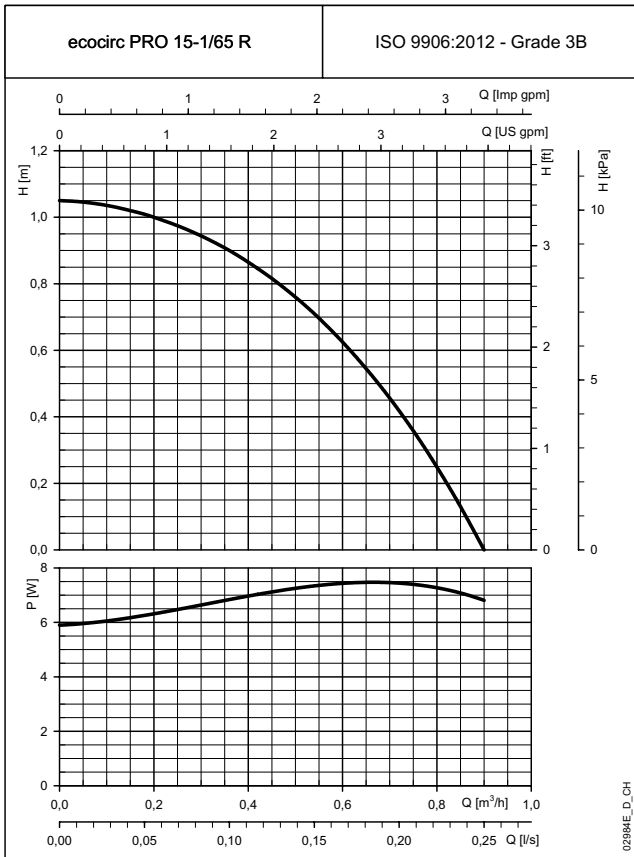
ecocirc® PRO SERIES HYDRAULIC PERFORMANCE TABLE

| PUMP TYPE ecocirc PRO 230V 50Hz | POWER ABSORBED | | SPEED | Q = DELIVERY | | | | | | | | | | |
|--|-------------------|----------|-------|---------------------|------|------|------|------|------|------|------|------|------|------|
| | MIN W | MAX W | | l/s 0 | 0,03 | 0,06 | 0,08 | 0,11 | 0,14 | 0,19 | 0,22 | 0,28 | 0,36 | 0,39 |
| | | | | m ³ /h 0 | 0,1 | 0,2 | 0,3 | 0,4 | 0,5 | 0,7 | 0,8 | 1 | 1,3 | 1,4 |
| H = TOTAL HEAD METRES COLUMN OF WATER | | | | | | | | | | | | | | |
| 15-1/65 R | 5,9 | 7,5 | max | 1,05 | 1,04 | 1,00 | 0,94 | 0,86 | 0,76 | 0,46 | 0,25 | | | |
| 15-1/65 RU | 7,4 | 9,0 | max | 1,05 | 1,04 | 1,00 | 0,94 | 0,86 | 0,76 | 0,46 | 0,25 | | | |
| 15-1/110 R | 5,8 | 7,3 | max | 1,05 | 0,95 | 0,83 | 0,69 | 0,51 | 0,29 | | | | | |
| 15-1/110 RU | 7,3 | 8,8 | max | 1,05 | 0,95 | 0,83 | 0,69 | 0,51 | 0,29 | | | | | |
| 15-1/65 | 2,6 | 2,7 | min | 0,20 | 0,18 | 0,15 | 0,10 | | | | | | | |
| | 5,9 | 7,5 | max | 1,05 | 1,04 | 1,00 | 0,94 | 0,86 | 0,76 | 0,46 | 0,25 | | | |
| 15-1/65 U | 4,1 | 4,2 | min | 0,20 | 0,18 | 0,15 | 0,10 | | | | | | | |
| | 7,4 | 9,0 | max | 1,05 | 1,04 | 1,00 | 0,94 | 0,86 | 0,76 | 0,46 | 0,25 | | | |
| 15-1/110 | 2,2 | 2,3 | min | 0,10 | | | | | | | | | | |
| | 5,8 | 7,3 | max | 1,05 | 0,95 | 0,83 | 0,69 | 0,51 | 0,29 | | | | | |
| 15-1/110 U | 3,7 | 3,8 | min | 0,10 | | | | | | | | | | |
| | 7,3 | 8,8 | max | 1,05 | 0,95 | 0,83 | 0,69 | 0,51 | 0,29 | | | | | |
| 15-3/65 | 2,6 | 2,6 | min | 0,25 | 0,24 | 0,20 | 0,12 | | | | | | | |
| | 17,1 | 23,7 | max | 3,10 | 3,09 | 3,08 | 3,07 | 3,06 | 3,04 | 3,02 | 3,00 | 2,97 | 2,91 | 2,89 |
| 15-3/110 | 4,0 | 4,0 | min | 0,20 | 0,11 | | | | | | | | | |
| | 17,1 | 26,6 | max | 3,31 | 3,20 | 3,08 | 2,96 | 2,84 | 2,71 | 2,43 | 2,28 | 1,96 | | |

Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

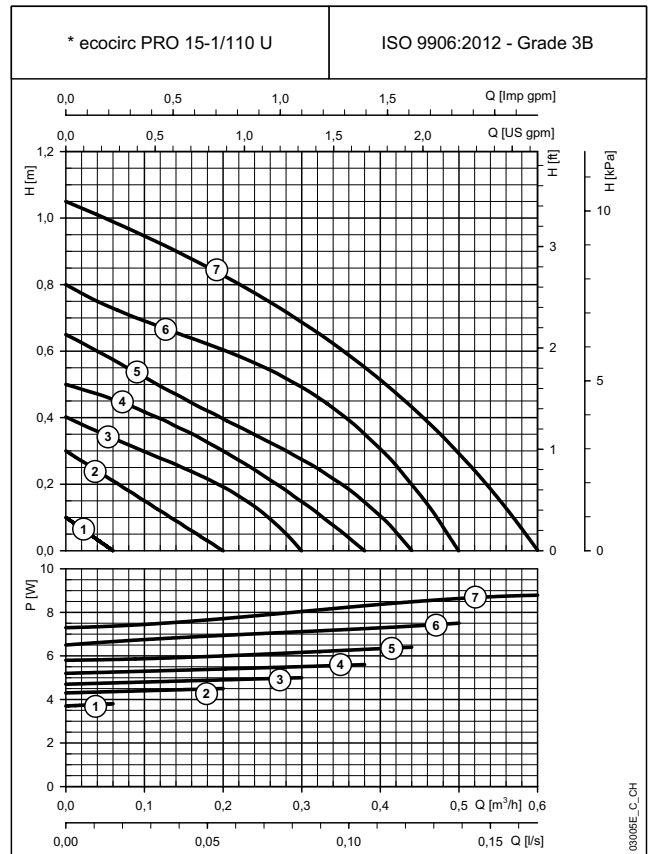
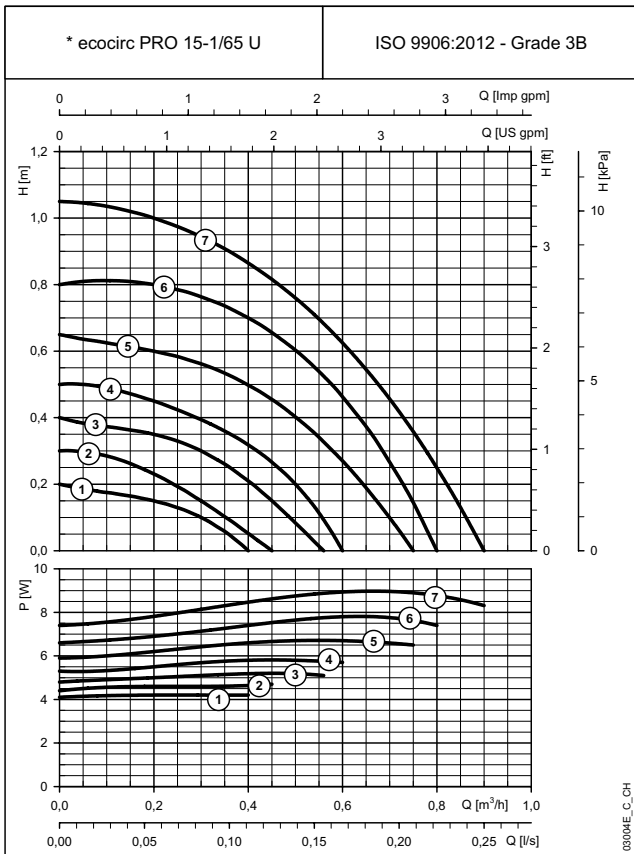
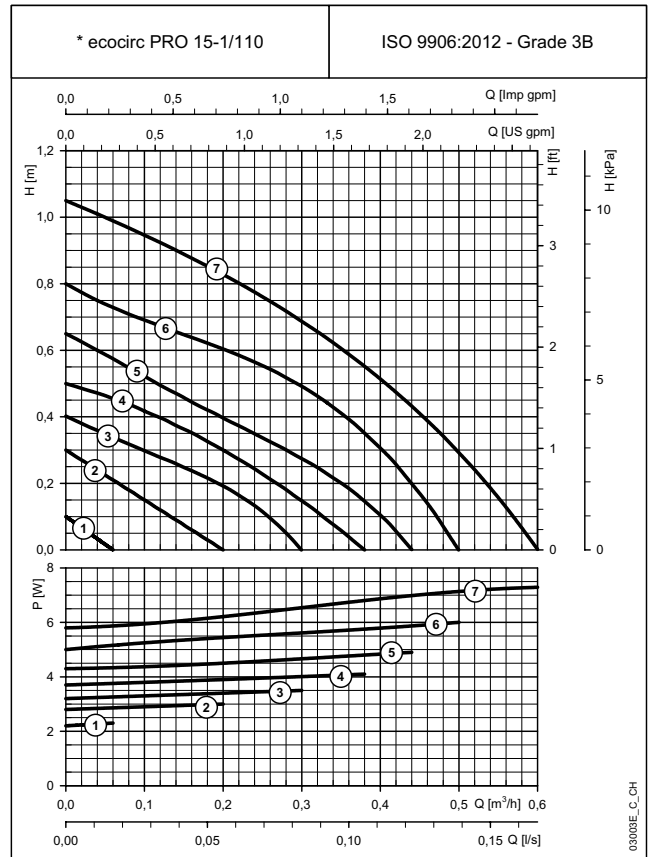
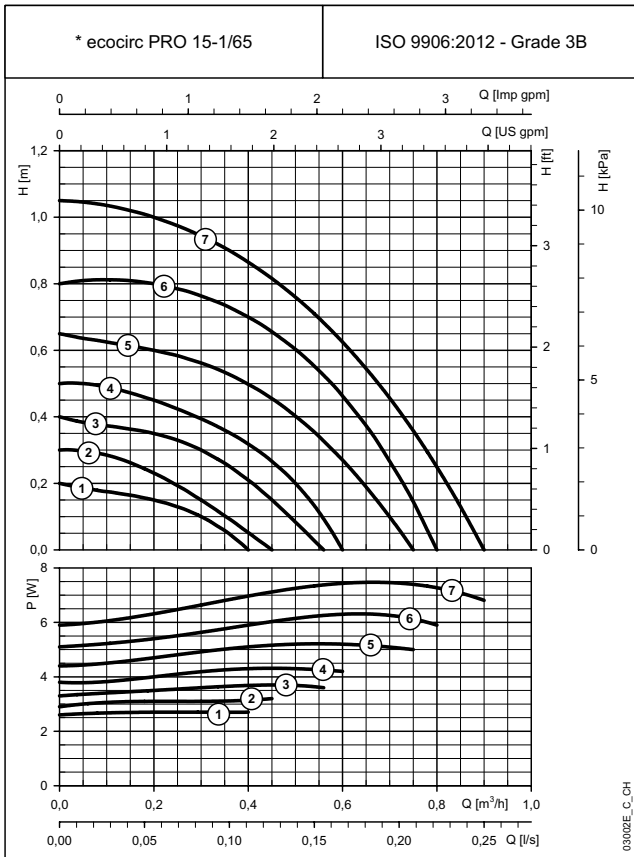
ecocirc-PRO-50-en_e_th

ecocirc® PRO SERIES SINGLE-PHASE OPERATING CHARACTERISTICS



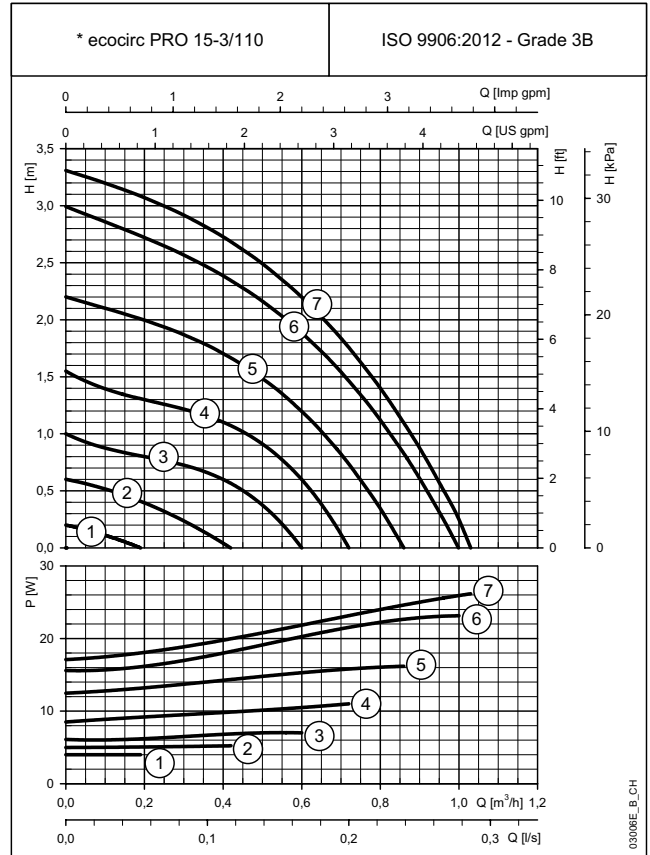
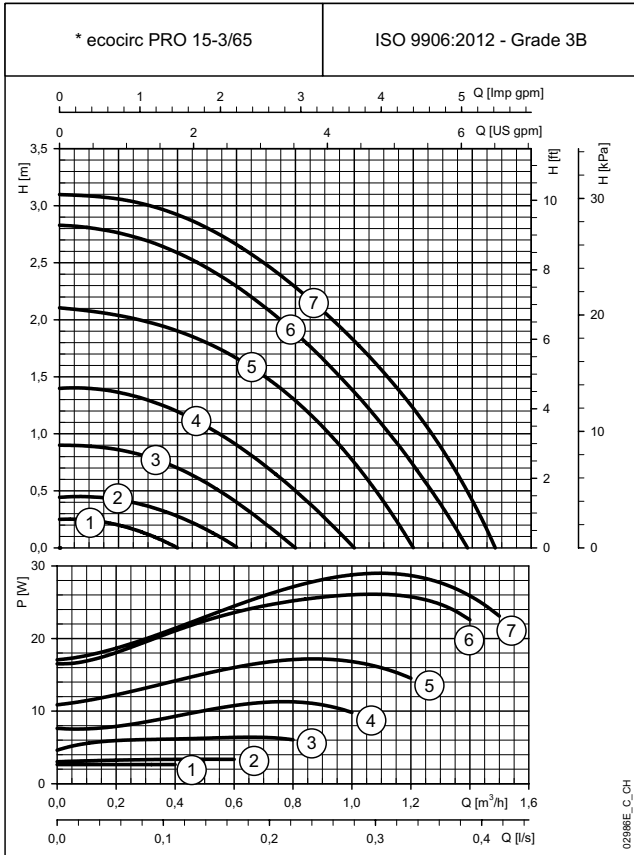
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc® PRO SERIES
SINGLE-PHASE OPERATING CHARACTERISTICS



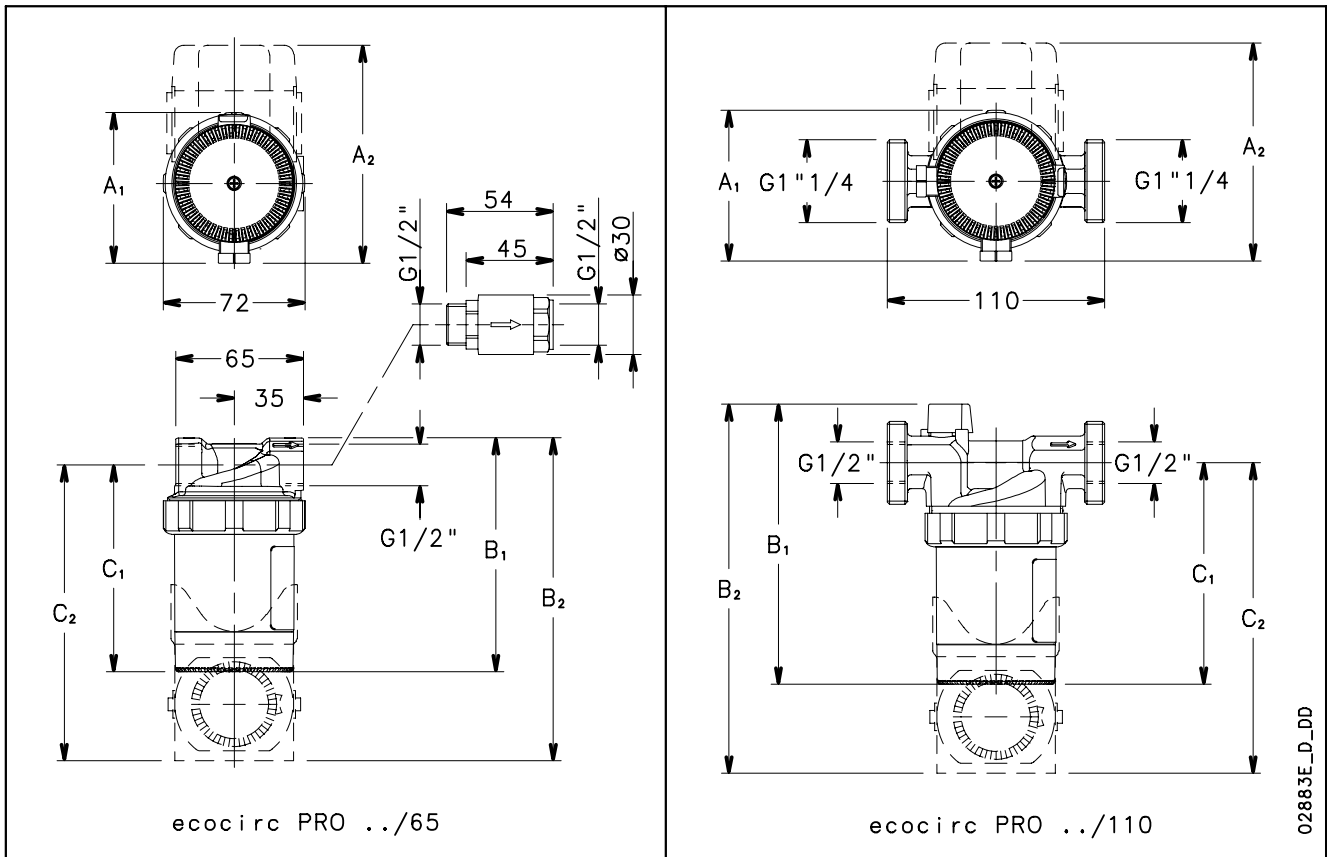
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
* Pump operates steplessly. Lines correspond to knob settings and are for reference only.

ecocirc® PRO SERIES
SINGLE-PHASE OPERATING CHARACTERISTICS



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
* Pump operates steplessly. Lines correspond to knob settings and are for reference only.

ecocirc® PRO SERIES DIMENSIONS AND WEIGHTS



DIMENSIONS AND WEIGHTS TABLE

| PUMP TYPE ecocirc PRO | | DIMENSIONS (mm) | | | | | | DN | PESO kg |
|--------------------------|-----------|-----------------|----------------|----------------|----------------|----------------|----------------|----|------------|
| | | A ₁ | A ₂ | B ₁ | B ₂ | C ₁ | C ₂ | | |
| 15-1/65R | 15-1/65 | 76 | - | 118 | - | 105 | - | 15 | 0,9 |
| 15-1/65RU | 15-1/65U | - | 110 | - | 163 | - | 150 | 15 | 1 |
| 15-1/110R | 15-1/110 | 76 | - | 142 | - | 112 | - | 15 | 1,3 |
| 15-1/110RU | 15-1/110U | - | 110 | - | 187 | - | 157 | 15 | 1,4 |
| | 15-3/65 | 76 | - | 118 | - | 105 | - | 15 | 0,9 |
| | 15-3/110 | 76 | - | 142 | - | 112 | - | 15 | 1,3 |

ecocirc-PRO-2p50-en_d_td

TECHNICAL APPENDIX

VAPOUR PRESSURE
VAPOUR PRESSURE ps AND ρ DENSITY OF WATER TABLE

| t | T | ps | ρ | t | T | ps | ρ | t | T | ps | ρ |
|----|--------|---------|--------------------|-----|--------|---------|--------------------|--------|--------|--------|--------------------|
| °C | K | bar | kg/dm ³ | °C | K | bar | kg/dm ³ | °C | K | bar | kg/dm ³ |
| 0 | 273,15 | 0,00611 | 0,9998 | 55 | 328,15 | 0,15741 | 0,9857 | 120 | 393,15 | 1,9854 | 0,9429 |
| 1 | 274,15 | 0,00657 | 0,9999 | 56 | 329,15 | 0,16511 | 0,9852 | 122 | 395,15 | 2,1145 | 0,9412 |
| 2 | 275,15 | 0,00706 | 0,9999 | 57 | 330,15 | 0,17313 | 0,9846 | 124 | 397,15 | 2,2504 | 0,9396 |
| 3 | 276,15 | 0,00758 | 0,9999 | 58 | 331,15 | 0,18147 | 0,9842 | 126 | 399,15 | 2,3933 | 0,9379 |
| 4 | 277,15 | 0,00813 | 1,0000 | 59 | 332,15 | 0,19016 | 0,9837 | 128 | 401,15 | 2,5435 | 0,9362 |
| 5 | 278,15 | 0,00872 | 1,0000 | 60 | 333,15 | 0,1992 | 0,9832 | 130 | 403,15 | 2,7013 | 0,9346 |
| 6 | 279,15 | 0,00935 | 1,0000 | 61 | 334,15 | 0,2086 | 0,9826 | 132 | 405,15 | 2,867 | 0,9328 |
| 7 | 280,15 | 0,01001 | 0,9999 | 62 | 335,15 | 0,2184 | 0,9821 | 134 | 407,15 | 3,041 | 0,9311 |
| 8 | 281,15 | 0,01072 | 0,9999 | 63 | 336,15 | 0,2286 | 0,9816 | 136 | 409,15 | 3,223 | 0,9294 |
| 9 | 282,15 | 0,01147 | 0,9998 | 64 | 337,15 | 0,2391 | 0,9811 | 138 | 411,15 | 3,414 | 0,9276 |
| 10 | 283,15 | 0,01227 | 0,9997 | 65 | 338,15 | 0,2501 | 0,9805 | 140 | 413,15 | 3,614 | 0,9258 |
| 11 | 284,15 | 0,01312 | 0,9997 | 66 | 339,15 | 0,2615 | 0,9799 | 145 | 418,15 | 4,155 | 0,9214 |
| 12 | 285,15 | 0,01401 | 0,9996 | 67 | 340,15 | 0,2733 | 0,9793 | 155 | 428,15 | 5,433 | 0,9121 |
| 13 | 286,15 | 0,01497 | 0,9994 | 68 | 341,15 | 0,2856 | 0,9788 | 160 | 433,15 | 6,181 | 0,9073 |
| 14 | 287,15 | 0,01597 | 0,9993 | 69 | 342,15 | 0,2984 | 0,9782 | 165 | 438,15 | 7,008 | 0,9024 |
| 15 | 288,15 | 0,01704 | 0,9992 | 70 | 343,15 | 0,3116 | 0,9777 | 170 | 433,15 | 7,920 | 0,8973 |
| 16 | 289,15 | 0,01817 | 0,9990 | 71 | 344,15 | 0,3253 | 0,9770 | 175 | 448,15 | 8,924 | 0,8921 |
| 17 | 290,15 | 0,01936 | 0,9988 | 72 | 345,15 | 0,3396 | 0,9765 | 180 | 453,15 | 10,027 | 0,8869 |
| 18 | 291,15 | 0,02062 | 0,9987 | 73 | 346,15 | 0,3543 | 0,9760 | 185 | 458,15 | 11,233 | 0,8815 |
| 19 | 292,15 | 0,02196 | 0,9985 | 74 | 347,15 | 0,3696 | 0,9753 | 190 | 463,15 | 12,551 | 0,8760 |
| 20 | 293,15 | 0,02337 | 0,9983 | 75 | 348,15 | 0,3855 | 0,9748 | 195 | 468,15 | 13,987 | 0,8704 |
| 21 | 294,15 | 0,24850 | 0,9981 | 76 | 349,15 | 0,4019 | 0,9741 | 200 | 473,15 | 15,550 | 0,8647 |
| 22 | 295,15 | 0,02642 | 0,9978 | 77 | 350,15 | 0,4189 | 0,9735 | 205 | 478,15 | 17,243 | 0,8588 |
| 23 | 296,15 | 0,02808 | 0,9976 | 78 | 351,15 | 0,4365 | 0,9729 | 210 | 483,15 | 19,077 | 0,8528 |
| 24 | 297,15 | 0,02982 | 0,9974 | 79 | 352,15 | 0,4547 | 0,9723 | 215 | 488,15 | 21,060 | 0,8467 |
| 25 | 298,15 | 0,03166 | 0,9971 | 80 | 353,15 | 0,4736 | 0,9716 | 220 | 493,15 | 23,198 | 0,8403 |
| 26 | 299,15 | 0,03360 | 0,9968 | 81 | 354,15 | 0,4931 | 0,9710 | 225 | 498,15 | 25,501 | 0,8339 |
| 27 | 300,15 | 0,03564 | 0,9966 | 82 | 355,15 | 0,5133 | 0,9704 | 230 | 503,15 | 27,976 | 0,8273 |
| 28 | 301,15 | 0,03778 | 0,9963 | 83 | 356,15 | 0,5342 | 0,9697 | 235 | 508,15 | 30,632 | 0,8205 |
| 29 | 302,15 | 0,04004 | 0,9960 | 84 | 357,15 | 0,5557 | 0,9691 | 240 | 513,15 | 33,478 | 0,8136 |
| 30 | 303,15 | 0,04241 | 0,9957 | 85 | 358,15 | 0,5780 | 0,9684 | 245 | 518,15 | 36,523 | 0,8065 |
| 31 | 304,15 | 0,04491 | 0,9954 | 86 | 359,15 | 0,6011 | 0,9678 | 250 | 523,15 | 39,776 | 0,7992 |
| 32 | 305,15 | 0,04753 | 0,9951 | 87 | 360,15 | 0,6249 | 0,9671 | 255 | 528,15 | 43,246 | 0,7916 |
| 33 | 306,15 | 0,05029 | 0,9947 | 88 | 361,15 | 0,6495 | 0,9665 | 260 | 533,15 | 46,943 | 0,7839 |
| 34 | 307,15 | 0,05318 | 0,9944 | 89 | 362,15 | 0,6749 | 0,9658 | 265 | 538,15 | 50,877 | 0,7759 |
| 35 | 308,15 | 0,05622 | 0,9940 | 90 | 363,15 | 0,7011 | 0,9652 | 270 | 543,15 | 55,058 | 0,7678 |
| 36 | 309,15 | 0,05940 | 0,9937 | 91 | 364,15 | 0,7281 | 0,9644 | 275 | 548,15 | 59,496 | 0,7593 |
| 37 | 310,15 | 0,06274 | 0,9933 | 92 | 365,15 | 0,7561 | 0,9638 | 280 | 553,15 | 64,202 | 0,7505 |
| 38 | 311,15 | 0,06624 | 0,9930 | 93 | 366,15 | 0,7849 | 0,9630 | 285 | 558,15 | 69,186 | 0,7415 |
| 39 | 312,15 | 0,06991 | 0,9927 | 94 | 367,15 | 0,8146 | 0,9624 | 290 | 563,15 | 74,461 | 0,7321 |
| 40 | 313,15 | 0,07375 | 0,9923 | 95 | 368,15 | 0,8453 | 0,9616 | 295 | 568,15 | 80,037 | 0,7223 |
| 41 | 314,15 | 0,07777 | 0,9919 | 96 | 369,15 | 0,8769 | 0,9610 | 300 | 573,15 | 85,927 | 0,7122 |
| 42 | 315,15 | 0,08198 | 0,9915 | 97 | 370,15 | 0,9094 | 0,9602 | 305 | 578,15 | 92,144 | 0,7017 |
| 43 | 316,15 | 0,09639 | 0,9911 | 98 | 371,15 | 0,9430 | 0,9596 | 310 | 583,15 | 98,70 | 0,6906 |
| 44 | 317,15 | 0,09100 | 0,9907 | 99 | 372,15 | 0,9776 | 0,9586 | 315 | 588,15 | 105,61 | 0,6791 |
| 45 | 318,15 | 0,09582 | 0,9902 | 100 | 373,15 | 1,0133 | 0,9581 | 320 | 593,15 | 112,89 | 0,6669 |
| 46 | 319,15 | 0,10086 | 0,9898 | 102 | 375,15 | 1,0878 | 0,9567 | 325 | 598,15 | 120,56 | 0,6541 |
| 47 | 320,15 | 0,10612 | 0,9894 | 104 | 377,15 | 1,1668 | 0,9552 | 330 | 603,15 | 128,63 | 0,6404 |
| 48 | 321,15 | 0,11162 | 0,9889 | 106 | 379,15 | 1,2504 | 0,9537 | 340 | 613,15 | 146,05 | 0,6102 |
| 49 | 322,15 | 0,11736 | 0,9884 | 108 | 381,15 | 1,3390 | 0,9522 | 350 | 623,15 | 165,35 | 0,5743 |
| 50 | 323,15 | 0,12335 | 0,9880 | 110 | 383,15 | 1,4327 | 0,9507 | 360 | 633,15 | 186,75 | 0,5275 |
| 51 | 324,15 | 0,12961 | 0,9876 | 112 | 385,15 | 1,5316 | 0,9491 | 370 | 643,15 | 210,54 | 0,4518 |
| 52 | 325,15 | 0,13613 | 0,9871 | 114 | 387,15 | 1,6362 | 0,9476 | 374,15 | 647,30 | 221,20 | 0,3154 |
| 53 | 326,15 | 0,14293 | 0,9862 | 116 | 389,15 | 1,7465 | 0,9460 | | | | |
| 54 | 327,15 | 0,15002 | 0,9862 | 118 | 391,15 | 1,8628 | 0,9445 | | | | |

G-at_npsh_b_sc

FLOW RESISTANCE TABLE OF FLOW RESISTANCE IN BENDS, VALVES AND GATES

The flow resistance is calculated using the equivalent pipeline length method according to the table below:

| ACCESSORY TYPE | DN | | | | | | | | | | | |
|--------------------|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
| | Equivalent pipeline length (m) | | | | | | | | | | | |
| 45° bend | 0,2 | 0,2 | 0,4 | 0,4 | 0,6 | 0,6 | 0,9 | 1,1 | 1,5 | 1,9 | 2,4 | 2,8 |
| 90° bend | 0,4 | 0,6 | 0,9 | 1,1 | 1,3 | 1,5 | 2,1 | 2,6 | 3,0 | 3,9 | 4,7 | 5,8 |
| 90° smooth bend | 0,4 | 0,4 | 0,4 | 0,6 | 0,9 | 1,1 | 1,3 | 1,7 | 1,9 | 2,8 | 3,4 | 3,9 |
| Union tee or cross | 1,1 | 1,3 | 1,7 | 2,1 | 2,6 | 3,2 | 4,3 | 5,3 | 6,4 | 7,5 | 10,7 | 12,8 |
| Gate | - | - | - | 0,2 | 0,2 | 0,2 | 0,4 | 0,4 | 0,6 | 0,9 | 1,1 | 1,3 |
| Non return valve | 1,1 | 1,5 | 1,9 | 2,4 | 3,0 | 3,4 | 4,7 | 5,9 | 7,4 | 9,6 | 11,8 | 13,9 |

G-a-pcv-en_a_th

The table is valid for the Hazen Williams coefficient $C=100$ (cast iron pipework);

for steel pipework, multiply the values by 1,41;

for stainless steel, copper and coated cast iron pipework, multiply the values by 1,85;

When the **equivalent pipeline length** has been determined, the flow resistance is obtained from the table of flow resistance.

The values given are guideline values which are bound to vary slightly according to the model, especially for gate valves and non-return valves, for which it is a good idea to check the values supplied by manufacturers.

VOLUMETRIC CAPACITY

| Litres per minute l/min | Cubic metres per hour m ³ /h | Cubic feet per hour ft ³ /h | Cubic feet per minute ft ³ /min | Imp. gal. per minute Imp. gal./min | US gal. per minute Us gal./min |
|-------------------------------|---|--|--|--|--------------------------------------|
| 1,000 | 0,0600 | 2,1189 | 0,0353 | 0,2200 | 0,2642 |
| 16,6667 | 1,000 | 35,3147 | 0,5886 | 3,6662 | 4,4029 |
| 0,4719 | 0,0283 | 1,000 | 0,0167 | 0,1038 | 0,1247 |
| 28,3168 | 1,6990 | 60,0000 | 1,000 | 6,2288 | 7,4805 |
| 4,5461 | 0,2728 | 9,6326 | 0,1605 | 1,000 | 1,2009 |
| 3,7854 | 0,2271 | 8,0208 | 0,1337 | 0,8327 | 1,000 |

PRESSURE AND HEAD

| Newton per square metre N/m ² | kilo Pascal kPa | bar bar | Pound force per square inch psi | metre of water m H ₂ O | millimetre of mercury mm Hg |
|--|--------------------|----------------------|---------------------------------------|---|-----------------------------------|
| 1,000 | 0,0010 | 1 x 10 ⁻⁵ | 1.45 x 10 ⁻⁴ | 1.02 x 10 ⁻⁴ | 0,0075 |
| 1000,0000 | 1,000 | 0,0100 | 0,1450 | 0,1020 | 7,5006 |
| 1 x 10 ⁵ | 100,0000 | 1,000 | 14,5038 | 10,1972 | 750,0638 |
| 6894,7570 | 6,8948 | 0,0689 | 1,000 | 0,7031 | 51,7151 |
| 9806,6500 | 9,8067 | 0,0981 | 1,4223 | 1,000 | 73,5561 |
| 133,3220 | 0,1333 | 0,0013 | 0,0193 | 0,0136 | 1,000 |

LENGTH

| millimetre mm | centimetre cm | metre m | inch in | foot ft | yard yd |
|------------------|------------------|--------------|--------------|--------------|--------------|
| 1,000 | 0,1000 | 0,0010 | 0,0394 | 0,0033 | 0,0011 |
| 10,0000 | 1,000 | 0,0100 | 0,3937 | 0,0328 | 0,0109 |
| 1000,0000 | 100,0000 | 1,000 | 39,3701 | 3,2808 | 1,0936 |
| 25,4000 | 2,5400 | 0,0254 | 1,000 | 0,0833 | 0,0278 |
| 304,8000 | 30,4800 | 0,3048 | 12,0000 | 1,000 | 0,3333 |
| 914,4000 | 91,4400 | 0,9144 | 36,0000 | 3,0000 | 1,000 |

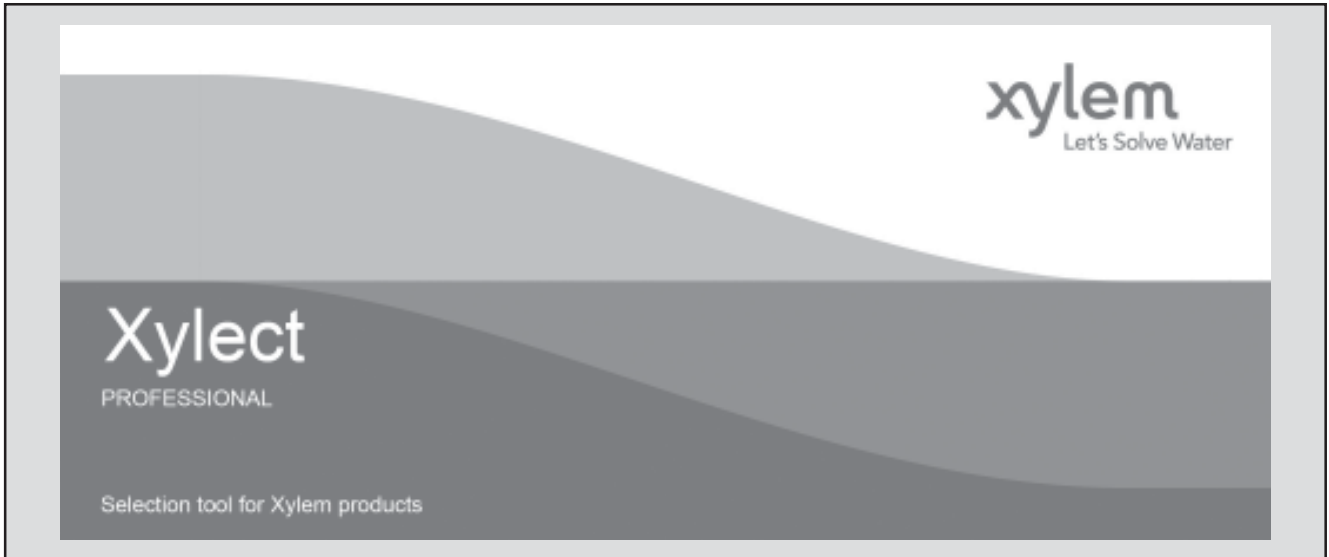
VOLUME

| cubic metre m ³ | litre litro | millilitre ml | imp. Gallon imp. gal. | US gallon US gal. | cubic foot ft ³ |
|-------------------------------|----------------|---------------------|--------------------------|--------------------------|-------------------------------|
| 1,000 | 1000,0000 | 1 x 10 ⁶ | 219,9694 | 264,1720 | 35,3147 |
| 0,0010 | 1,000 | 1000,0000 | 0,2200 | 0,2642 | 0,0353 |
| 1 x 10 ⁻⁶ | 0,0010 | 1,000 | 2.2 x 10 ⁻⁴ | 2.642 x 10 ⁻⁴ | 3.53 x 10 ⁻⁵ |
| 0,0045 | 4,5461 | 4546,0870 | 1,000 | 1,2009 | 0,1605 |
| 0,0038 | 3,7854 | 3785,4120 | 0,8327 | 1,000 | 0,1337 |
| 0,0283 | 28,3168 | 28316,8466 | 6,2288 | 7,4805 | 1,000 |

G-at_pp-en_a_sc

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



Xylect™ is pump solution selection software with an extensive online database of product information across the entire Lowara, and Vogel range of pumps and related products, with multiple search options and helpful project management facilities. The system holds up-to-date product information on thousands of products and accessories.

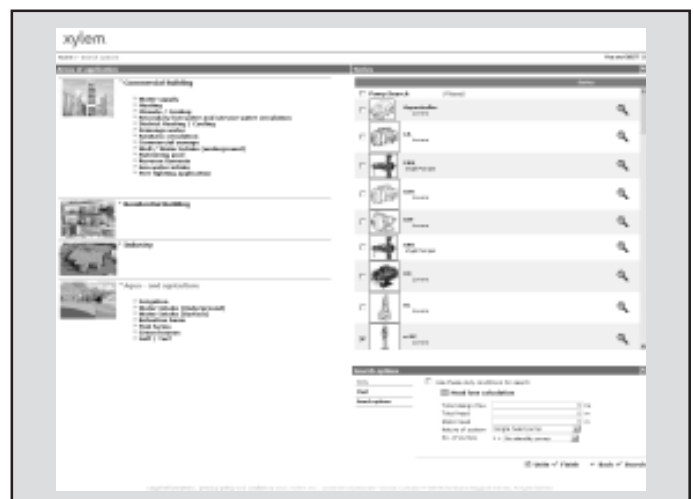
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara and Vogel products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect™ gives a detailed output:

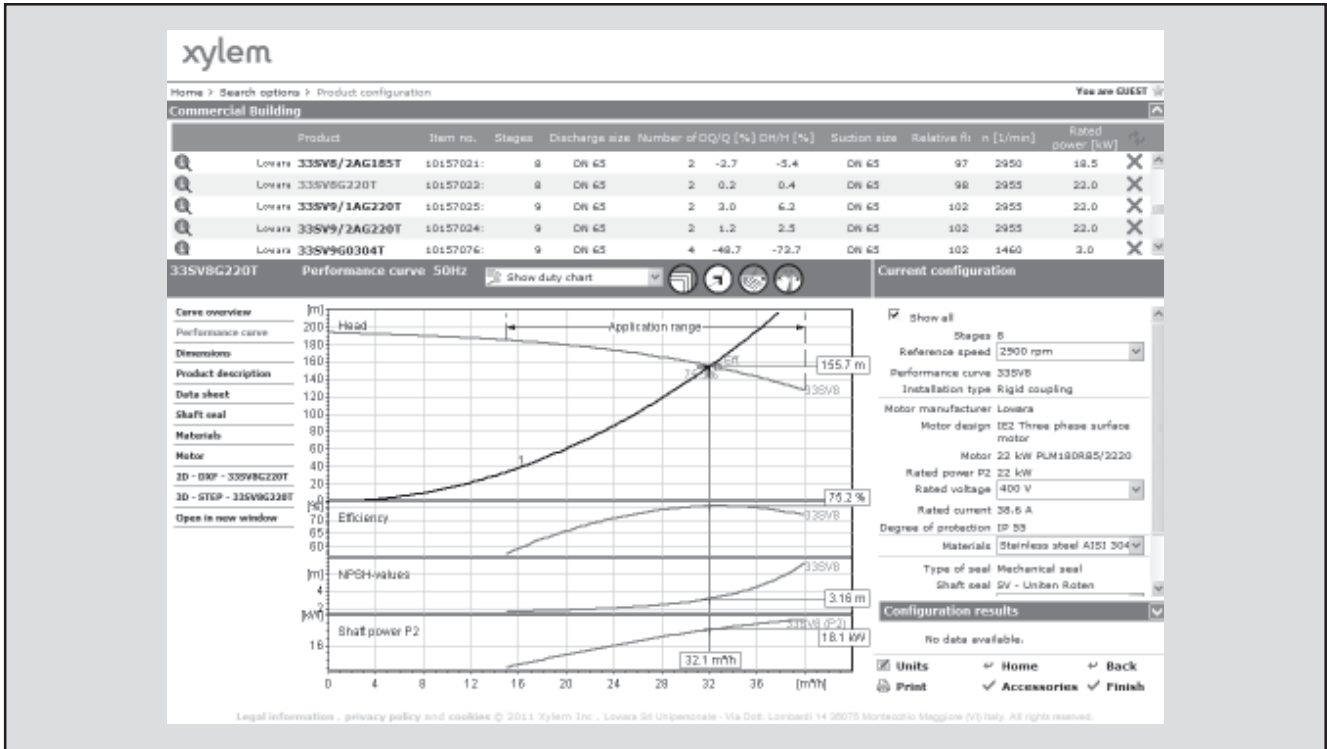
- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



The search by application guides users not familiar with the product range to the right choice.

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



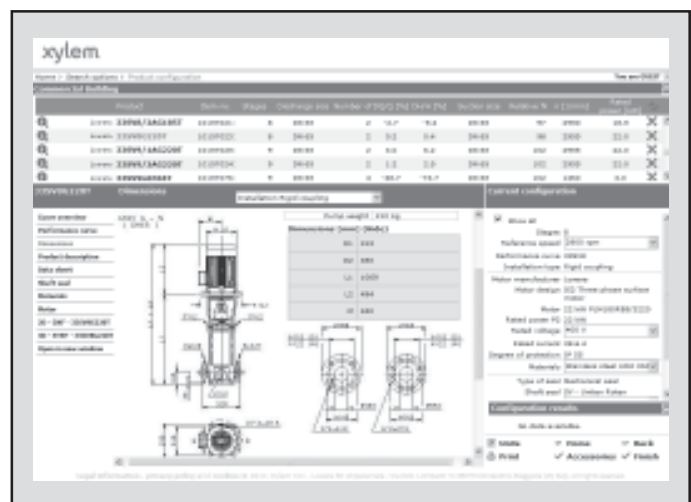
The detailed output makes it easy to select the optimal pump from the given alternatives.

The best way to work with Xylect™ is to create a personal account. This makes it possible to:

- Set own standard units
- Create and save projects
- Share projects with other Xylect™ users

Every user have a My Xylect space, where all projects are saved.

For more information about Xylect™ please contact our sales network or visit www.xylect.com.



Dimensional drawings appear on the screen and can be downloaded in dxf format.

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're approximately 12,700 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to xylem.com.



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