



The EEI of MAGNA1 meets and exceeds the requirements of the EuP 2015 legislation.

NEW MAGNA1 HIGH EFFICIENCY MADE SIMPLE

The New MAGNA1 is a cost-efficient yet high-performing circulator. The reliable pump complies with the strict EuP requirements and features only what is important for its core function. This means that the pump is ideal for larger development projects and is the perfect replacement for UPS pumps in existing systems.

MAGNA1 is designed for circulating liquids in:

- Heating systems
- Air-conditioning and cooling systems
- Domestic hot-water systems
- Ground source heat-pump systems
- Solar-heating systems

MAGNA1 features

- Simple installation
- Low energy consumption – all MAGNA1 pumps comply with EuP 2013 and 2015 requirements
- Nine possible pump settings
- Low noise level
- Minimal maintenance and long life
- Range is available for a maximum system pressure of 16 bar
- Fault relay output
- Digital start/stop input
- Wireless multipump function with time based alternation
- Communication with Grundfos GO Remote

TECHNICAL DATA

Max. head:	18 m
Max. flow:	71 m ³ /h
Max. power:	1523 W
Connections:	G 1 ½ to DN 100
Liquid temperature:	-10°C to 110°C
Ambient temperature:	0°C to 40°C
Nominal system pressure:	6/10/16 bar
Stainless steel pump house:	25-40 to 65-100

Curve Options and Control Modes



	MAGNA3	MAGNA	MAGNA1	UPS
AUTOADAPT	✓	✓	✗	✗
FLOWADAPT	✓	✗	✗	✗
Proportional pressure	✓	✓	✓	✗
Constant pressure	✓	✓	✓	✗
Fixed pump speeds	✓	✓	✓	✓
Automatic night setback	✓	✓	✗	✗

Multi-pump Control Modes

	MAGNA3	MAGNA	MAGNA1	UPS
Alternating operation	✓	✓	✓	✗
Back-up operation	✓	✓	✗	✗
Cascade operation	✓	✗	✗	✗

NEW MAGNA1 KEY FEATURES

Communication via digital input, relay output and Grundfos GO Remote

Insulation shells

Insulation shells are available for air-conditioning and cooling systems as an accessory.

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Constant speed mode

Three constant speed modes for constant flow applications

Button for easy control mode selection



Proportional pressure mode

Three proportional-pressure modes ideal for radiator heating systems

Constant pressure mode

Three constant-pressure modes suitable for applications such as underfloor heating systems

Durable

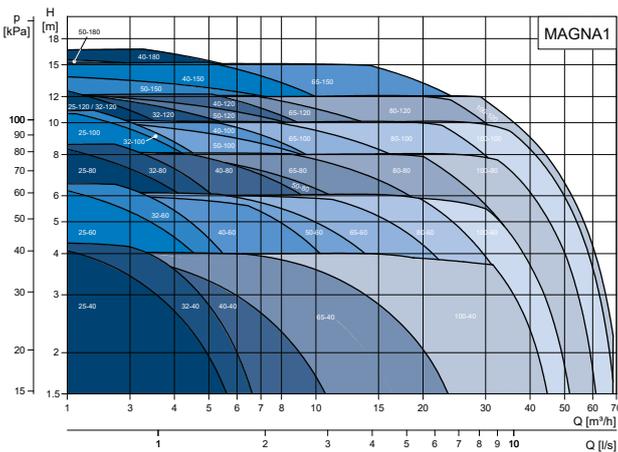
No external motor protection required

Wide temperature range

Wide temperature range where the liquid temperature and the ambient temperature are independent of each other

PERFORMANCE CURVES

With a wide range of different single and twin head options covering even more duties, specifying HVAC applications has never been easier. The extended range offers a maximum head of 18m and maximum flow of 71m³/h (110 m³/h for twin head models), and a 6 to 16 bar system pressure.



OVERVIEW OF CONTROL MODES

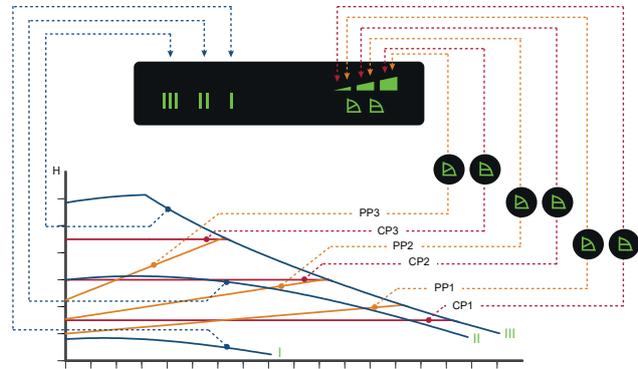


Fig. 1 Pump setting in relation to pump performance

Setting	Pump curve	Function
PP1	Lowest curve	Proportional Pressure The pump's duty point will move up and down the proportional-pressure curve as the system heat demand changes. When the heating demand is rising the pump flow and head will increase as the heating system valves open. When the heating demand is falling the pump flow and pressure will decrease as the heating system valves close.
PP2	Intermediate curve	
PP3	Highest curve	
CP1	Lowest curve	Constant Pressure
CP2	Intermediate curve	The pump's duty point will move along the constant-pressure curve as the system heat demand changes. When the heating demand is rising the pump flow will increase as the heating system valves open. When the heating demand is falling the pump flow will decrease as the heating system valves close.
CP3	Highest curve	
III	Speed III	In speed III, the pump is set to run on the maximum curve under all operating conditions. Quick venting of the pump can be obtained by setting the pump to speed III for a short period.
II	Speed II	In speed II, the pump is set to run on the intermediate curve under all operating conditions.
I	Speed I	In speed I, the pump is set to run on the minimum curve under all operating conditions.