

DEMAND MORE CONTROL OF YOUR BUILDING

MAGNA3

We offer a complete range of MAGNA3 pumps with unrivalled efficiency, intelligent technology to match your every need and the well-known Grundfos reliability based on 65 years of experience.

The full Grundfos product range covers all building application areas:

- Pressure boosting
- Heating
- Cooling
- Ground source energy, GSHP
- District energy
- Water disinfection
- Wastewater handling
- Rainwater harvesting
- Fire fighting

For more information, visit:
grundfos.us/magna3



The Magna3 combines unrivalled efficiency and a wide range of intelligent features that make it more than a pump. Magna3 is the natural choice for anyone looking to create high performance building systems

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GRUNDFOS 

be
think
innovate

GRUNDFOS 



COMMERCIAL BUILDINGS CONSUME **19%** OF OUR ENERGY. PUMPS CONSUME **12%** OF THAT ENERGY IN TYPICAL HVAC APPLICATIONS ALONE.

It's time to DEMAND MORE

What can you do NOW to reduce energy consumption while improving indoor comfort for your customers?

Energy savings

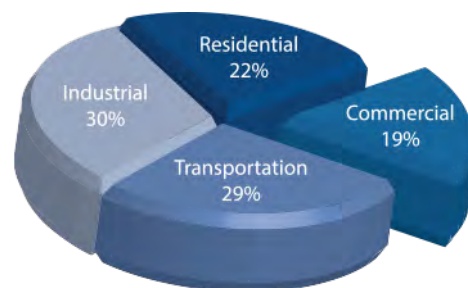
An innovative, ground breaking variable speed pump that monitors system needs and "learns" the building energy usage to optimize performance is here now.

Tougher standards

Future building designs will require a substantial improvement in building energy performance. What can you do differently to meet that requirement?

Doing our part

Grundfos thinking about tomorrow



End-use Total Consumption
2012 DOE, Building Energy Data Book

CONCERN Put sustainability first
CARE Be there for a growing world
CREATE Pioneer new technologies

MORE THAN A PUMP

IF YOU ARE LOOKING FOR THE LOWEST ENERGY CONSUMPTION IN THE MARKET COMBINED WITH HIGH INTELLIGENCE AND FULL RANGE, LOOK NO FURTHER. THE MAGNA3 IS HERE

Reliable innovation

The MAGNA3 is based on the tried and tested MAGNA technology and our industry-leading experience with electronic pumps. The permanent magnet motor, AUTOADAPT function and integrated frequency converter is still part of the MAGNA package, but we've added some additional, groundbreaking new technologies. The result is a cutting-edge piece of intelligent technology that retains the unrivalled Grundfos reliability.

FULL RANGE

– perfect fit and low life cycle costs

MINIMIZE ENERGY COSTS

– best efficiency in the market

HIGH INTELLIGENCE

– reduce investment costs and gain complete control of your system

PROVEN RELIABILITY

– based on 40 years of experience and 1 million test hours

EASY INSTALLATION AND START-UP

– save time and effort



BUILDING CERTIFICATION AND RATING SYSTEMS ARE EXPANDING



Commercial Building Rating Systems

- LEED
- Building EQ
- Energy Star
- Green Globes



Building rating and certification systems are different than codes

These are applied at the request of the owner. There are many different building rating systems: LEED, Energy Star, Green Globes, Building EQ, and BREEAM. Each of these rating systems have their own criteria and design requirements but have one thing in common –

they encourage more energy conscious and sustainably focused design. The energy codes define a minimum requirement for building energy-efficient designs, while the building rating systems encourage building owners to exceed these minimums and invest better design.

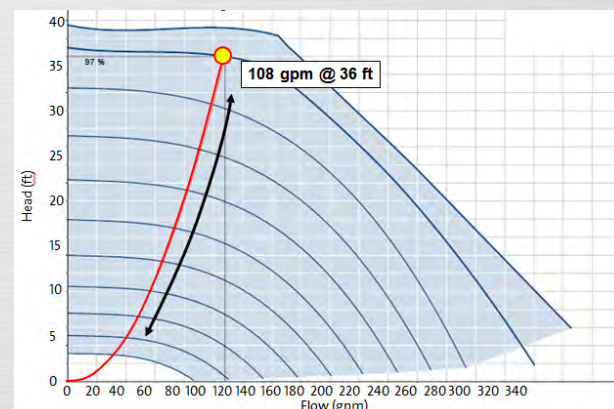


SAVING ENERGY

Full range means perfect fit

The extended MAGNA3 range with maximum heads of 60ft and maximum flows of 550 GPM features more than 25 single and twin pumps in cast iron or stainless steel. This means that it is much easier to right-size the MAGNA3 for any duty point and cut both purchase and energy costs in the process.

VS/VV Pump curve



OPPORTUNITIES WITH MAGNA3

Pumps have been applied the same way for decades, which is to satisfy the peak load requirements. In most cases, this doesn't meet the changing load requirements of the building.

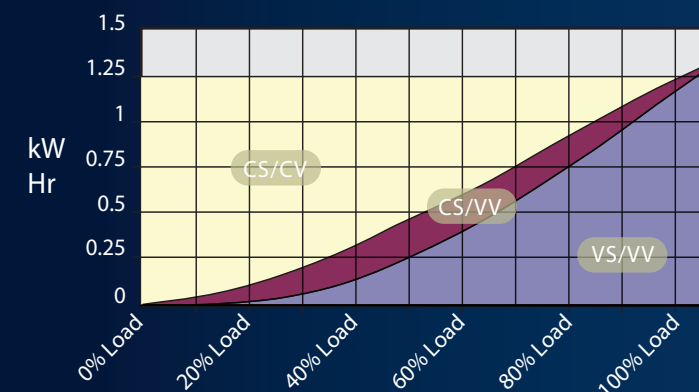
Grundfos MAGNA3 is the leader in advanced technology and control strategies which make it simple to meet building energy demands, while savings as much as 80% with all MAGNA3 control modes.

More than a pump:

The MAGNA3 has a built in energy meter and a flow limiting function which makes up for a pump throttling valve.

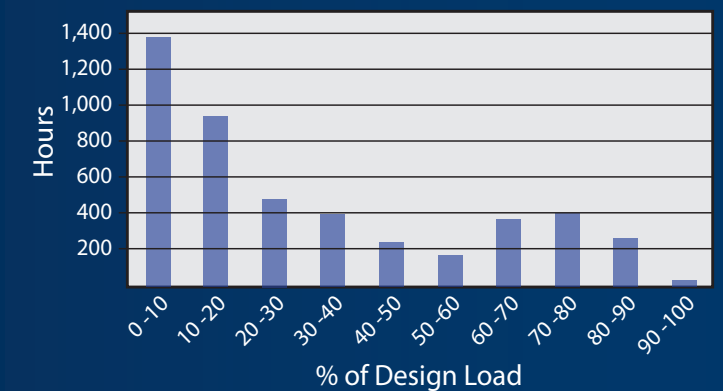


Pump Energy Consumption



VS/VV (Variable Speed, Variable Volume) saves energy, even at reduced loads, when compared to CS/VV (Constant Speed, Variable Volume). These savings are greatly enhanced when compared to the traditional CS/CV (Constant Speed, Constant Volume) systems.

Cooling Load Profile



The chart reflects how many cooling systems operate the majority of the time at significantly reduced loads. When these systems are operated in a VS/CV or VS/VV manner, maximum energy savings are possible.

MAGNA is always improving

Grundfos continues to set the pace for circulator pumps and is the obvious choice if you are looking for the most energy-efficient solution and fastest return on investment.

To achieve the ground-breaking MAGNA3 energy efficiency, we have further optimized pump hydraulics and incorporated our patented differential pressure sensor, while switching to a composite rotor can and a compact stator that minimizes losses in the motor.

The result is a highly efficient and future-proof circulator exceeding even future energy standards.

ELIMINATE COSTLY EQUIPMENT & INSTALLATION

You Eliminate:

- Flow Meter
- Pressure gauge
- Temperature Gauge
- Throttling Valve
- ConstantSpeed Pump
- BTU Meter



Eliminate all of this...

...with this.



INTRODUCING: YOUR PERFECT CONTROL MODE

Intelligent control saves time and energy

The MAGNA3 gives you the full range of control mode options you would expect from a state-of-the-art circulator pump. But the intelligent modes – AUTOADAPT and FLOWADAPT – set MAGNA3 apart from the competition. Furthermore, the FLOWLIMIT and Automatic Night Setback control functions are applicable with all MAGNA3 control modes.



IMPROVED BUILDING PERFORMANCE

Built in Heat Energy Meter provides Complete Control

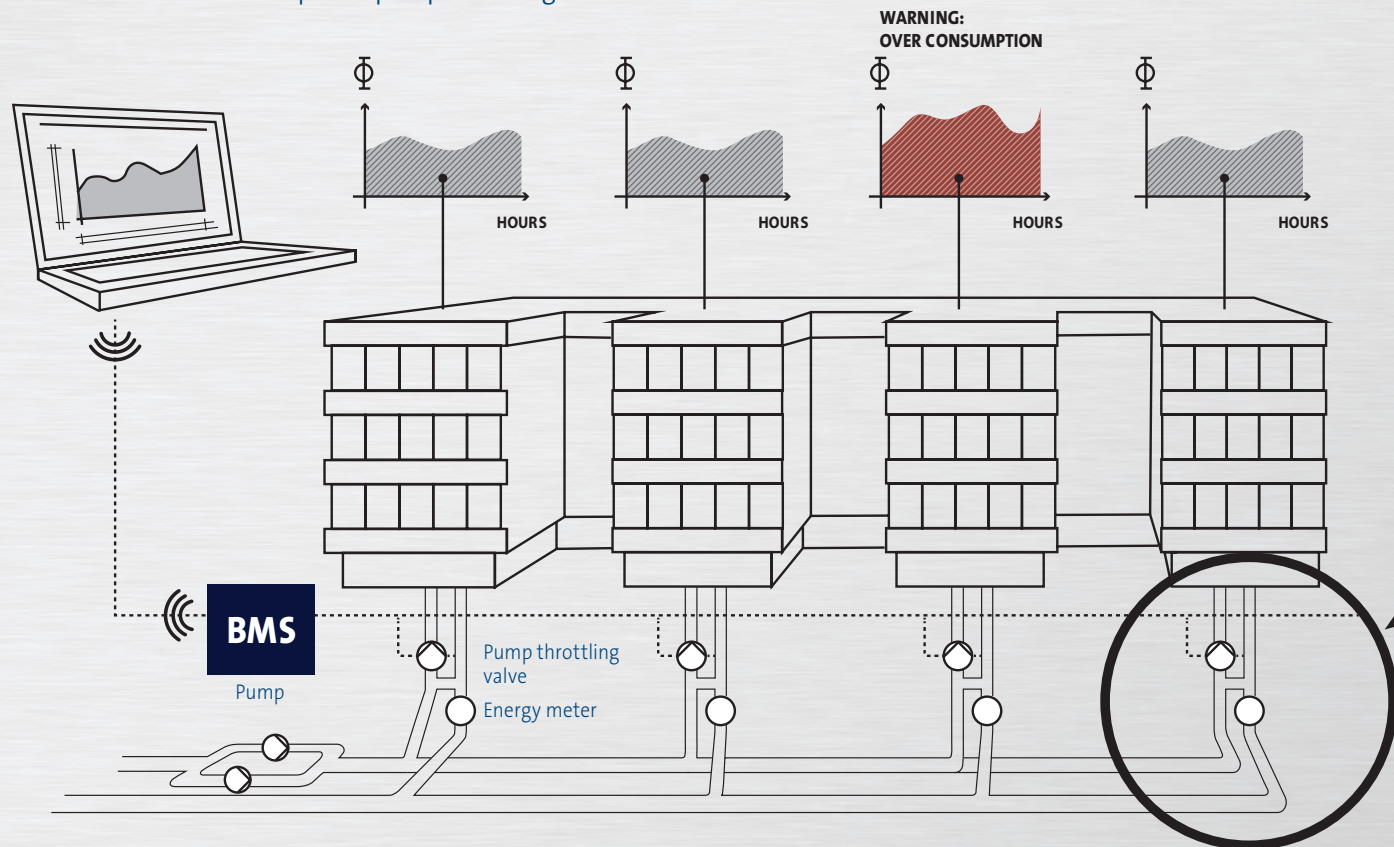
- Measure current energy consumption, flow rate and much more
- Avoid cost of installing separate heat energy meter in the system
- Automatic link (optional feature) to BMS provides a quick overview of the system
- Applicable in all heating and cooling applications as well as ground source heat pump and solar applications

An all in one solution

- Optimized pump hydraulics
- Embedded differential pressure & temperature sensor
- Simple BMS integration
- Composite rotor
- Optimized user interface
- Compact stator

More than a pump:

The MAGNA3 has a built in energy meter and a flow limiting function which makes up for a pump throttling valve.



GOOD BYE THROTTLING VALVES

The new FLOWLIMIT function and FLOWADAPT control mode eliminate the need for a pump throttling valve and thereby reduce the pressure loss.

This improves the overall performance of the system and reduces the initial costs. To meet system flow limitations, the pump will adjust its performance to the actual load, which effectively cuts overall system energy consumption.

INTEGRATED SENSOR

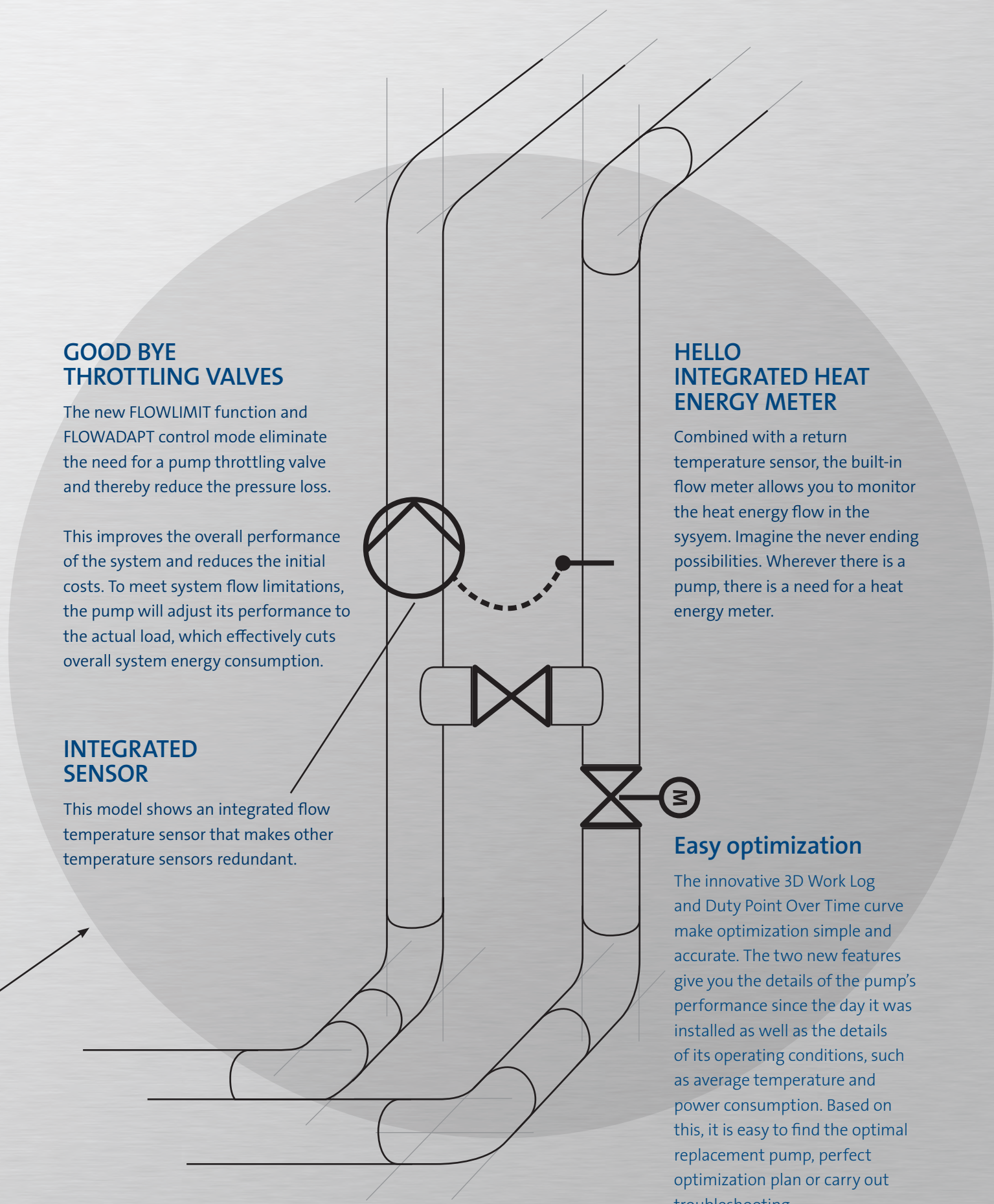
This model shows an integrated flow temperature sensor that makes other temperature sensors redundant.

HELLO INTEGRATED HEAT ENERGY METER

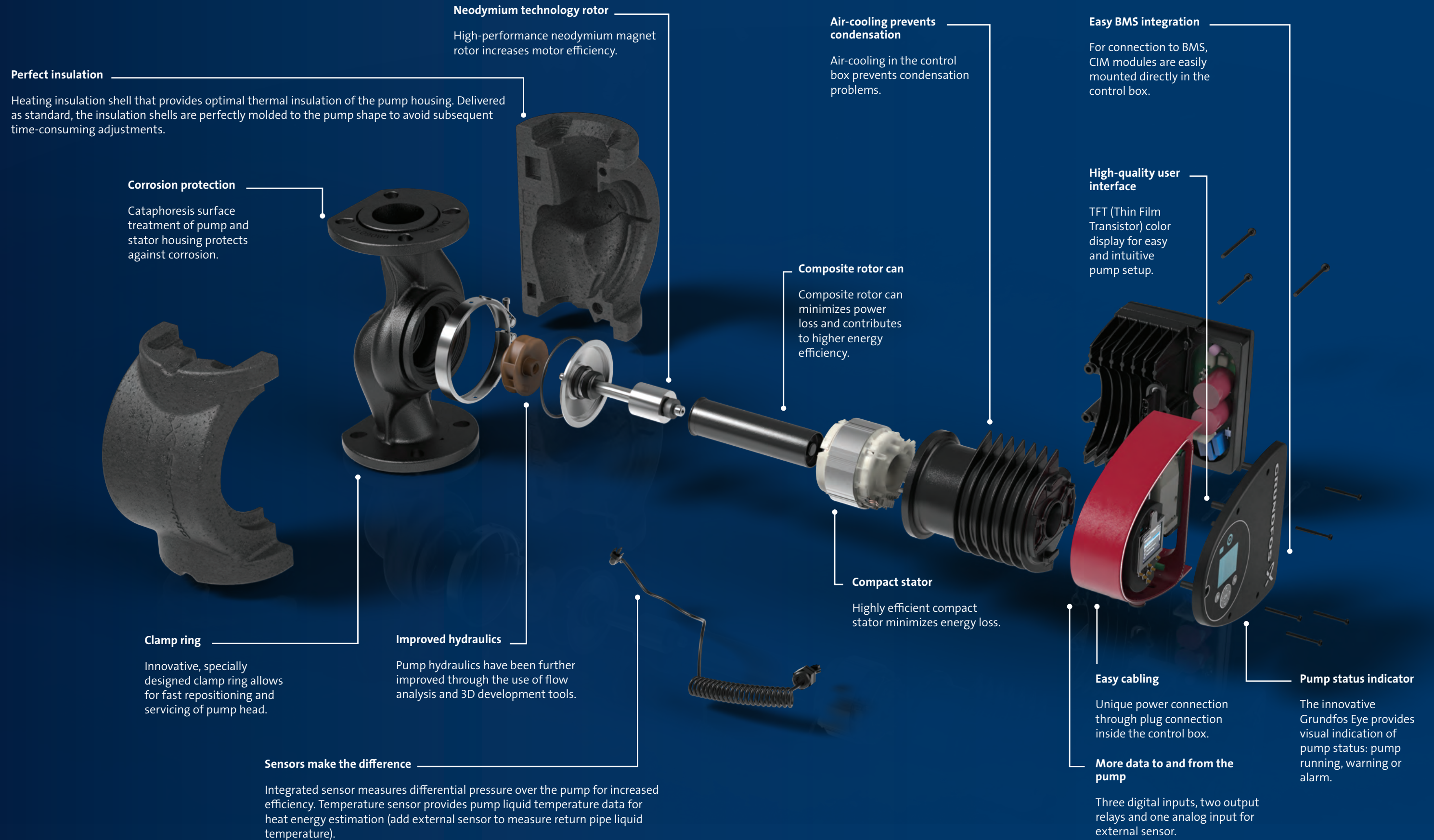
Combined with a return temperature sensor, the built-in flow meter allows you to monitor the heat energy flow in the system. Imagine the never ending possibilities. Wherever there is a pump, there is a need for a heat energy meter.

Easy optimization

The innovative 3D Work Log and Duty Point Over Time curve make optimization simple and accurate. The two new features give you the details of the pump's performance since the day it was installed as well as the details of its operating conditions, such as average temperature and power consumption. Based on this, it is easy to find the optimal replacement pump, perfect optimization plan or carry out troubleshooting.



TAKE A CLOSER LOOK



FEATURES & BENEFITS OF MAGNA3

- LOWEST POWER CONSUMPTION IN THE MARKET – MINIMIZE ENERGY COSTS
- HIGHEST SYSTEM INTELLIGENCE – MINIMIZE INVESTMENT COSTS AND GAIN SOPHISTICATED CONTROL OF YOUR SYSTEM
- PROVEN RELIABILITY– BASED ON 40 YEARS OF EXPERIENCE AND 1 MILLION TEST HOURS
- GRUNDFOS EYE (RUNNING, STOP, WARNING OR ALARM)
- TFT (THIN FILM TRANSISTOR) INTERFACE FOR CONTROLLING AND INFO OF THE PUMP
- SELECTION BUTTONS WITH TACTILE FEEDBACK

SUITABLE FOR:

- > HEATING
- > COOLING
- > RESIDENTIAL HOT WATER
- > GROUND SOURCE HEAT PUMP SYSTEMS



THESE EXCEPTIONAL INSTALLATION & OPERATIONAL SAVINGS ARE AVAILABLE DUE TO:

System Control Efficiency

- Auto Adapt, Flow Adapt, Temp

- Heat energy meter
- Patented differential pressure sensor

Hydraulic efficiency

- Optimized pump hydraulics

Motor Efficiency

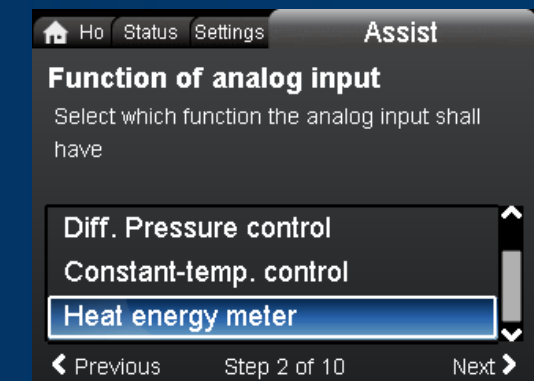
- The most efficient ECM available today

- Composite rotor
- Compact stator

Installation Efficiency

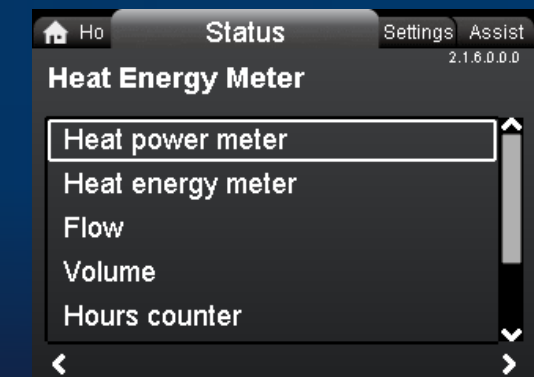
- Easy installation and commissioning
- Grundfos Go
- Assist menu
- Trend Data

The new MAGNA3 comes with a monitoring function, which makes it possible to keep track of the heat energy distribution and consumption within a system. This avoids excessive energy bills caused by system imbalances.



The heat energy meter has an accuracy between +/-1% and +/-10% and makes installing a separate energy metering device within your system superfluous.

Temperature input from return pipe



PRODUCT RANGE

MAGNA3

Pump type	Port-to-port length (IN)	Single pump, cast iron		Single pump, stainless		Twin pump, Cast Iron
		115V	208-230V	115V	208-230V	208-230V
MAGNA3 40-80 F	8-1/2"	98126800	98126828	98126802	98126830	—
MAGNA3 40-120 F	8-1/2"	98126804	98126832	98126806	98126834	—
MAGNA3 40-180 F	8-1/2"	98126808	98126836	98126810	98126838	—
MAGNA3 50-80 F	9-1/2"	98126812	98126840	98126814	98126842	—
MAGNA3 50-150 F	11"	981268016	98126844	98126818	98126846	—
MAGNA3 65-120 F	13-1/2"	98124696	98126848	98124702	98126850	—
MAGNA3 65-150 F	13-1/2"	—	98126852	—	98126854	98126863
MAGNA3 80-100 F	14-1/4"	—	98126856	—	98126858	98126864
MAGNA3 100-120 F	17-3/4"	—	98126860	—	98126862	98126864



Temperature range (all models):

Liquid temperature: 14°F up to 230°F

Ambient temperature: 32°F up to 104°F



PERFORMANCE RANGE

