# LET'S FOCUS ON PURE EFFICIENCY. DROP THE BELLS AND WHISTLES.

**ErP ready 2015**

Tomorrow's high efficiency ready now: the new Lowara Ecocirc® are compliant with the ErP-Directive for 2015

# Lowara Ecocirc®

## THE REVOLUTIONARY HIGHLY EFFICIENT CIRCULATORS FOR DOMESTIC HEATING WITH THE SIMPLE AND SHAFTLESS SPHERICAL MOTOR DESIGN

LOWARA
a xylem brand

# Affordable efficiency!

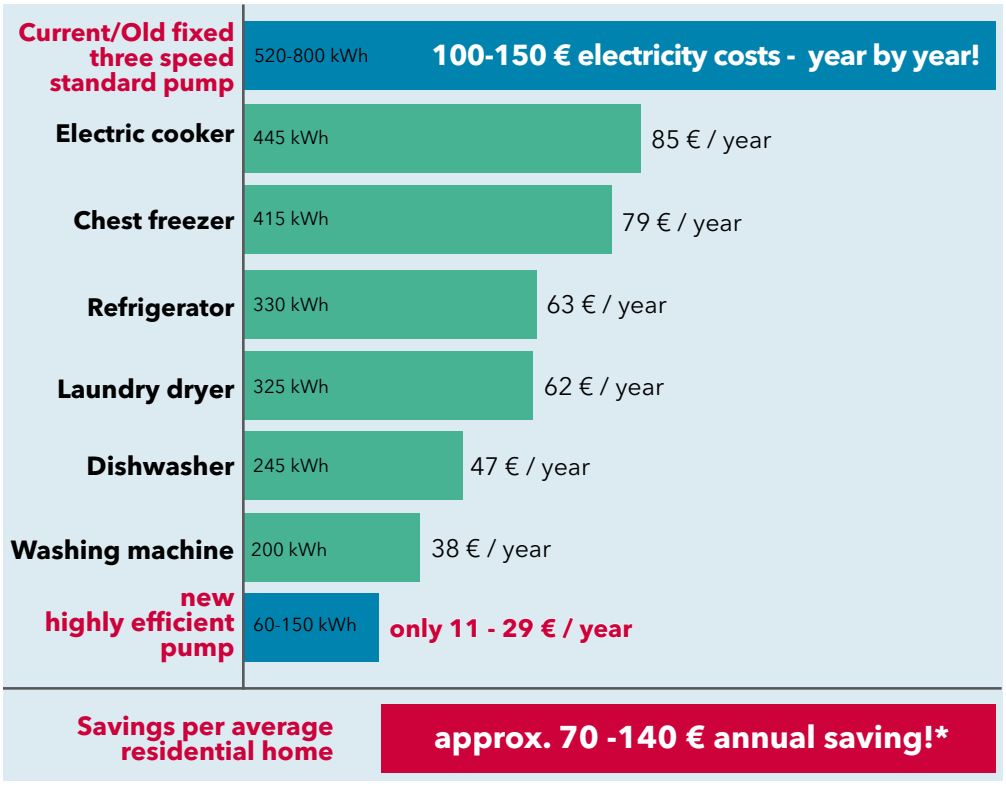
Approximately 10 to 15 percent of the electricity consumption of an average household is caused by domestic heating circulators. The overwhelming majority of these consist of fixed three speed standard circulators. The EU's new Eco-Design Directive, the ErP-Directive EC 641/2009 is starting 1st January 2013. The purpose is to reduce the energy consumption significantly. Again in 2015 these strict requirements will be tightened further.

To date there was only the choice of purchasing an inexpensive inefficient standard circulator with high energy consumption, or selecting a modern high efficiency pump which was quite costly but very energy saving. The new Lowara Ecocirc® made by Xylem strikes the balance between these two options: a modern, electronically controlled high efficiency pump, which pays for itself within a short period of installation.

## The high efficiency technology was reduced to the essentials by the simple spherical motor design. No compromise in high efficiency, and a clear focus on what a high efficiency pump should do best: pump efficiently! No more, no less!

A clear focus on a smart cost and performance ratio without any additional costly features. Concentrating on the basics, on reliable high efficiency and a maximum in profitability and payback. These essentials are the reason why we call this pump the Ecocirc® . This already complies with the ErP directive of 2015. High efficient circulators have not been a new market to us: since 2009 we are one of Europe's leading high efficiency circulator manufacturers, home to high efficiency comes as standard.

# The unknown electricity consumer becomes a highly efficient saving miracle!




# A clear message to all plumbers and installers!

Domestic heating circulators have seen a dramatic technology leap in the last years.

The new high efficiency pump Lowara Ecocirc® made by Xylem saves up to 90% electricity costs compared to old standard heating circulators.

Depending on the exact purchasing and installation costs, the new Ecocirc® pays for itself normally within 2-3 years - good news for the home owner.

The clear message to all plumbers and installers: it does pay back to replace every old circulator, even if it's still working. In every household, on every construction site. Great potential for additional sales! Fit one on your current or next job.

This would mean incremental sales for wholesale and craftsmen and savings for the homeowner. That's focusing on the essentials. That's the Lowara Ecocirc® .

* Every household and every heating habit differ. The facts above are based on a standard one family home with 3 inhabitants in Germany, electricity costs of 20 Cent / kWh, all according to the independent testing institute „Stiftung Warentest" published 9/2007, page 76ff.

# How can efficiency even work harder?

## The answer is as simple as the spherical motor design!

The very best ideas are always the simple ones. Impressively simple, that's the shaftless spherical motor design. It requires only one single bearing, which is even self re-aligning but does not require any shaft at all. That significantly reduces the number of costly and complicated precision parts. In detail this results in many technical advantages and benefits. But the most important benefit is: Combining the simple spherical motor design with the modern ECM high efficiency technology results in quick payback times - and therefore affordable efficiency.

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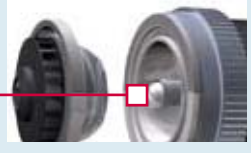
**Improved hydraulics - improved efficiency**
The very latest computer simulations have further optimised the pump housing and the impeller. The cast iron pump housing is cataphoresis coated completely and is therefore resistant to corrosion.

NEW

# Blockage-free even under the very hardest conditions: the revolutionary and patented Anti-Block-Technology!

### The spherical rotor

The permanent magnet rotor/impeller-unit is the only moving part. Spherical motor pumps are shaftless, and therefore whisper quiet over the whole lifetime. In case of an indicated rotor blocking, emergency software shakes and vibrates the rotor to avoid further blocking.



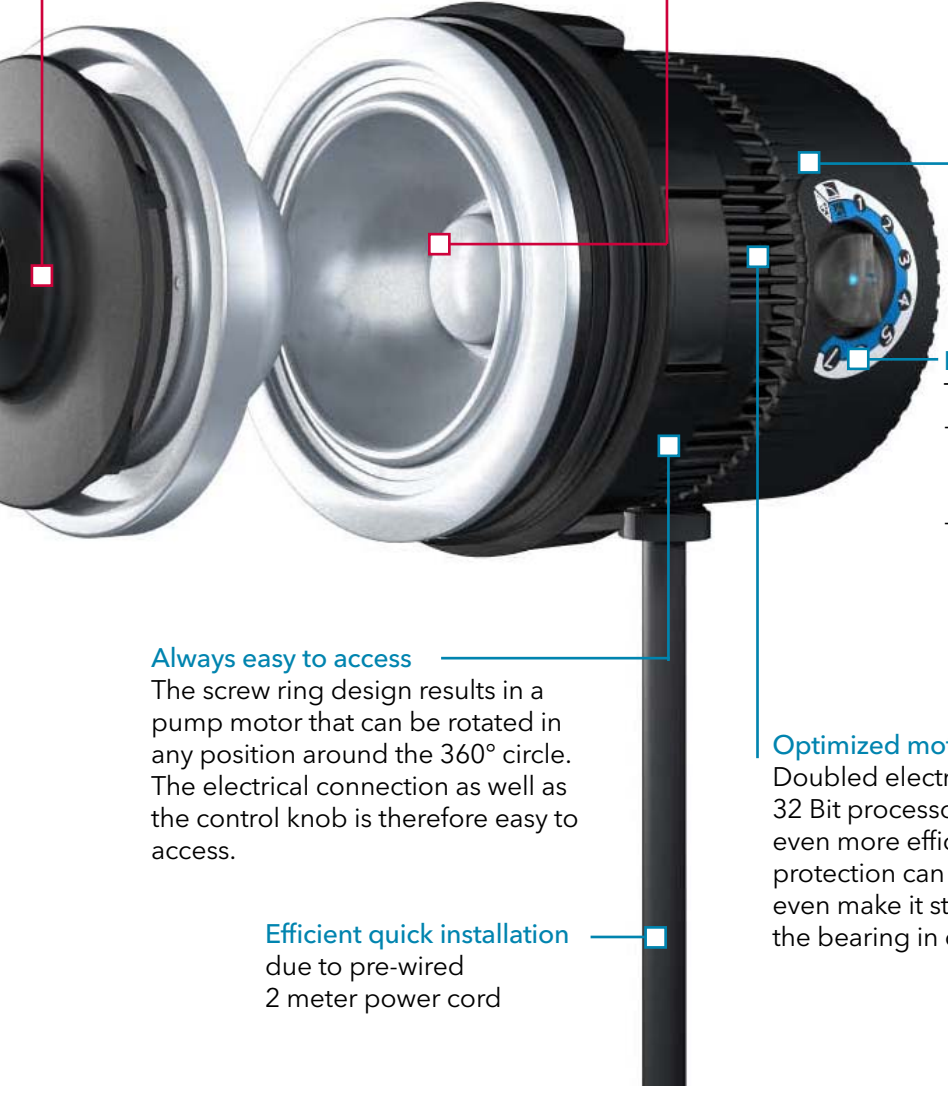
The evolutionary Anti-Block-Technology is visible the best also with the position of the ceramic bearing ball: in former versions it was quite visible from outside, today it sits inside in the centre of the rotor.

### The new design is separating the magnetic chamber from the flow

Magnetite and Sludge, which are both found in the pumped liquid and are both magnetic, this can accumulate at the permanent magnetic parts of a high efficiency pump , and therefore block and damage it. Our new Anti-Block-Technology separates the main flow of the pumped media completely from the permanent magnetic parts, Blocking up even in very old, open systems is impossible by our pump design.

The main flow of the pumped media (blue) and its magnetite and sludge particles (red) flows outside the influence area of the permanent magnet rotor (bottom).

The side flow of the wet running circulators, which is required for lubrication and cooling of the bearing, is separated from the main flow with its magnetite and sludge.



**Automatic air purge**
Quick automatic air-venting-mode for a safe operation.

Easy to control
Two in one control:
- Step-less manually control with constant speed, displayed by a white LED, or alternatively
- Automatic differential pressure, displayed by a blue LED.

Always easy to access
The screw ring design results in a pump motor that can be rotated in any position around the 360° circle. The electrical connection as well as the control knob is therefore easy to access.

Optimized motor technology
Doubled electric windings combined with the latest 32 Bit processor technology - that also makes the Ecocirc® even more efficient. The integrated over-temperature protection can automatically reduce the speed of the pump or even make it stop and start again to protect the electronics and the bearing in case of dry run situations.

Efficient quick installation
due to pre-wired
2 meter power cord

# Product range

**Highly efficient circulators for domestic heating Lowara Ecocirc®**

High efficiency pumps with ECM-technology and permanent magnet rotor for applications like radiant heating (one- and two pipe systems), underfloor and surface heating, boiler feed, solar stations and similar applications; Efficiency ErP ready 2015; shaftless, maintenance-free spherical motor, magnetite resistant Anti-Block-Technology, switchable control options (step-less manually or automatic variable differential pressure), cataphoresis coated cast iron pump housing, LED operation indicator, pre-wired 2 meter power cord;

| Model | Part No. | Version | Pump housing length (mm) | Connec-tion | for union fittings | EEI | Control options | Magne-tite re-sistance | Pump housing |
|---|---|---|---|---|---|---|---|---|---|
| Ecocirc 25-4/180 | 60500 8300 | 4 meter | 180 | G 1 1/2'' | 1'' | ≤ 0,21 | *switchable*<br>- step-less manually<br>*or*<br>- automatic variable differential pressure | Anti-Block-Techno-logy | cata-phoresis coated cast iron |
| Ecocirc 32-4/180 | 60500 8400 | | | G 2'' | 1 1/4'' | ≤ 0,21 | | | |
| Ecocirc 15-4/130 | 60500 8000 | | 130 | G 1'' | 1/2'' | ≤ 0,22 | | | |
| Ecocirc 20-4/130 | 60500 8100 | | | G 1 1/4'' | 3/4'' | ≤ 0,21 | | | |
| Ecocirc 25-4/130 | 60500 8200 | | | G 1 1/2'' | 1'' | ≤ 0,21 | | | |
| Ecocirc 25-6/180 | 60500 8350 | 6 meter | 180 | G 1 1/2'' | 1'' | ≤ 0,23 | *switchable*<br>- step-less manually<br>*or*<br>- automatic variable differential pressure | Anti-Block-Techno-logy | cata-phoresis coated cast iron |
| Ecocirc 32-6/180 | 60500 8450 | | | G 2'' | 1 1/4'' | ≤ 0,23 | | | |
| Ecocirc 15-6/130 | 60500 8050 | | 130 | G 1'' | 1/2'' | ≤ 0,26* | | | |
| Ecocirc 20-6/130 | 60500 8150 | | | G 1 1/4'' | 3/4'' | ≤ 0,23 | | | |
| Ecocirc 25-6/130 | 60500 8250 | | | G 1 1/2'' | 1'' | ≤ 0,23 | | | |

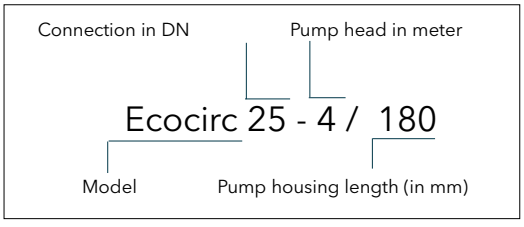
*ErP ready 2013

## Technical Data

| | |
|---|---|
| Motor design | Electronically commutated, shaftless sphercial motor design with permanent magnetic rotor |
| Max. system pressure | 10 bar |
| Electric connection | 200 – 240 Volt, 50 / 60 Hertz |
| Power consumption | Models Ecocirc xx-4: 4 - 23 Watt<br>Models Ecocirc xx-6: 4 - 42 Watt |
| Accepted liquids | Heating water VDI 2035<br>Water/Glycol mixtures* |
| Magnetite resistence | Anti-Block-Technology |
| Accepted temperature range | -10 °C** to +110° C |
| Energy efficiency | ErP 2015 ready |
| Motor protection class | IP 44 |
| Insulation class | F |

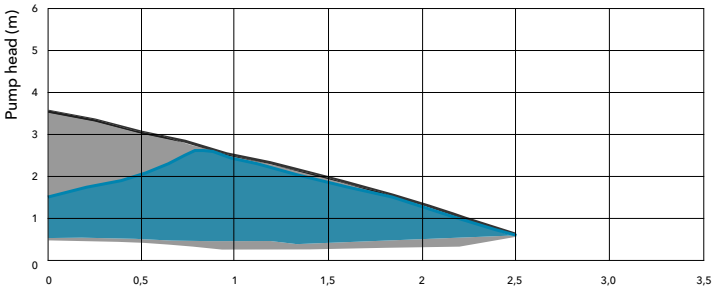
* check hydraulic performance with more than 20 % glycol
**non-freezing

## Model designation

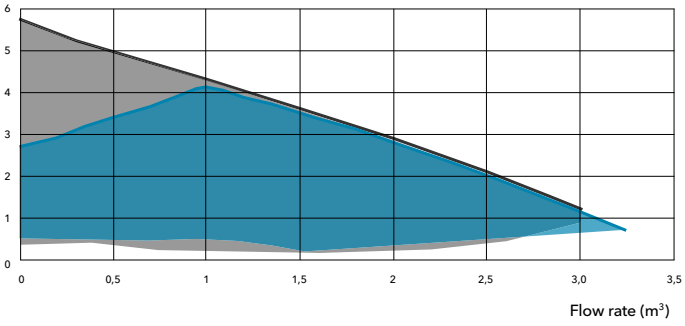


# Pump curves

Ecocirc xx-4



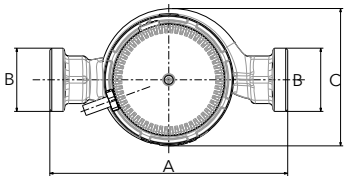

Ecocirc xx-6

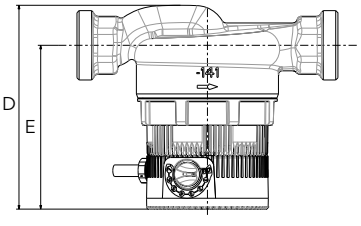



step-less manually constant speed (white LED)

automatic variable differential pressure (blue LED)

# Dimensions




| Models | A in mm | B in inch | C in mm | D in mm | E in mm |
|---|---|---|---|---|---|
| 25-xx/180 | 180 | G 1 1/2 | 104 | 141 | 113 |
| 32-xx/180 | 180 | G 2 | 104 | 141 | 113 |
| 15-xx/130 | 130 | G 1 | 104 | 141 | 113 |
| 20-xx/130 | 130 | G 1 1/4 | 104 | 141 | 113 |
| 25-xx/130 | 130 | G 1 1/2 | 104 | 141 | 113 |

# Replacement guide

| housing length | Version | Lowara | | Third-party manufacturer Grundfos | |
|---|---|---|---|---|---|
| | | New | Highly efficient motor | Standard motor | Highly efficient motor |
| 180 | 4m | Ecocirc 25-4/180 | EA, EA+, EV, or EV+...25-4/180 | UPS, UPE, Alpha or Alpha+ ...25-40 | Alpha pro, Alpha 2 or Alpha 2L ...25-40 |
| | | Ecocirc 32-4/180 | EA, EA+, EV, or EV+...32-4/180 | UPS, UPE, Alpha or Alpha+ ...32-40 | Alpha pro, Alpha 2 or Alpha 2L ...32-40 |
| | 6m | Ecocirc 25-6/180 | EA, EA+, EV, or EV+...25-6/180 | UPS, UPE, Alpha or Alpha+ ...25-60 | Alpha pro, Alpha 2 or Alpha 2L ...25-60 |
| | | Ecocirc 32-6/180 | EA, EA+, EV, or EV+...32-6/180 | UPS, UPE, Alpha or Alpha+ ...32-60 | Alpha pro, Alpha 2 or Alpha 2L ...32-60 |
| 130 | 4m | Ecocirc 15-4/130 | EA, EA+, EV, or EV+...15-4/130 | UPS, UPE, Alpha or Alpha+ ...25-40/130 | Alpha pro, Alpha 2 or Alpha 2L ...15-40 130 |
| | | Ecocirc 25-4/130 | EA, EA+, EV, or EV+...25-4/130 | UPS, UPE, Alpha or Alpha+ ...25-40/130 | Alpha pro, Alpha 2 or Alpha 2L ...25-40 130 |
| | | Ecocirc 20-4/130 | EA, EA+, EV, or EV+...20-4/130 | UPS 20-40/130 | - |
| | 6m | Ecocirc 15-6/130 | EA, EA+, EV, or EV+...15-6/130 | UPS, UPE, Alpha or Alpha+ ...15-60/130 | Alpha pro, Alpha 2 or Alpha 2L ...15-40 130 |
| | | Ecocirc 25-6/130 | EA, EA+, EV, or EV+...25-6/130 | UPS, UPE, Alpha or Alpha+ ...25-60/130 | Alpha pro, Alpha 2 or Alpha 2L ...25-60 130 |
| | | Ecocirc 20-6/130 | EA, EA+, EV, or EV+...20-6/130 | UPS 20-60/130 | - |

| housing length | Version | Lowara | | Third-party manufacturer Wilo | |
|---|---|---|---|---|---|
| | | New | Highly efficient motor | Standard motor | Highly efficient motor |
| 180 | 4m | Ecocirc 25-4/180 | EA, EA+, EV, or EV+...25-4/180 | Star RS, Star E ...25/4 | Stratos Eco, Pico, Yonos ...25/1-4 |
| | | Ecocirc 32-4/180 | EA, EA+, EV, or EV+...32-4/180 | Star RS, Star E ...30/4 | Stratos Eco, Pico, Yonos ...30/1-4 |
| | 6m | Ecocirc 25-6/180 | EA, EA+, EV, or EV+...25-6/180 | Star RS, Star E ...25/6 | Stratos Eco, Pico, Yonos ...25/1-6 |
| | | Ecocirc 32-6/180 | EA, EA+, EV, or EV+...32-6/180 | Star RS, Star E ...30/6 | Stratos Eco, Pico, Yonos ...30/1-6 |
| 130 | 4m | Ecocirc 15-4/130 | EA, EA+, EV, or EV+...15-4/130 | Star RS, Star E ...15/4-130 | |
| | | Ecocirc 25-4/130 | EA, EA+, EV, or EV+...25-4/130 | Star RS, Star E ...25/4-130 | Stratos Eco, Pico, Yonos ...25/1-4-130 |
| | 6m | Ecocirc 15-6/130 | EA, EA+, EV, or EV+...15-6/130 | Star RS, Star E ...15/6-130 | |
| | | Ecocirc 25-6/130 | EA, EA+, EV, or EV+...25-6/130 | Star RS, Star E ...25/6-130 | Stratos Eco, Pico, Yonos ...25/1-6-130 |

And even more:
visit our replacement guide
online at www.lowara.com

**Xylem |zīləm|**

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

We're 12,500 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 www.xyleminc.com

xylem
Let's Solve Water

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