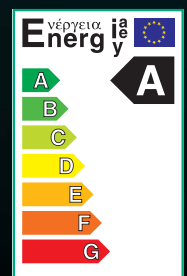




Pumpen Intelligenz.

Commercial High Efficiency Circulators WILO Stratos

Product Brochure.



High-efficiency circulators: WILO Stratos
The world's first high-efficiency circulator!

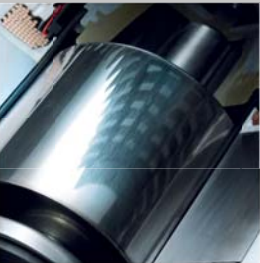
High-efficiency circulators: WILO Stratos
*Up to 80% energy savings!**
*Compared to a standard commercial wet rotor circulator

Efficient

Flexible



Impeller with three-dimensional curved blades and a smooth surface lowers friction loss. Higher efficiency in the hydraulic, partial-load range.



Slotted tube made of synthetic composite carbon-fibre prevents eddy-current loss. Higher motor efficiency results in lower operating costs



The smaller rotor is designed for speeds ranging beyond 4,000 RPM. This has reduced the size and weight of the motor housing, permitting easier handling with the same power.

Twice the efficiency thanks to ECM Technology
 Energy is a valuable commodity. For this reason, the WILO Stratos was introduced to the European market as the world's first high-efficiency circulator in 2001. With the help of ECM technology, this efficient, functional and flexible pump for heating, cooling, and air conditioning reduces annual power consumption by up to 80%. Standing for Electronic Commutated Motor, ECM essentially comprises a synchronous motor with a permanent magnet rotor. The unique slotted tube made of synthetic composite carbon-fibre avoids eddy-current losses, thus considerably increasing overall efficiency.

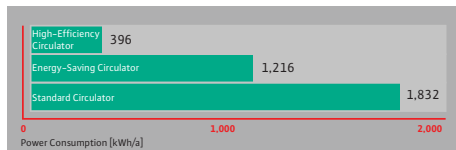
WILO Stratos The Reference for energy class A
 Europe's leading manufacturers of heating pumps have agreed on universal designations for energy consumption levels. These energy labels are already familiar to consumers in the case of refrigerators and other household appliances. Energy efficiency classes A to G are used to categorize circulator consumption data in a clear and logical manner. Energy efficiency class A is the one assigned to the WILO Stratos. In 2001, the WILO Stratos had already accomplished this quantum leap to become the world's first high-efficiency circulator, thus defining the reference class for the new energy label.

Up to 80% energy savings!*

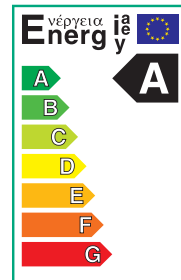
*Compared to a standard commercial wet rotor circulator



Annual power consumption (kWh/a) of various heating circulators (1 1/4") with a cutback function.*



* Load profile with 5,500 operating hours annually:
 0.2% (1.10 hours) at 100% Qn (full load)
 25% (1,375 hours) at 65% Qn (partial load)
 40% (2,200 hours) at 30% Qn (low load)
 33% (1,815 hours) in cutback mode



Easy to install.

The Reliable and quiet operation of the WILO Stratos circulator makes it ideal for use in large residential buildings, apartment blocks, housing developments, commercial real-estate complexes, hospitals, schools, as well as industrial and institutional buildings. The WILO Stratos also offers unique advantages in terms of quick and reliable installation.



LON Module



LED Display

No condensate – All possible applications

Conventional, electronically controlled wet-running circulators are only suitable for heating. However, there is increasing market demand for circulators as part of cooling water systems for air conditioning and industrial refrigeration. The WILO Stratos is the first electronically controlled wet-rotor circulator to meet all these requirements. Conventional models pose the following problem: During operation with cooling water, condensate forms inside the electronic module, possibly resulting in pump failure. In contrast, the WILO Stratos is designed to avoid a formation of condensate in sensitive areas. This has resulted in the world's first high-efficiency circulator suitable for heating as well as for air conditioning and refrigeration.

Simple to operate.

The proven "red button" makes the WILO Stratos very simple and comfortable to operate. All essential functions of the WILO Stratos can be controlled by means of this one button. The WILO Stratos circulator's front-mounted display shows all important operational data for technicians to read whenever necessary. The WILO IR-monitor can be used to operate the WILO Stratos by remote control and read its data from up to 30 feet away.

Ideal for professional building management.

The WILO Stratos offers the right functionality for every requirement. In addition to issuing standard collective error messages, the WILO Stratos can be optionally connected to local operating networks (LON). Furthermore, additional IF (interface) modules with integrated dual-pump management as well as 0-10V DC capabilities can be retrofitted. With these additions, the WILO Stratos fulfills all requirements for professional building management.



Suitable for temperatures ranging from -10°C (14°F)...



... to 110°C (243°F) Universal applications as part of heating, air conditioning and refrigeration systems.



IR Module

The IR-monitor is ideal for optimizing the circulator's operational parameters. Using the Windows Mobile® platform and PDA device, it possible to retrieve load diagrams, operating hours, logs, and many other items.

WILO Stratos

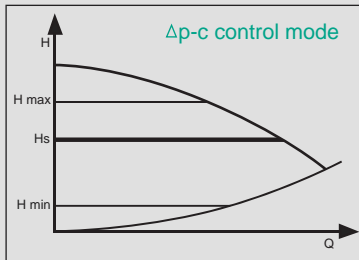
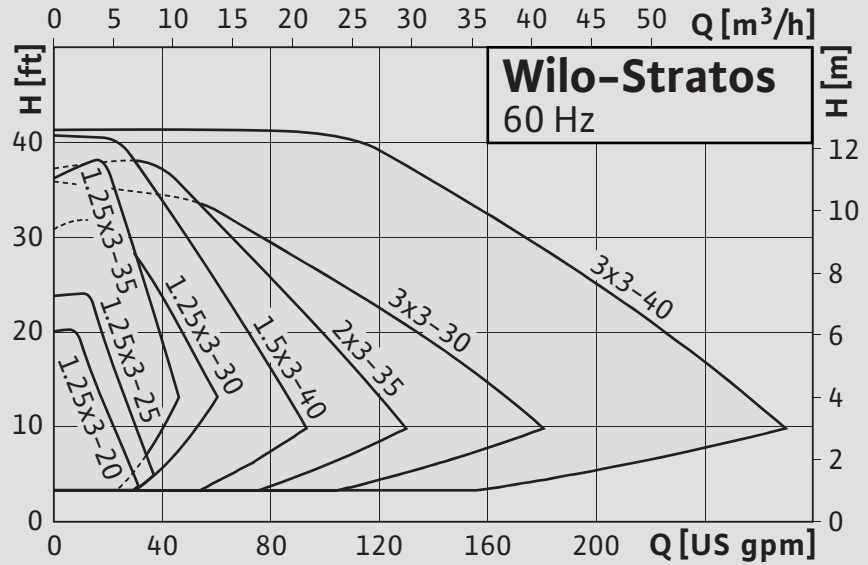
Commercial High-Efficiency Circulators

WILO Stratos



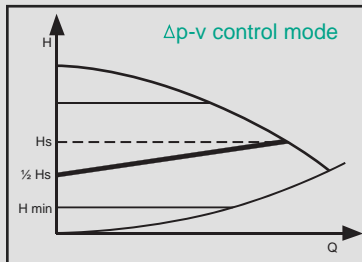
**Up to 80%
Energy Savings!***

* Compared to an uncontrolled circulator.



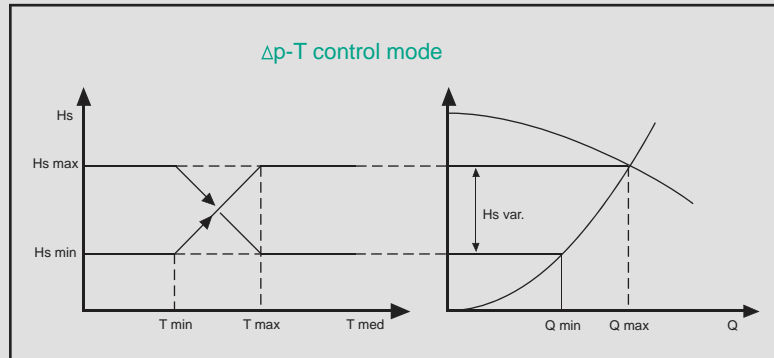
Δp-c control mode

In this control mode the electronic control will maintain the pump-generated head over the permissible flow rate range constant at the preset differential pressure setpoint level H_s.



Δp-v control mode

In this control mode the electronic control will vary the pump-generated head linearly between H_s and ½ H_s. The differential pressure setpoint level H varies with flow rate Q.



In this control mode (programmable only with the aid of the IR-Monitor) the electronic control will vary the setpoint level of the pump generated head depending on the measured fluid temperature. This control mode can be applied in conjunction with constant-volume (e.g. one-pipe) systems and variable-flow systems with modulating flow temperature control. The Δp-T control mode supports the condensing boiler technology, provided the pump is installed in the return pipe of the heating system. In addition, with optional Interface Modules the operational setpoints (head or RPM) can be adjusted externally from a 0 – 10V DC signal or a LONworks signal from a BMS system.

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