

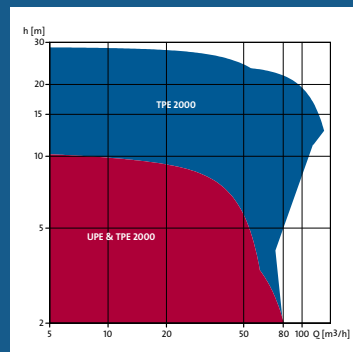
## FULL LINE SUPPLIER

Countless pumps are used around the world every day. In many sectors Grundfos is a full line supplier – including heating and air-conditioning.

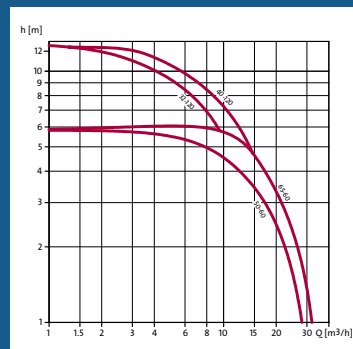
The Series 2000 covers an extensive range of circulator pumps for heat distribution. All pumps, although differing in appearance and output, have the same characteristics and regulation interface. These pumps are electronically controlled and their operation will therefore be optimised according to the equipment on which they are used and specific needs. Energy saving – Comfort and the Environment are the keywords for this group of products.

GRUNDFOS MAGNA belongs to this unique group. There are currently four basic sizes, all of which can be supplied in bronze versions and as twin-head pumps.

The pumps are single-phased, 230 Volt, 50 Hz.  
Maximum power consumption: 325 – 450 W.



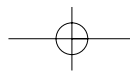
Products and performance within Series 2000



Output of the four GRUNDFOS MAGNA pumps

## GRUNDFOS MAGNA THE NEW UPE





## INTRODUCING MAGNETIC POWER

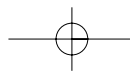
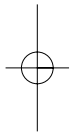
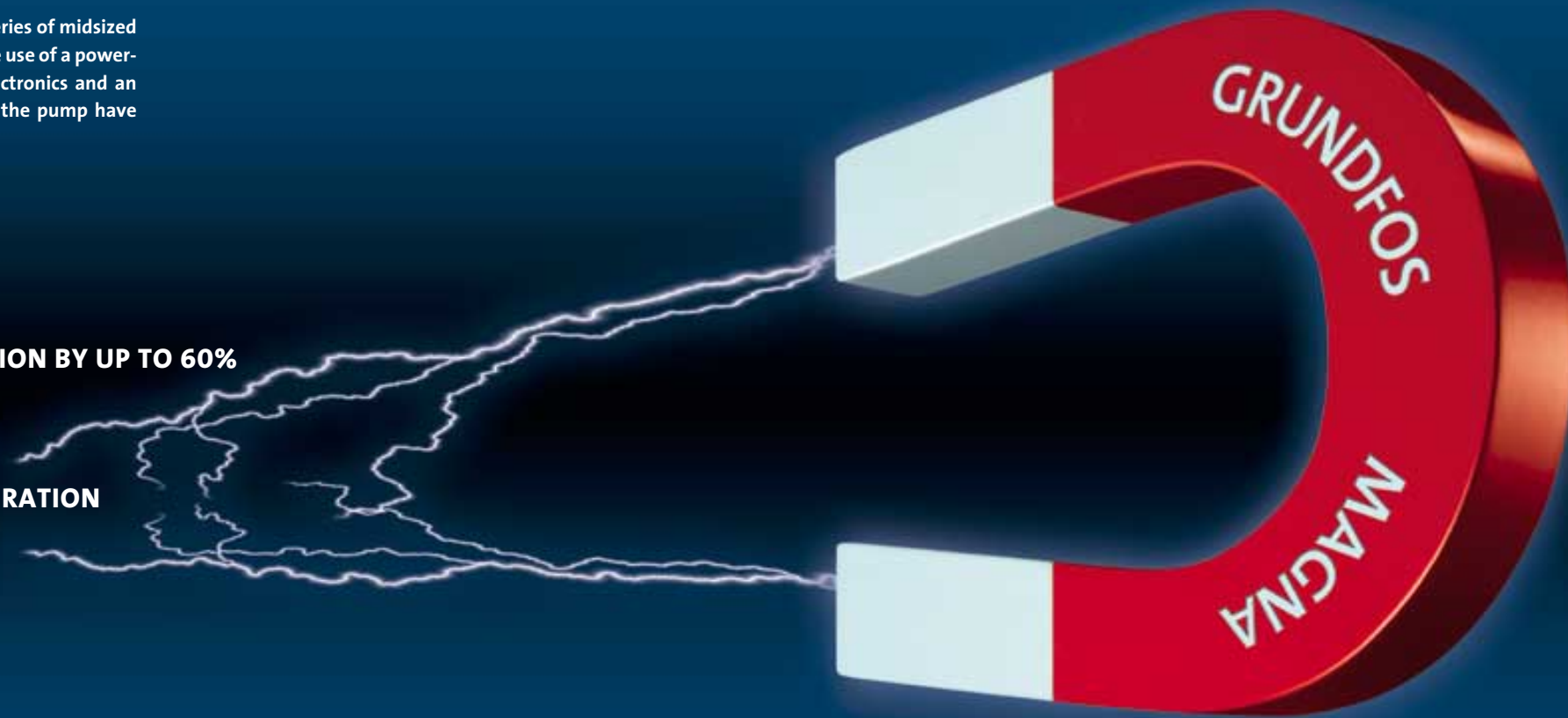
The GRUNDFOS MAGNA is the first in a brand new series of midsized UPE circulator pumps for heating systems. Innovative use of a power-saving permanent magnet motor, sophisticated electronics and an ongoing search for ways to optimise all aspects of the pump have combined to bring about the MAGNA revolution.

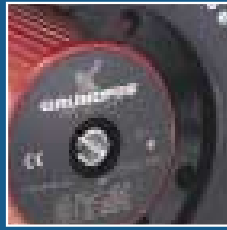
**P** REDUCED POWER CONSUMPTION BY UP TO 60%

**I** EASY INSTALLATION AND OPERATION

**R** THE MOST RELIABLE PUMP

**C** ADVANCED NETWORK COMMUNICATION





## REDUCED POWER CONSUMPTION



GRUNDFOS MAGNA uses up to 60% less energy than previous pumps. The permanent magnet motor increases motor efficiency dramatically. Energy to drive the motor is drawn from magnets in the rotor and not only from the mains.

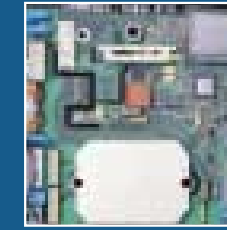
The MAGNA operates at optimal efficiency at any output. Integrated sensors monitor conditions in the system and a frequency converter then regulates motor speed accordingly so only the minimum power necessary is used. The MAGNA also meets the new international requirements regarding impact on the electric network.



## FAST INSTALLATION – SIMPLE OPERATION



To facilitate installation, Grundfos has developed a unique terminal box. Details like a clip holding the cover and the fact that there are no loose parts or screws to keep tabs on, ease installation. After installation, the pump automatically finds the correct settings. GRUNDFOS MAGNA's operating panel is designed in close co-operation with the users. Whether in manual or AUTO mode, the panel clearly indicates flow rate and the pumps current operating level in relation to its maximum capacity.



## THE RELIABLE PUMP



Reliable operation is of the highest priority. Drawing the stainless-steel canned rotor in one piece is a guarantee that liquid will never leak into the stator. The GRUNDFOS MAGNA is lubricated by the circulating water. Thus no lubricants are changed and the risk that the bearings will run dry is eliminated.

The overall reliability of the electronics is significantly improved. Built-in electronic motor protection safeguards GRUNDFOS MAGNA against power surges or other faults in the mains.

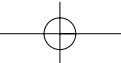


## NETWORK COMMUNICATION



GRUNDFOS MAGNA is designed to function in communication networks. The pumps have the option of two-way communication modules compatible with LON and Grundfos' own GENI BUS. These modules are integrated directly into the new terminal box using clip-in modules. No external installation is required.

In systems without network communications, GRUNDFOS MAGNA can be accessed both manually or via an infrared remote control.



## OUR CUSTOMERS SHOW US THE WAY

GRUNDFOS MAGNA is a product of the close contact we have with the people who use our products. We have systematized this contact in such a way that feedback from our many customer groups finds its way directly back to our developers.

To this end, development groups such as the User Focus Design team have been formed. The expressed aim of the software designers, industrial designers

and anthropologists on the team is to obtain, process and apply the practical experience users have of our pumps.

Intensive work was spent finding the most user-friendly operating panel for GRUNDFOS MAGNA. This was an important early phase in the design of the pump. The tests and interviews in the field formed the basis for the panel's subsequent development.



## PERMANENT MAGNET MOTOR

Grundfos proudly presents a notable world "first"! We are the first company in the world to utilise permanent magnet motor technology to improve our pumps. First invented many years ago, we have now further developed the principle behind the permanent magnet motor to bring the technology right into the 21st century. Our own research centre and factories played a leading role in the development process.



Permanent magnet technology revolutionizes circulator pumps

Advanced electronics, full-performance software and modern production methods will ensure the motor a long life and highly efficient service. By combining this technology with Grundfos' quality pumps, we have achieved an entirely new standard within circulator pumps. Innovative production methods such as magnet production under high pressure, laser welding and a unique magnetisation process have produced the desired results. GRUNDFOS MAGNA uses up to 60% less energy than previous pumps, benefiting both the user's business finances – and the environment.



Intelligent power module controls the new GRUNDFOS MAGNA

