

MAGNA1

Circulator pumps

50/60 Hz



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1. Product description

The Grundfos MAGNA1 circulator pumps are designed for circulating liquids in the following systems:

- heating systems
- air-conditioning and cooling systems
- domestic hot-water systems.

The pump range can also be used for the following systems:

- ground source heat pump systems
- solar-heating systems.

Duty range

Data	MAGNA1 (N) Single-head pumps	MAGNA1 D Twin-head pumps
Maximum flow rate, Q	71 m ³ /h	110 m ³ /h
Maximum head, H	18 metres	
Maximum system pressure	1.0 MPa (10 bar)	
Liquid temperature	-10 - 110 °C	



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Fig. 1 Single-head MAGNA1 pumps

Characteristic features

- Proportional-pressure control.
- constant-pressure control.
- constant-curve/constant-speed duty.
- no external motor protection required.
- insulating shells supplied with single-head pumps for heating systems.
- wide temperature range due to thermal separation of the control box and pumped media.

Benefits

- Simple installation.
- LED indication of the pump setting.
- Low noise level.
- No maintenance and long life.
- The complete range is available for a maximum system pressure of 10 bar (PN 10).

Main applications

Heating systems

- Main pump
- mixing loops
- domestic hot-water systems
- heating surfaces
- air-conditioning surfaces.

The circulator pumps are designed for circulating liquids in heating systems with variable flows where it is desirable to optimise the setting of the pump duty point, thus reducing energy costs. The pumps are also suitable for domestic hot-water systems. Grundfos strongly recommends that you use stainless-steel pumps in domestic hot-water systems to avoid corrosion.

To ensure correct operation, it is important that the sizing range of the system falls within the duty range of the pump.

Type key

Code	Example	MAGNA1	D	80	-120	(F)	(N)	360
	Type range MAGNA1							
D	Twin-head pump							
	Nominal diameter (DN) of suction and discharge ports [mm]							
	Maximum head [dm]							
	Pipe connection Threaded F Flange							
	Pump housing material Cast iron N Stainless steel							
	Port-to-port length [mm]							

Performance range, MAGNA1

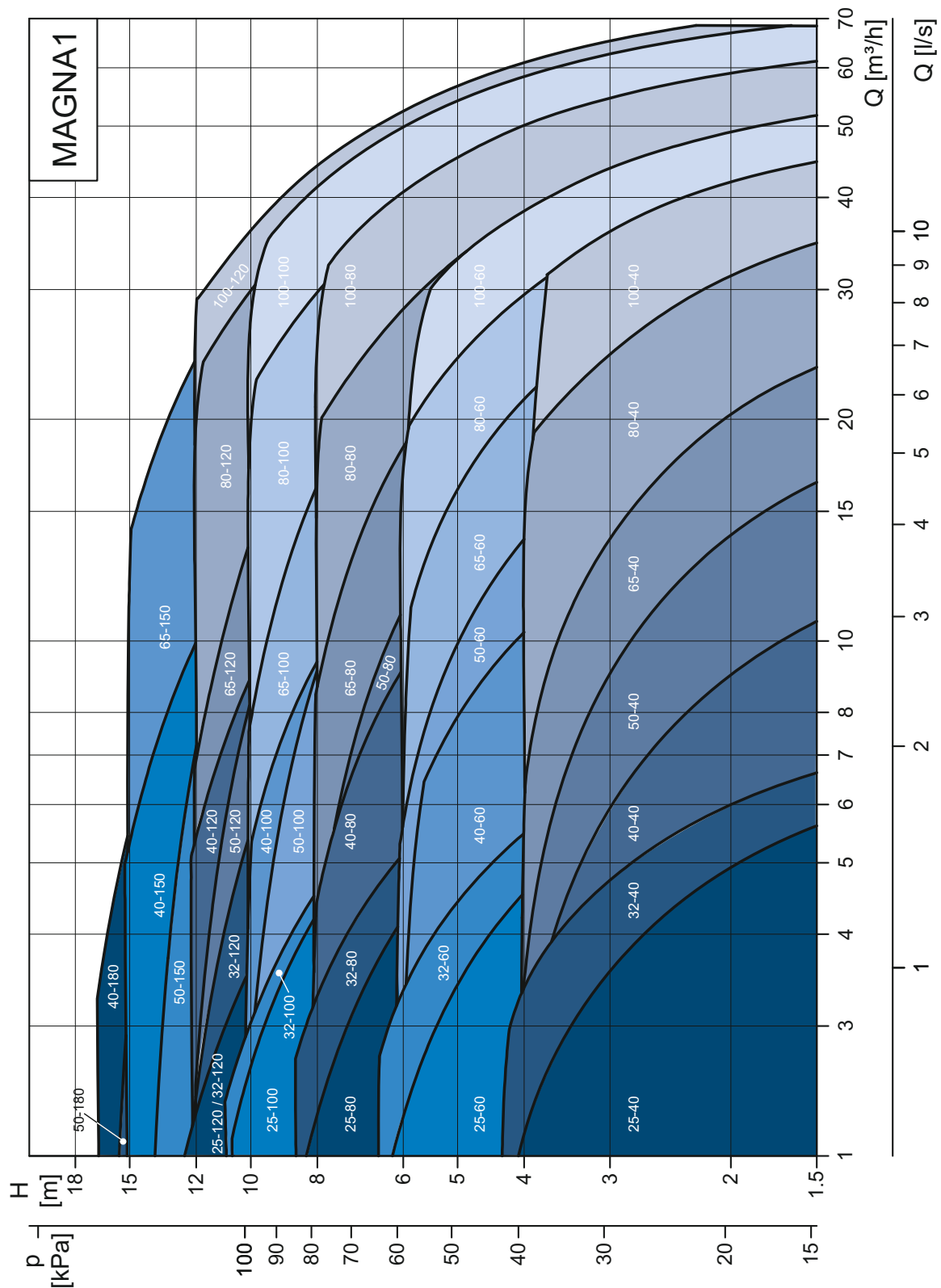


Fig. 2 Performance range, MAGNA1

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Performance range, MAGNA1 D single-head operation

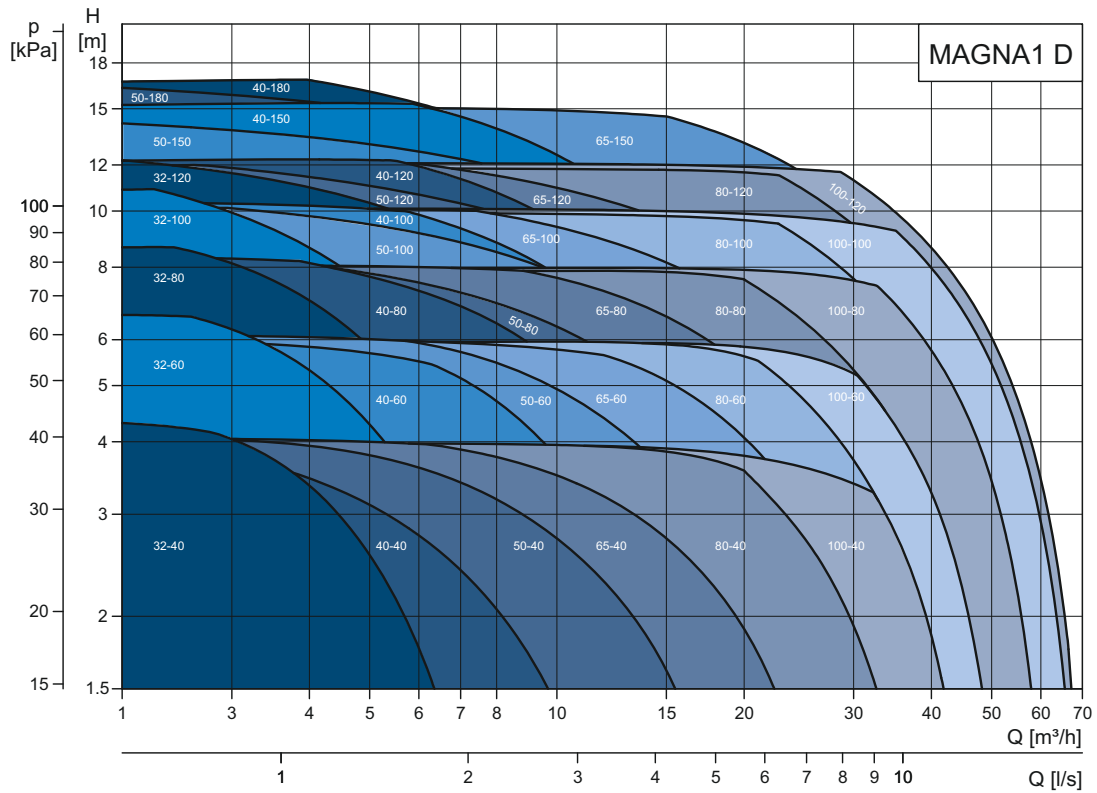


Fig. 3 Performance range, MAGNA1 D single-head operation

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Performance range, MAGNA1 D twin-head operation

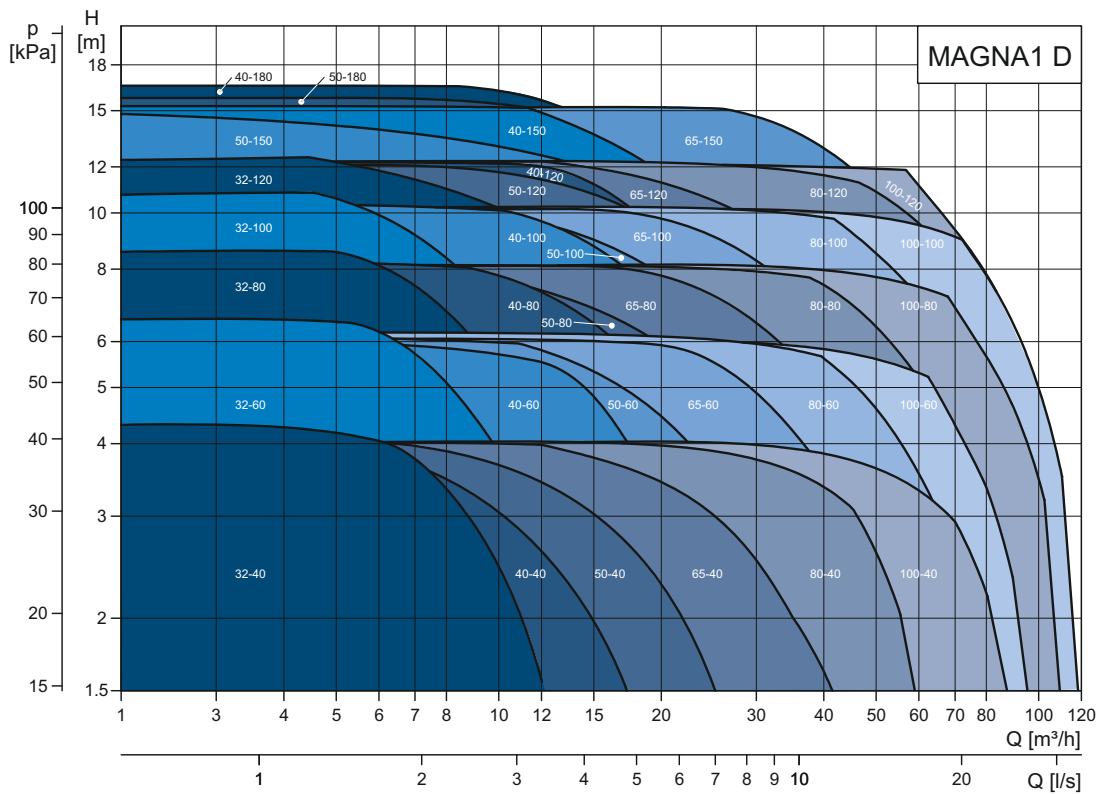


Fig. 4 Performance range, MAGNA1 D twin-head operation

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2. Product range

Single-head pumps

Pump type	Port-to-port length [mm]	Threaded pipe connection		Data sheet, page	
		Cast iron			Stainless steel
		PN 10	PN 10		PN 10
MAGNA1 25-40 (N)	180	•	•	24	
MAGNA1 25-60 (N)	180	•	•	25	
MAGNA1 25-80 (N)	180	•	•	26	
MAGNA1 25-100 (N)	180	•	•	27	
MAGNA1 25-120 (N)	180	•	•	28	
MAGNA1 32-40 (N)	180	•	•	29	
MAGNA1 32-60 (N)	180	•	•	31	
MAGNA1 32-80 (N)	180	•	•	33	
MAGNA1 32-100 (N)	180	•	•	35	
MAGNA1 32-120 (N)	180	•	•	37	

Pump type	Port-to-port length [mm]	Flange connection				Data sheet, page
		Cast iron			Stainless steel	
		PN 6	PN 10	PN 6/10	PN 6/10	
MAGNA1 32-40 F (N)	220			•	•	38
MAGNA1 32-60 F (N)	220			•	•	40
MAGNA1 32-80 F (N)	220			•	•	42
MAGNA1 32-100 F (N)	220			•	•	44
MAGNA1 32-120 F (N)	220			•	•	46
MAGNA1 40-40 F (N)	220			•	•	48
MAGNA1 40-60 F (N)	220			•	•	50
MAGNA1 40-80 F (N)	220			•	•	52
MAGNA1 40-100 (N)F	220			•	•	54
MAGNA1 40-120 F (N)	250			•	•	56
MAGNA1 40-150 F (N)	250			•	•	58
MAGNA1 40-180 F (N)	250			•	•	60
MAGNA1 50-40 F (N)	240			•	•	62
MAGNA1 50-60 F (N)	240			•	•	64
MAGNA1 50-80 F (N)	240			•	•	66
MAGNA1 50-100 F (N)	280			•	•	68
MAGNA1 50-120 F (N)	280			•	•	70
MAGNA1 50-150 F (N)	280			•	•	72
MAGNA1 50-180 F (N)	280			•	•	74
MAGNA1 65-40 F (N)	340			•	•	76
MAGNA1 65-60 F (N)	340			•	•	78
MAGNA1 65-80 F (N)	340			•	•	80
MAGNA1 65-100 F (N)	340			•	•	82
MAGNA1 65-120 F (N)	340			•	•	84
MAGNA1 65-150 F (N)	340			•	•	86
MAGNA1 80-40 F	360	•	•			88
MAGNA1 80-60 F	360	•	•			90
MAGNA1 80-80 F	360	•	•			92
MAGNA1 80-100 F	360	•	•			94
MAGNA1 80-120 F	360	•	•			96
MAGNA1 100-40 F	450	•	•			98
MAGNA1 100-60 F	450	•	•			100
MAGNA1 100-80 F	450	•	•			102
MAGNA1 100-100 F	450	•	•			104
MAGNA1 100-120 F	450	•	•			106

Note: For further information about the product numbers of the various pump variants, see page [114](#).

Twin-head pumps

Pump type	Port-to-port length [mm]	Threaded pipe connection		Data sheet, page
		Cast iron		
		PN 10		
MAGNA1 D 32-40	180	•		30
MAGNA1 D 32-60	180	•		32
MAGNA1 D 32-80	180	•		34
MAGNA1 D 32-100	180	•		36

Pump type	Port-to-port length [mm]	Flange connection			Data sheet, page
		Cast iron			
		PN 6	PN 10	PN 6/10	
MAGNA1 D 32-40 F	220			•	39
MAGNA1 D 32-60 F	220			•	41
MAGNA1 D 32-80 F	220			•	43
MAGNA1 D 32-100 F	220			•	45
MAGNA1 D 32-120 F	220			•	47
MAGNA1 D 40-40 F	220			•	49
MAGNA1 D 40-60 F	220			•	51
MAGNA1 D 40-80 F	220			•	53
MAGNA1 D 40-100 F	220			•	55
MAGNA1 D 40-120 F	250			•	57
MAGNA1 D 40-150 F	250			•	59
MAGNA1 D 40-180 F	250			•	61
MAGNA1 D 50-40 F	240			•	63
MAGNA1 D 50-60 F	240			•	65
MAGNA1 D 50-80 F	240			•	67
MAGNA1 D 50-100 F	280			•	69
MAGNA1 D 50-120 F	280			•	71
MAGNA1 D 50-150 F	280			•	73
MAGNA1 D 50-180 F	280			•	75
MAGNA1 D 65-40 F	340			•	77
MAGNA1 D 65-60 F	340			•	79
MAGNA1 D 65-80 F	340			•	81
MAGNA1 D 65-100 F	340			•	83
MAGNA1 D 65-120 F	340			•	85
MAGNA1 D 65-150 F	340			•	87
MAGNA1 D 80-40 F	360	•	•		89
MAGNA1 D 80-60 F	360	•	•		91
MAGNA1 D 80-80 F	360	•	•		93
MAGNA1 D 80-100 F	360	•	•		95
MAGNA1 D 80-120 F	360	•	•		97
MAGNA1 D 100-40 F	450	•	•		99
MAGNA1 D 100-60 F	450	•	•		101
MAGNA1 D 100-80 F	450	•	•		103
MAGNA1 D 100-100 F	450	•	•		105
MAGNA1 D 100-120 F	450	•	•		107

Note: For more information about the product numbers of the various pump variants, see page 114.

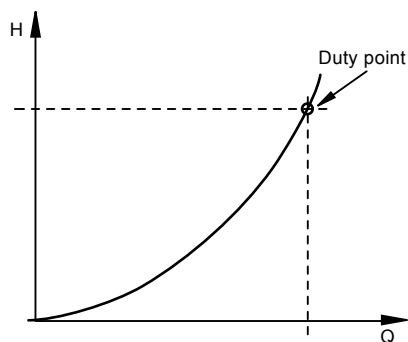
Pump selection

Pump size

The selection of pump size should be based on the following:

- the required maximum flow
- the maximum pressure loss in the system.

Refer to the system characteristics to determine the duty point. See fig. 5.



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Fig. 5 System characteristic

Operating conditions

You must check whether the operating conditions are fulfilled, i.e.

- liquid quality and temperature
- ambient conditions
- minimum inlet pressure
- maximum operating pressure.

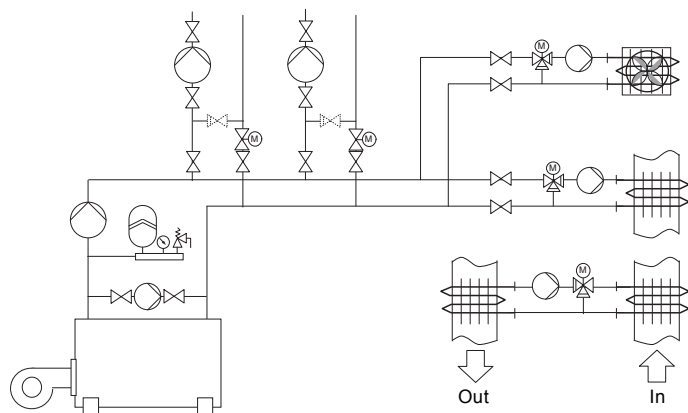
Control modes

- Proportional-pressure control in systems with considerable pressure losses in relation to large flow variations.
- Constant-pressure control in systems with insignificant pressure losses in relation to large flow variations.
- In constant-curve/constant-speed operation, the pump will run at a constant speed, independent of the actual flow demand in the system.

3. Functions

System applications

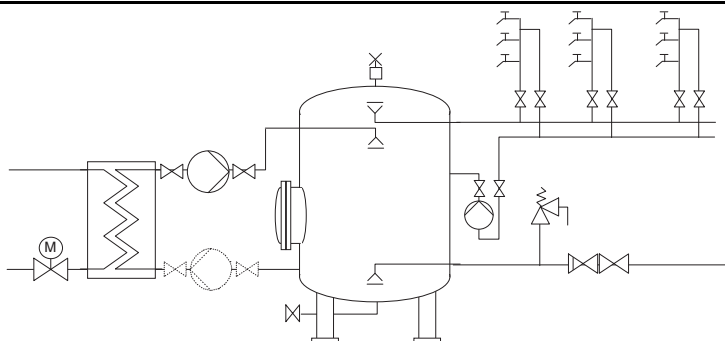
Heating systems



- One- and two-pipe heating systems
- main pumps
- zone pumps
- mixing loops
- boiler shunt pumps
- pumps for heating surfaces
- calorifiers
- underfloor heating systems
- solar heating systems
- ground source heat pump systems
- heat recovery systems.

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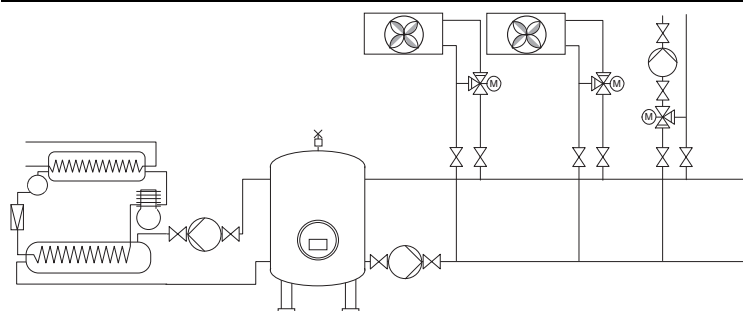
Domestic hot-water systems



- Domestic hot-water systems

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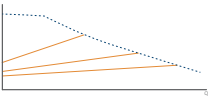
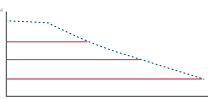
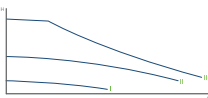
Air-conditioning and cooling systems



- Two-pipe air-conditioning systems
- main pumps
- zone pumps
- pumps for refrigeration units
- heat pump systems
- ground source heat pump systems
- heat recovery systems
- air-conditioning surfaces.

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Selection of control mode

System application	Select this control mode
<p>In systems with relatively large pressure losses in the distribution pipes and in air-conditioning and cooling systems.</p> <ul style="list-style-type: none"> • Two-pipe heating systems with thermostatic valves and <ul style="list-style-type: none"> – very long distribution pipes – strongly throttled balancing valves – differential-pressure regulators – large pressure losses in those parts of the system through which the total quantity of water flows (for example boiler, heat exchanger and distribution pipe up to the first branching). • Primary circuit pumps in systems with large pressure losses in the primary circuit. • Air-conditioning systems with <ul style="list-style-type: none"> – heat exchangers (fan coils) – cooling ceilings – cooling surfaces. 	<p>Proportional pressure</p> 
<p>In systems with relatively small pressure losses in the distribution pipes.</p> <ul style="list-style-type: none"> • Two-pipe heating systems with thermostatic valves and <ul style="list-style-type: none"> – dimensioned for natural circulation – small pressure losses in those parts of the system through which the total quantity of water flows (for example boiler, heat exchanger and distribution pipe up to the first branching) or – modified to a high differential temperature between the flow pipe and return pipe (for example district heating). • Underfloor heating systems with thermostatic valves. • One-pipe heating systems with thermostatic valves or pipe balancing valves. • Primary circuit pumps in systems with small pressure losses in the primary circuit. 	<p>Constant pressure</p> 
<p>You can also set the pump to operate according to the maximum or minimum curve, like an uncontrolled pump:</p> <ul style="list-style-type: none"> • You can use the maximum curve mode in periods in which a maximum flow is required. This operating mode is for instance suitable for hot-water priority in domestic hot-water systems. • You can use the minimum curve mode in periods in which a minimum flow is required. 	<p>Constant curve</p> 

Control modes

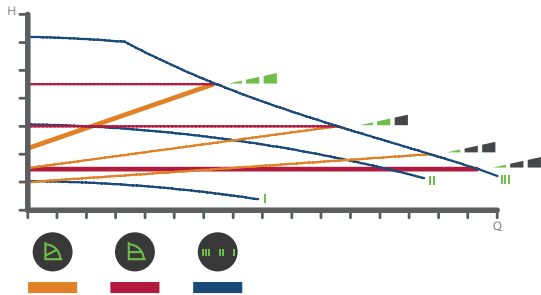


Fig. 6 Selection of pump setting for system type

Factory setting: Intermediate proportional-pressure curve, referred to as PP2.

Proportional-pressure curve (PP1, PP2 or PP3)

Proportional-pressure control adjusts the pump performance to the actual heat demand in the system, but the pump performance follows the selected performance curve, PP1, PP2 or PP3. See fig. 7 where PP2 has been selected.

For further information, see [Selection of control mode](#), page 11.

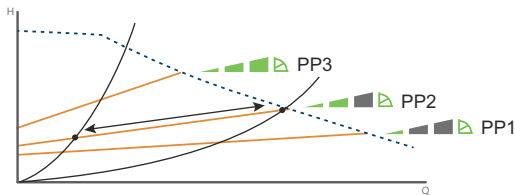


Fig. 7 Three proportional-pressure curves/settings

The selection of the right proportional-pressure setting depends on the characteristics of the heating system in question and the actual heat demand.

Constant-pressure curve (CP1, CP2 or CP3)

Constant-pressure control adjusts the pump performance to the actual heat demand in the system, but the pump performance follows the selected performance curve, CP1, CP2 or CP3. See fig. 8 where CP1 has been selected.

For further information, see [Selection of control mode](#), page 11.

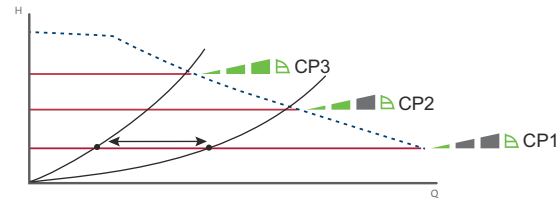


Fig. 8 Three constant-pressure curves/settings

The selection of the right constant-pressure setting depends on the characteristics of the heating system in question and the actual heat demand.

Constant curve/constant speed (I, II or III)

In constant-curve/constant-speed operation, the pump will run at a constant speed, independent of the actual flow demand in the system. The pump performance follows the selected performance curve, I, II or III. See fig. 9 where II has been selected.

For further information, see [Selection of control mode](#), page 11.

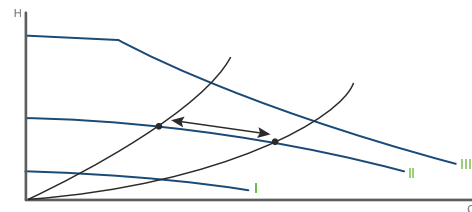


Fig. 9 Three constant-curve/constant-speed settings

The selection of the right constant-curve/constant-speed setting depends on the characteristics of the heating system in question.

Control panel



Fig. 10 Control panel at first startup

The control panel on the pump comprises the following:

Pos.	Description
1	Grundfos Eye operating status. See Grundfos Eye below.
2	LEDs indicate the pump setting. See LEDs indicating the pump setting below.
3	Push-button for selection of pump setting.

Grundfos Eye

Grundfos Eye is on when the power supply has been switched on. See fig. 10, pos. 1.

Grundfos Eye is an indicator light providing information about the actual pump status.

The indicator light will flash in different sequences and provide information about the following:

- power on or off
- pump running or stopped
- pump alarms.

LEDs indicating the pump setting

The pump has nine optional performance settings which you can select with the push-button. See fig. 10, pos. 3.

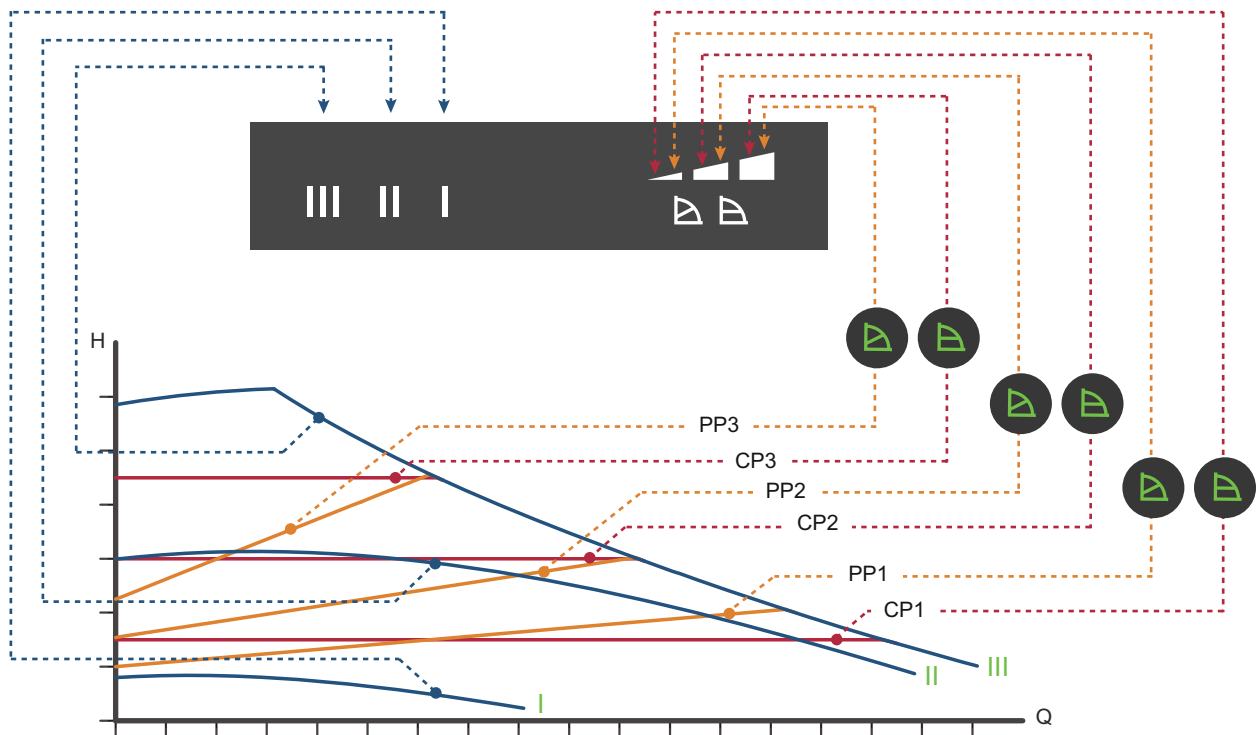
The pump setting is indicated by the LEDs in the display. See fig. 10, pos. 2.



Fig. 11 Factory setting, PP2

Button presses	Active light fields	Description
0		Intermediate proportional-pressure curve, referred to as PP2
1		Highest proportional-pressure curve, referred to as PP3
2		Lowest constant-pressure curve, referred to as CP1
3		Intermediate constant-pressure curve, referred to as CP2
4		Highest constant-pressure curve, referred to as CP3
5		Constant curve/constant speed III
6		Constant curve/constant speed II
7		Constant curve/constant speed I
8		Lowest proportional-pressure curve, referred to as PP1

Overview of settings



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Fig. 12 Pump setting in relation to pump performance

Setting	Pump curve	Function
PP1	Lowest proportional-pressure curve	The duty point of the pump will move up or down on the lowest proportional-pressure curve, depending on the heat demand. See fig. 12. The head (pressure) is reduced at falling heat demand and increased at rising heat demand.
PP2	Intermediate proportional-pressure curve	The duty point of the pump will move up or down on the intermediate proportional-pressure curve, depending on the heat demand. See fig. 12. The head (pressure) is reduced at falling heat demand and increased at rising heat demand.
PP3	Highest proportional-pressure curve	The duty point of the pump will move up or down on the highest proportional-pressure curve, depending on the heat demand. See fig. 12. The head (pressure) is reduced at falling heat demand and increased at rising heat demand.
CP1	Lowest constant-pressure curve	The duty point of the pump will move out or in on the lowest constant-pressure curve, depending on the heat demand in the system. See fig. 12. The head (pressure) is kept constant, irrespective of the heat demand.
CP2	Intermediate constant-pressure curve	The duty point of the pump will move out or in on the intermediate constant-pressure curve, depending on the heat demand in the system. See fig. 12. The head (pressure) is kept constant, irrespective of the heat demand.
CP3	Highest constant-pressure curve	The duty point of the pump will move out or in on the highest constant-pressure curve, depending on the heat demand in the system. See fig. 12. The head (pressure) is kept constant, irrespective of the heat demand.
III	Speed III	The pump runs on a constant curve which means that it runs at a constant speed. At speed III, the pump is set to run on the maximum curve under all operating conditions. See fig. 12. Quick venting of the pump can be obtained by setting the pump to speed III for a short period.
II	Speed II	The pump runs on a constant curve which means that it runs at a constant speed. At speed II, the pump is set to run on the intermediate curve under all operating conditions. See fig. 12.
I	Speed I	The pump runs on a constant curve which means that it runs at a constant speed. At speed I, the pump is set to run on the minimum curve under all operating conditions. See fig. 12.

4. Operating conditions

General recommendations

Water in heating systems	Water quality according to local standards such as the German standard VDI 2035
Water containing glycol	Maximum viscosity = 10-50 cSt ~ 50 % water / 50 % glycol at -10 °C

Liquid temperature

-10 - 110 °C.

Ambient conditions

Ambient temperature during operation	0-40 °C
Ambient temperature during storage and transport	-40 - 70 °C
Relative air humidity	Max. 95 %

Maximum operating pressure

PN 6: 6 bar / 0.6 MPa

PN 10: 10 bar / 1.0 MPa.

Minimum inlet pressure

The following relative minimum inlet pressure must be available at the pump inlet during operation to avoid cavitation noise and damage to the pump bearings.

Note: The values in the table below apply to single-head pumps and twin-head pumps in single-head operation.

Single-head pumps DN	Liquid temperature		
	75 °C	95 °C	110 °C
	Inlet pressure [bar] / [MPa]		
25-40/60/80/100/120	0.10 / 0.01	0.35 / 0.035	1.0 / 0.10
32-40/60/80/100/120	0.10 / 0.01	0.35 / 0.035	1.0 / 0.10
32-120 F	0.10 / 0.01	0.20 / 0.020	0.7 / 0.07
40-40/60 F	0.10 / 0.01	0.35 / 0.035	1.0 / 0.10
40-80/100/120/150/180 F	0.10 / 0.01	0.50 / 0.05	1.0 / 0.10
50-40/60/80 F	0.10 / 0.01	0.40 / 0.04	1.0 / 0.10
50-100/128 F	0.10 / 0.01	0.50 / 0.05	1.0 / 0.10
50-150/180 F	0.70 / 0.07	1.20 / 0.12	1.7 / 0.17
65-40/60/80/100/120/150 F	0.70 / 0.07	1.20 / 0.12	1.7 / 0.17
80-40/60/80/100/120 F	0.50 / 0.05	1.00 / 0.10	1.5 / 0.15
100-40/60/80/100/120 F	0.70 / 0.07	1.20 / 0.12	1.7 / 0.17

In the case of manual synchronous operation, the required relative inlet pressure must be increased by 0.1 bar / 0.01 MPa compared to the stated values for single-head pumps or twin-head pumps in single-head operation.

Note: The actual inlet pressure plus pump pressure against a closed valve must be lower than the maximum permissible system pressure.

The relative minimum inlet pressures apply to pumps installed up to 300 metres above sea level. For altitudes above 300 metres, the required relative inlet pressure must be increased by 0.01 bar / 0.001 MPa per 100 metres altitude. The pump is only approved for an altitude of 2000 metres above sea level.

Pumped liquids

The pump is suitable for thin, clean, non-aggressive liquids, not containing solid particles or fibres that may attack the pump mechanically or chemically.

In heating systems, the water must meet the requirements of accepted standards on water quality in heating systems, for example the German standard VDI 2035.

In domestic hot-water systems, we recommend that you keep the liquid temperature below 65 °C to eliminate the risk of lime precipitation.

Do not use the pump for flammable, combustible or explosive liquids, such as diesel oil and petrol.

Do not use the pump for aggressive liquids, such as acids and seawater.

If the pump is not used during periods of frost, take the necessary steps to prevent frost bursts.

Additives with a density and/or kinematic viscosity higher than those of water will reduce the hydraulic performance.

Do not use additives that in any way can or will disturb the functionality of the pump.

Whether a pump is suitable for a particular liquid depends on a number of factors of which the most important are lime content, pH value, temperature and content of solvents and oils.

You can use the pump for pumping water/glycol mixtures up to 50 %. See page 15.

The pumping of glycol mixtures will reduce the hydraulic performance.

Electrical data

Pump type	MAGNA1 (D).
Enclosure class	IPX4D (EN 60529).
Insulation class	F.
Supply voltage	1 x 230 V \pm 10 %, 50/60 Hz, PE.
Leakage current	$I_{\text{leakage}} < 3.5 \text{ mA}$. The leakage current is measured in accordance with EN 60335-1.
EMC	EN 55014-1:2006, EN 55014-2:1998, EN 61000-3-3:2013 and EN 61000-3-2:2006.

Sound pressure level

Pump type	MAGNA1 (D).
Sound pressure level	$\leq 43 \text{ dB(A)}$.

5. Construction

The MAGNA1 is of the canned-rotor type, i.e. pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid.

The pump is characterised by the following:

- controller integrated in the control box
- control panel on the control box
- twin-head versions
- no external motor protection required
- insulating shells supplied with single-head pumps for heating systems.

Motor and electronic controller

The pump incorporates a 4-pole synchronous, permanent-magnet motor (PM motor). This motor type is characterised by higher efficiency than a conventional asynchronous squirrel-cage motor.

The pump speed is controlled by an integrated frequency converter.

Pump connections

Threaded pipe connections according to ISO 228-1.

Flange dimensions according to EN 1092-2.

Surface treatment

The pump housing and pump head are electrocoated to improve the corrosion resistance.

Electrocoating includes:

- alkaline cleaning
- pretreatment with zinc phosphate coating
- cathodic electrocoating (epoxy)
- curing of paint film at 200-250 °C.

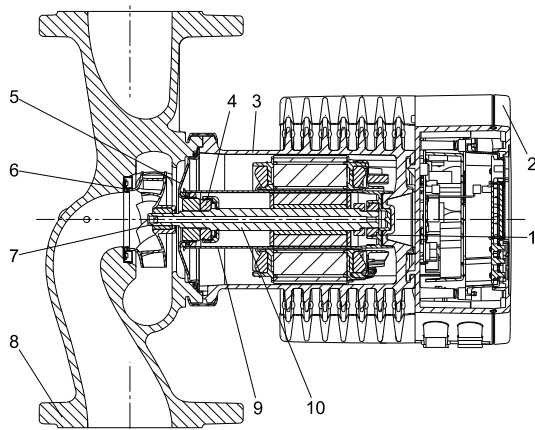
The pump housing of stainless-steel versions is not treated and painted and appears in blank steel. See fig. 13.



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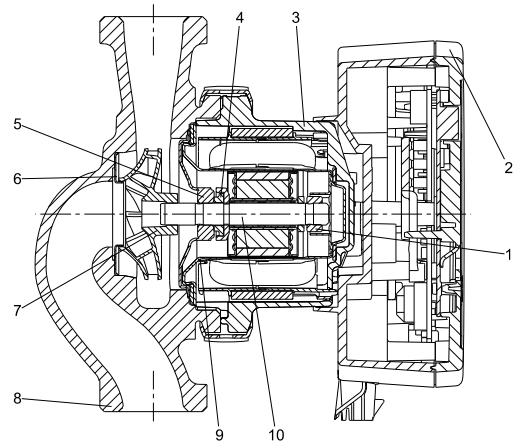
Fig. 13 Stainless-steel version

Sectional drawings



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Fig. 14 Terminal-connected version with PPS composite rotor can



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Fig. 15 Plug-connected version with stainless-steel rotor can

Material specification

See figs 14 and 15.

Rotor can materials

Pos.	Component	Material	EN
1	Outer bearing ring	Aluminium oxide	
2	Control box	Polycarbonate	
3	Stator housing	Aluminium	
	O-rings/gaskets	EPDM	
4	Thrust bearing	Aluminium oxide/carbon	
5	Bearing plate	Stainless steel	EN 1.4301
6	Neck ring	Stainless steel	EN 1.4301
7	Impeller	PES	
8	Pump housing	Cast iron / stainless steel	EN 1561 EN-GJL-250/EN 1.4408
9	Rotor can	PPS or stainless steel	
10	Shaft	Ceramics (plug-connected versions)	
10	Shaft	Stainless steel (terminal-connected versions)	EN 1.4404

MAGNA1 25-40/60/80/100 (PN 6/10) and MAGNA1 32-40/60/80 (PN 6/10) have a stainless-steel rotor can. All other versions have a PPS-composite rotor can. See the table below.

Pump type	Maximum system pressure	
	PN 6 / 0.6 MPa	PN 10 / 1.0 MPa
MAGNA1 25-40/60/80/100 (N)		Stainless-steel rotor can
MAGNA1 25-120 (N)		PPS composite rotor can
MAGNA1 (D) 32-40/60/80 (F) (N)		Stainless-steel rotor can
MAGNA1 (D) 32-100/120 (F) (N)		
MAGNA1 (D) 40-40/60/80/100/120/150/180 F (N)		
MAGNA1 (D) 50-40/60/80/100/120/150/180 F(N)		
MAGNA1 (D) 65-40/60/80/100/120/150 F (N)		PPS composite rotor can
MAGNA1 (D) 80-40/60/80/100/120 F		
MAGNA1 (D) 100-40/60/80/100/120 F		

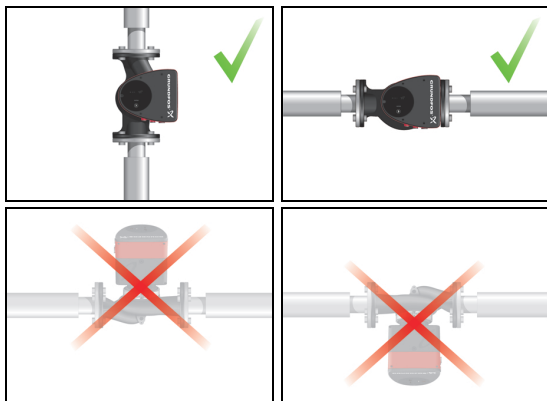
6. Installation

Mechanical installation

The pump is designed for indoor installation.

The pump must be installed with horizontal motor shaft.

The pump may be installed in horizontal as well as vertical pipes.



TM05 5518 3812

Fig. 16 Installation positions

Arrows on the pump housing indicate the liquid flow direction through the pump.

The control box must be in horizontal position with the Grundfos logo in vertical position. See fig. 16.

This is described in the installation and operating instructions.



<http://GRUNDFOS.COM/MAGNA1-MANUAL>

The pump must be installed in such a way that it is not stressed by the pipework.

The pump may be suspended directly in the pipes, provided that the pipework can support the pump. Twin-head pumps are prepared for installation on a mounting bracket or base plate.

To ensure adequate cooling of motor and electronics, the following must be observed:

- Position the pump in such a way that sufficient cooling is ensured.
- The ambient temperature must not exceed 40 °C.

The discharge valve must always be open so much that 10 % of nominal flow can pass to ensure sufficient circulation in the application. Otherwise, the temperature of the pumped liquid may become too high and cause damage to the pump.

Insulating shells

The insulating shells supplied with single-head pumps are for heating systems and must be fitted as part of the installation.

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

See *Insulating kits for air-conditioning and cooling systems* on page 108.

Note: Insulating shells are not available for twin-head pumps.

Electrical installation

The electrical connection and protection must be carried out in accordance with local regulations.

- The pump must be connected to an external mains switch.
- The pump must always be correctly earthed.
- The pump requires no external motor protection.
- The pump incorporates thermal protection against slow overloading and blocking.
- When switched on via the power supply, the pump will start pumping after approx. 5 seconds.

Note: The number of starts and stops via the power supply must not exceed four times per hour.

The pump mains connection must be made as shown in fig. 17 or 18, page 20.

Cables



All cables used must be connected in accordance with local regulations.

Additional protection

If the pump is connected to an electric installation where an earth leakage circuit breaker (ELCB) is used as an additional protection, this circuit breaker must trip when earth fault currents with DC content (pulsating DC) occur.

The earth leakage circuit breaker must be marked with the first or both of the symbols shown below:



Symbol	Description
	High-sensitivity ELCB, type A, according to IEC 60775
	High-sensitivity ELCB, type B, according to IEC 60775

Connection diagrams

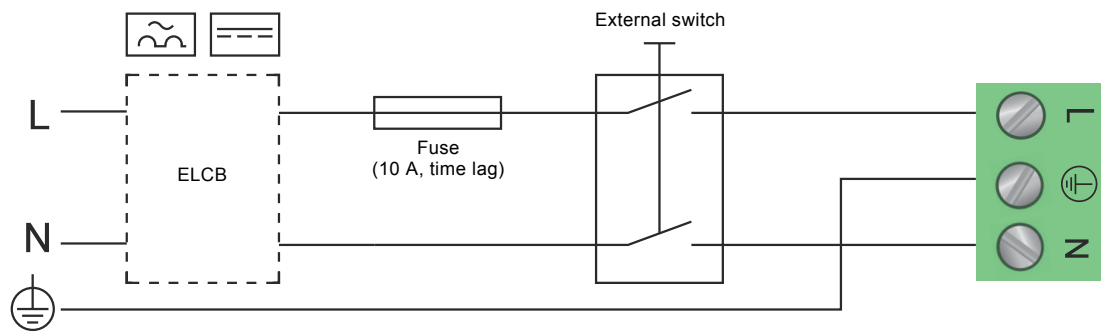


Fig. 17 Example of terminal connection, 1 x 230 V \pm 10 %, 50/60 Hz, PE

TM03 2397 3712

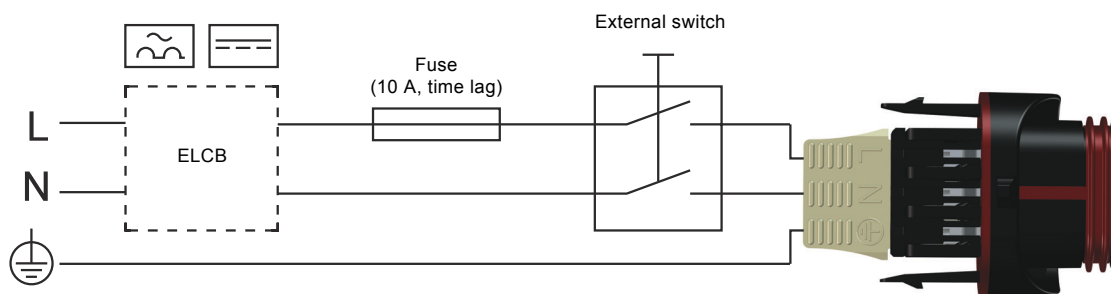


Fig. 18 Example of ALPHA plug connection, 1 x 230 V \pm 10 %, 50/60 Hz, PE

TM05 6277 3712

7. Guide to performance curves

Each pump setting has its own performance curve, QH curve. A power curve, P1 curve, is associated with each QH curve. The power curve shows the pump power consumption, P1, in watt at a given QH curve.

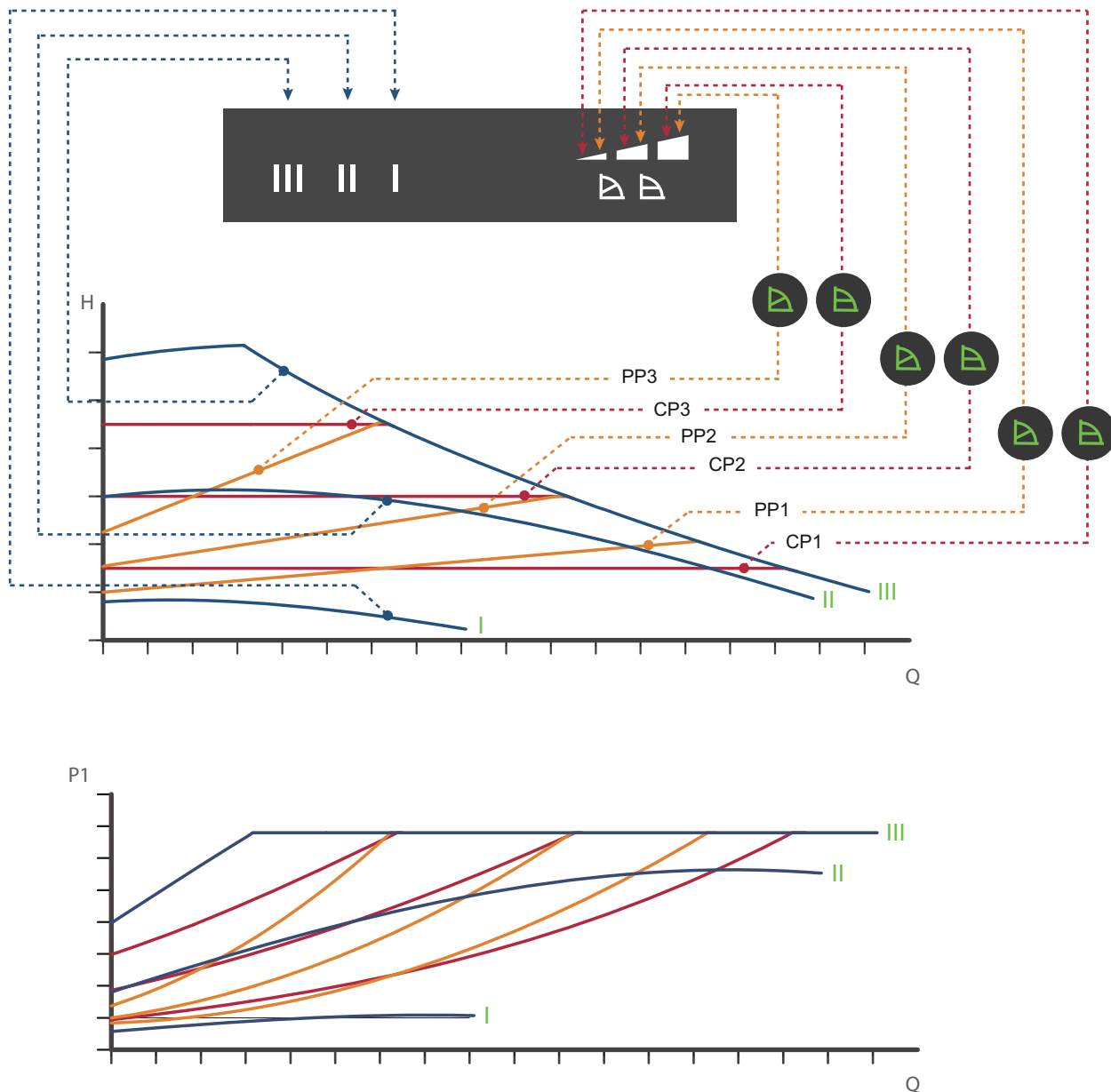


Fig. 19 Performance curves in relation to pump setting

Setting	Pump curve
PP1	Lowest proportional-pressure curve
PP2	Intermediate proportional-pressure curve
PP3	Highest proportional-pressure curve
CP1	Lowest constant-pressure curve
CP2	Intermediate constant-pressure curve
CP3	Highest constant-pressure curve
III	Constant-curve duty, fixed speed III
II	Constant-curve duty, fixed speed II
I	Constant-curve duty, fixed speed I

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8. Curve conditions

Performance curves

The guidelines below apply to the performance curves on pages 24 to 107:

- Test liquid: airless water.
- The curves apply to a density of $\rho = 998.2 \text{ kg/m}^3$ and a liquid temperature of $20 \text{ }^\circ\text{C}$.
- All curves show average values and should not be used as guarantee curves. If a specific minimum performance is required, make individual measurements.
- The curves apply to a kinematic viscosity of $\nu = 1.004 \text{ mm}^2/\text{s}$ (1.004 cSt).
- Reference supply voltage: 1 x 230 V, 50 Hz.
- Curves obtained according to EN 16297.

Symbols used on the following pages

The pump is energy-optimised and complies with the EuP Directive, Commission Regulation (EC) No 641/2009, which has been effective as from 1 January 2013.

For MAGNA1 pumps, the energy efficiency index (EEI) is ≤ 0.23 .

Figure 20 shows the energy consumption index for a typical circulator pump compared to the various EEI limits.

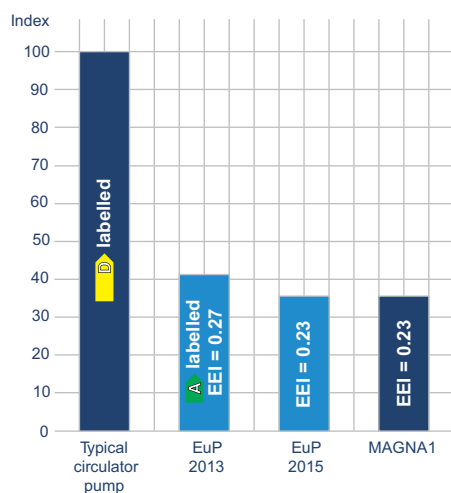


Fig. 20 Energy consumption index

With an energy efficiency index (EEI) equal to the EuP 2015, you can achieve significant energy savings compared to a typical circulator pump and thus a remarkably fast return on investment. For more information about the new energy directive, please visit the QR code on the pump nameplate.



<http://energy.grundfos.com>



Fig. 21 QR code on the pump nameplate

With Grundfos GO or a smartphone, you can get the following information about the pump:

- product photo
- pump performance curves
- dimensional sketches
- wiring diagram
- quotation text
- technical data
- service parts list
- PDF files, such as data booklet and installation and operating instructions.

TM05 5860 4112

TM05 3826 1712

Markings and approvals

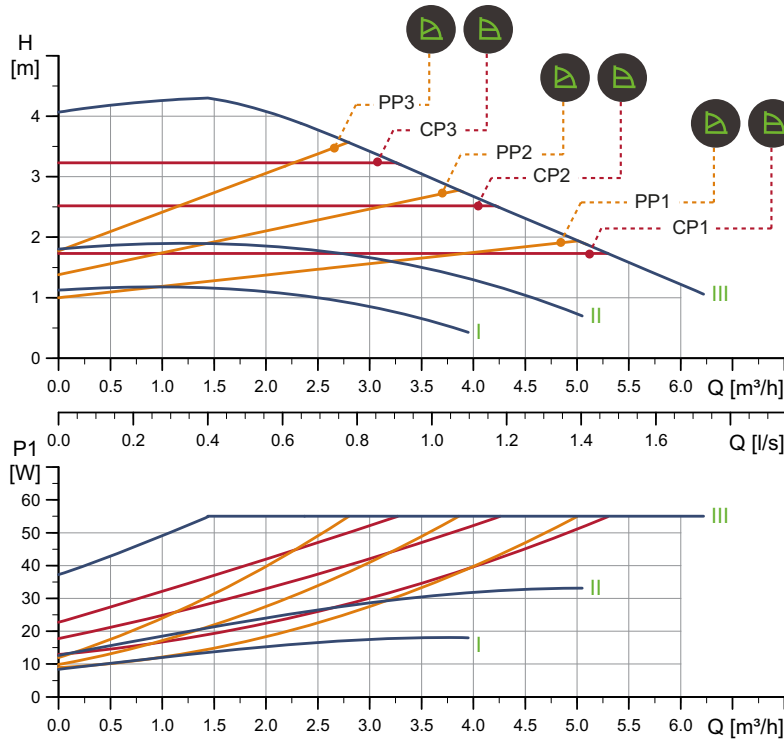
The following marks are available after positive testing of the pump:

Mark	Description
	The EC marking is based on the declaration of conformity issued by the manufacturer who certifies that the product meets all the appropriate provisions of the relevant legislation implementing certain European Directives.
	Technical working equipment and commodities ready for use, in the sense of ProdSG according to German VDE/EN/IEC standards, other technical specifications as well as possible provisions of law with respect to safety and health requirements.
	Mark of Conformity in the Russia, Kazakhstan and Belarus Customs Union for imports of Machinery and Industrial Equipment
	The product complies with the requirements of the United Kingdom Water Supply (Water Fittings) Regulations/Scottish Water Byelaws. Applies to the stainless-steel version only.
	The Turkish Standards Institute (TSE) certified that this product complies with the relevant directives and standards.
ACS	ACS - Attestation de Conformité Sanitaire. The suitability of this product to come into contact with water destined for human consumption has been evaluated and approved by a laboratory accredited by the French Ministry of Health.

9. Performance curves and technical data

MAGNA1 25-40 (N) PN 10

1 x 230 V, 50/60 Hz

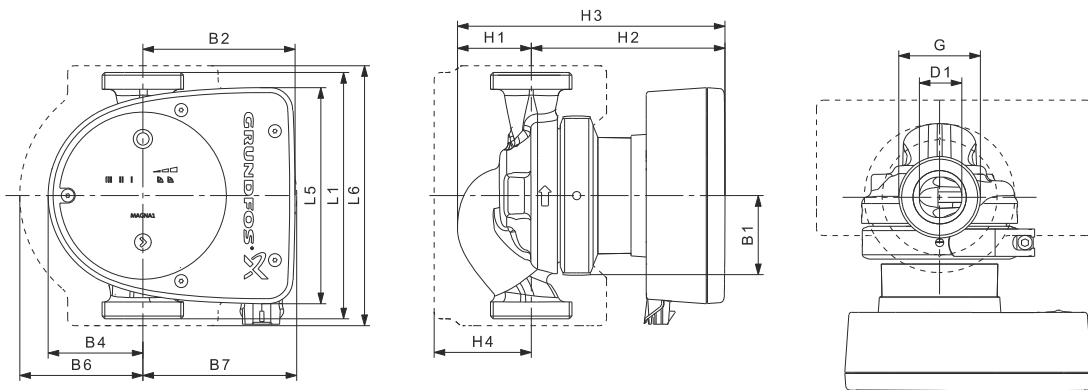


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	56	0.45

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
4.4	5.4	0.012

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.



Pump type	Dimensions [mm]												(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G
MAGNA1 25-40 (N)	180	158	190	58	111	69	90	113	54	142	196	71	25	1 1/2

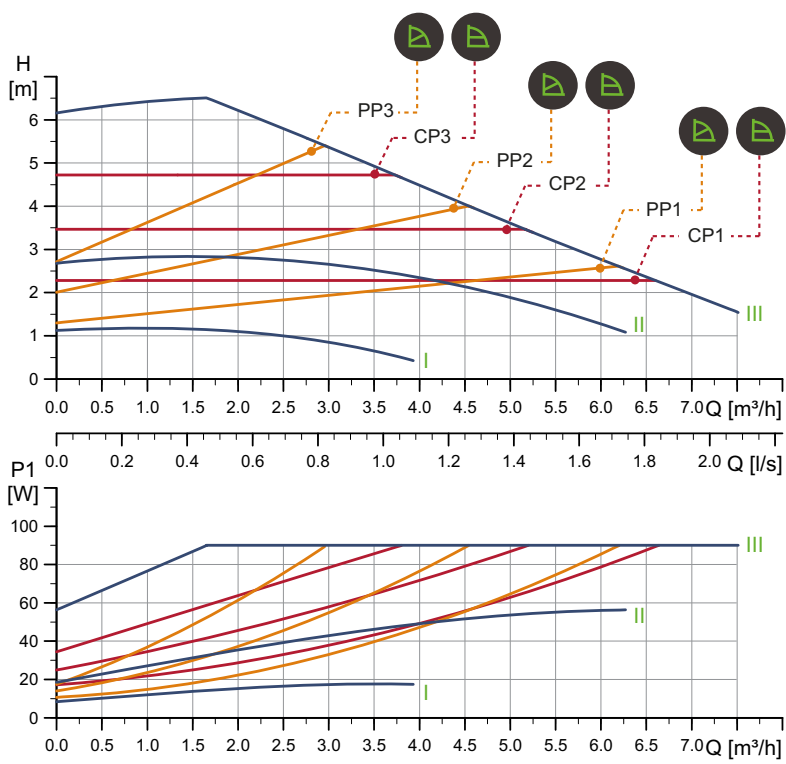
For product numbers, see page 114.

TM05 6316 4711

TM05 5142 3312

MAGNA1 25-60 (N) PN 10

1 x 230 V, 50/60 Hz

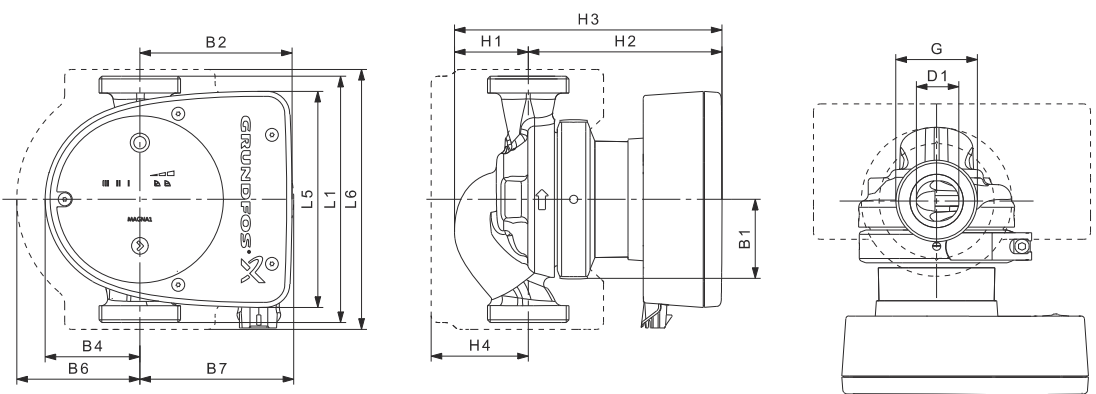


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	92	0.74

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
4.4	5.4	0.012



Pump type	Dimensions [mm]												(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G
MAGNA1 25-60 (N)	180	158	190	58	111	69	90	113	54	142	196	71	25	1 1/2

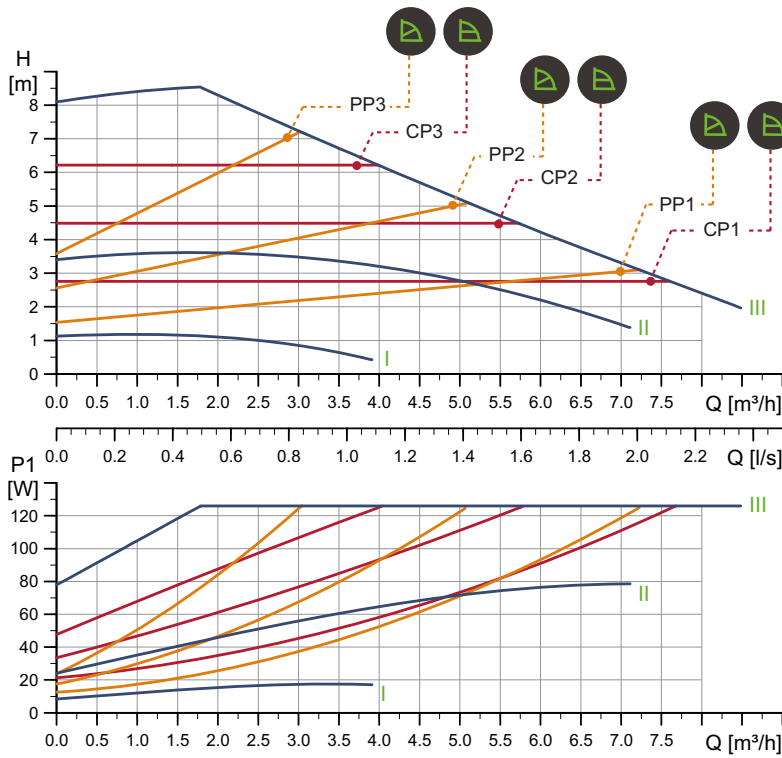
For product numbers, see page 114.

TM05 6318 4712

TM05 5142 3312

MAGNA1 25-80 (N) PN 10

1 x 230 V, 50/60 Hz

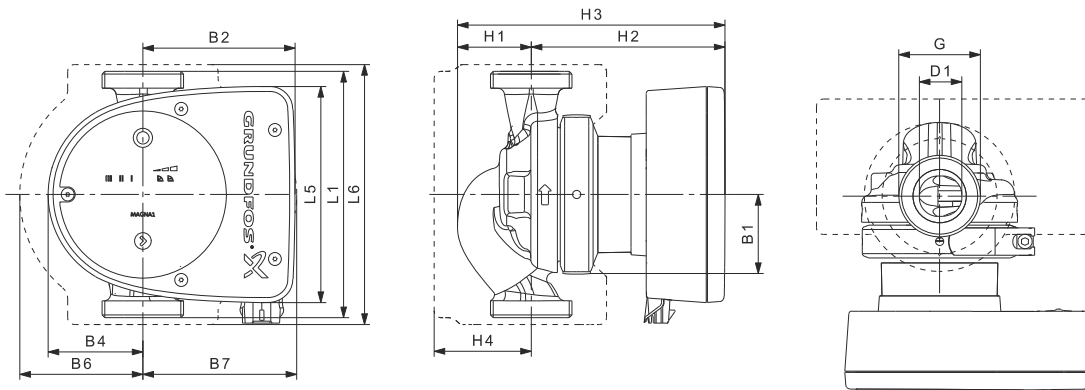


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	128	1.03

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
4.4	5.4	0.012



Pump type	Dimensions [mm]												(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G
MAGNA1 25-80 (N)	180	158	190	58	111	69	90	113	54	142	196	71	25	1 1/2

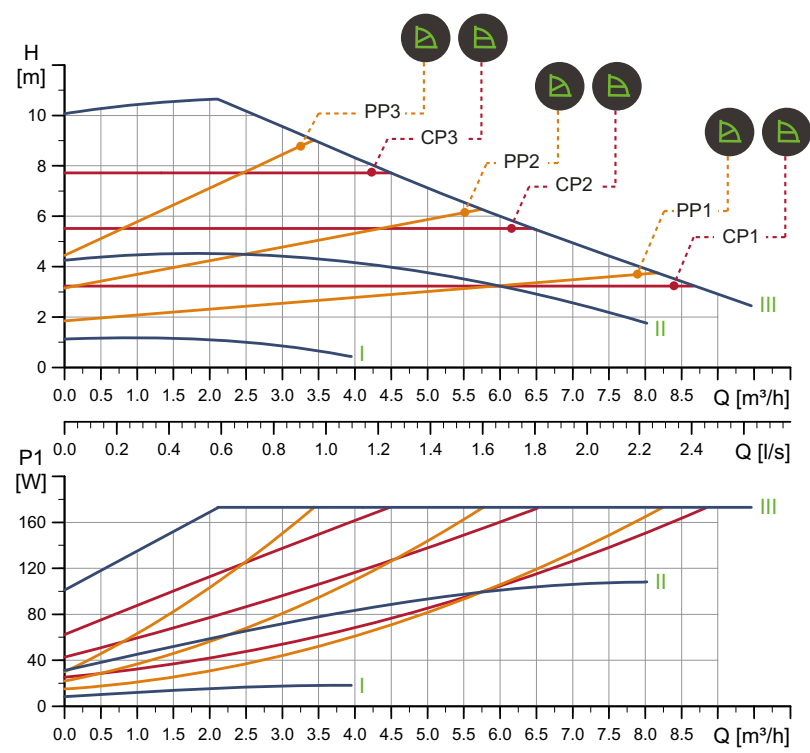
For product numbers, see page 114.

TM05 6320 4712

TM05 5142 3312

MAGNA1 25-100 (N) PN 10

1 x 230 V, 50/60 Hz

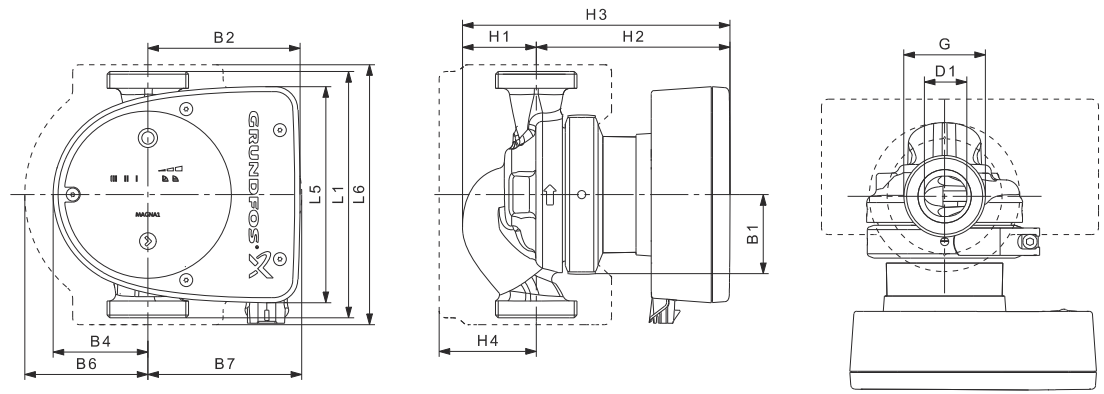


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	176	1.42

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
4.4	5.4	0.012



Pump type	Dimensions [mm]													(inch)
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G
MAGNA1 25-100 (N)	180	158	190	58	111	69	90	113	54	142	196	71	25	1 1/2

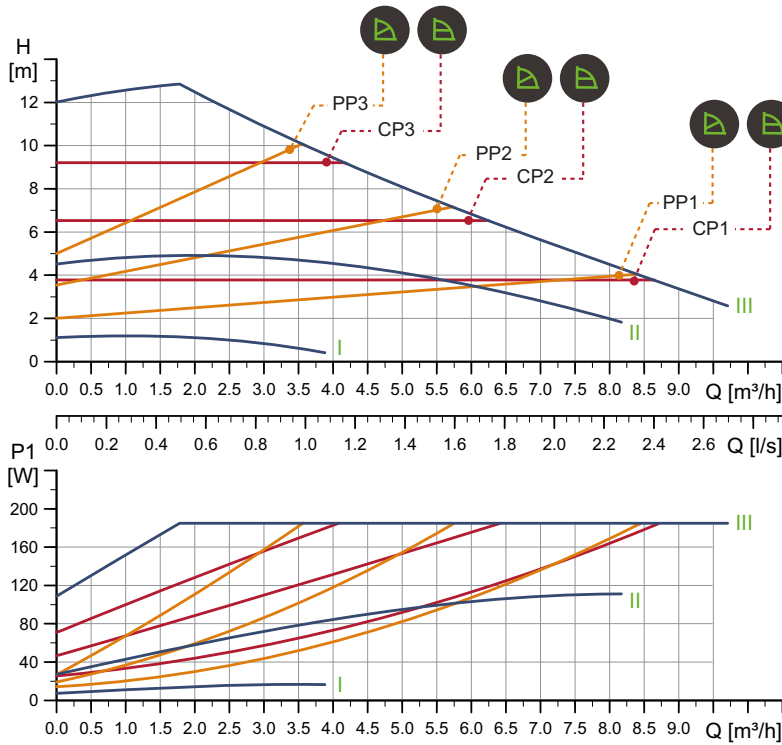
For product numbers, see page 114.

TM05 6322.4712

TM05 5142.3312

MAGNA1 25-120 (N)

1 x 230 V, 50/60 Hz

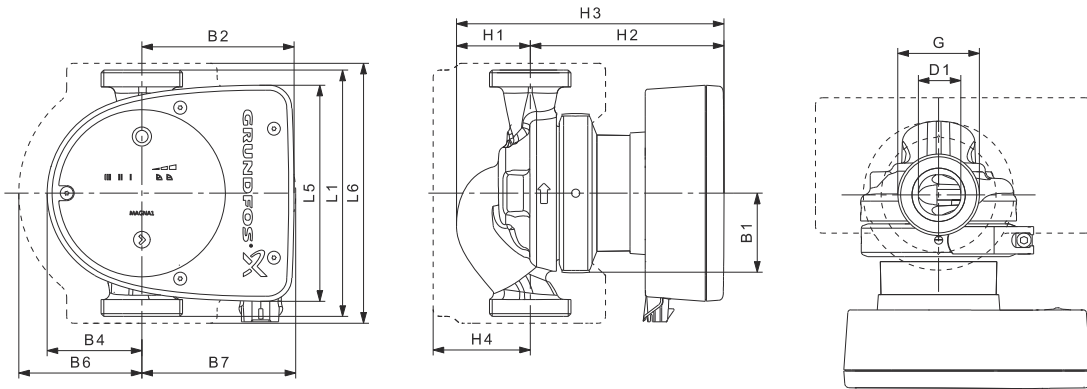


Speed	P1 [W]	I _{1/1} [A]
Min.	8	0.08
Max.	188	1.51

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
4.4	5.4	0.012



Pump type	Dimensions [mm]													(inch)
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G
MAGNA1 25-120 (N)	180	158	190	58	111	69	90	113	54	142	196	71	25	1 1/2

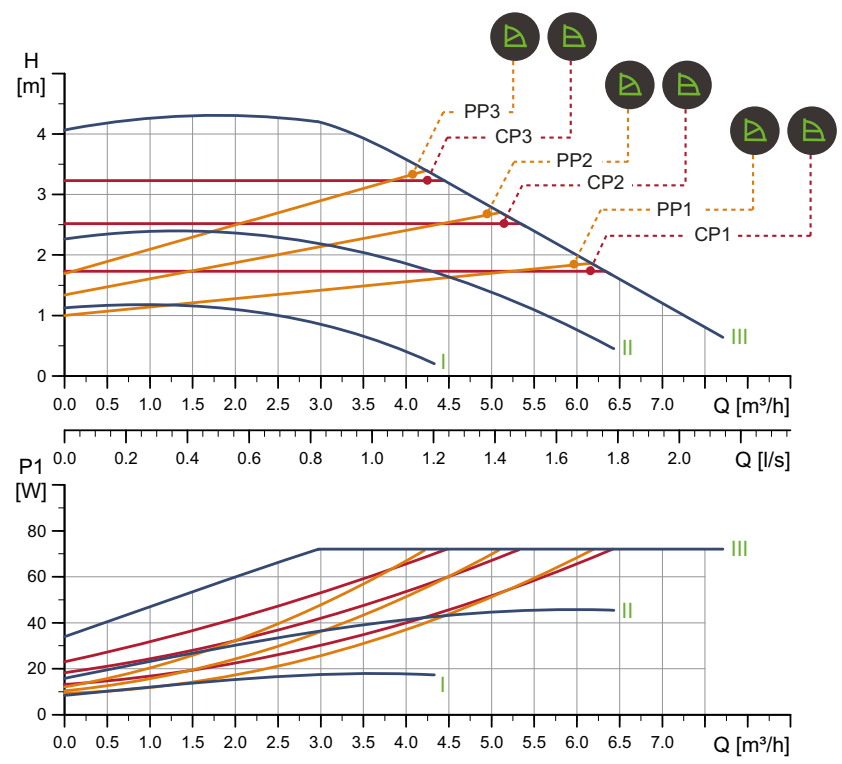
For product numbers, see page 114.

TM05 6324 4712

TM05 5142 3312

MAGNA1 32-40 (N) PN 10

1 x 230 V, 50/60 Hz



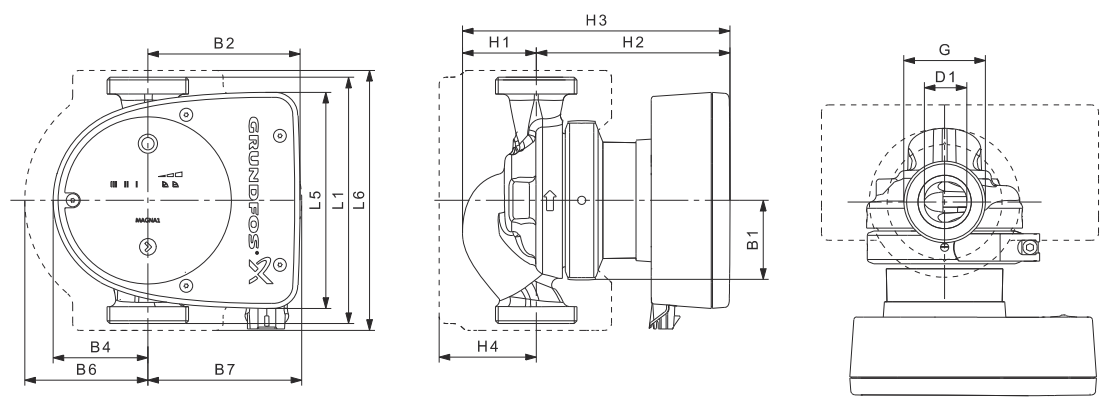
TM05 6325 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	73	0.59

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
4.4	5.4	0.012



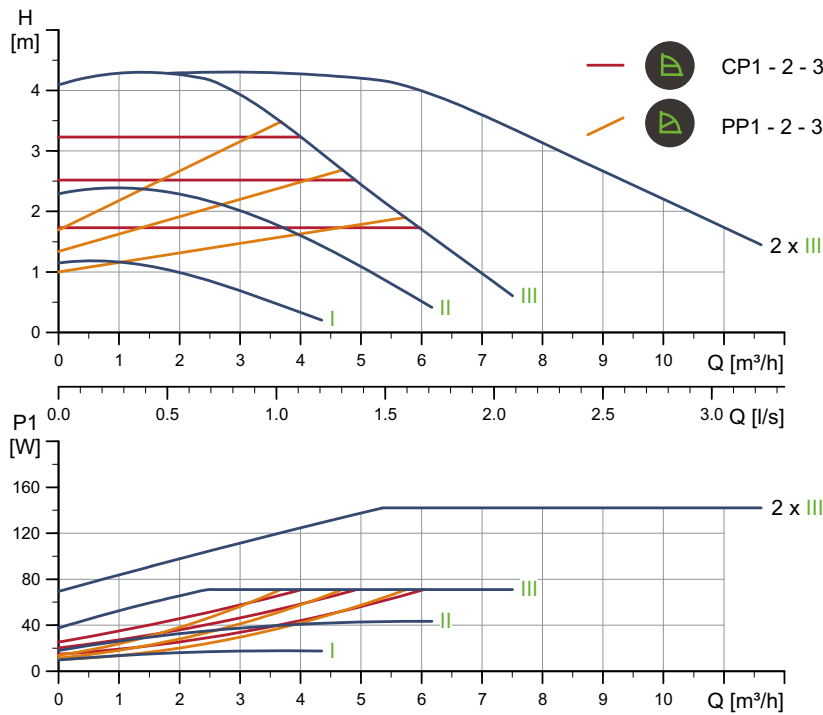
TM05 5142 3312

Pump type	Dimensions [mm]													(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G	
MAGNA1 32-40 (N)	180	158	190	58	111	69	90	113	54	142	196	71	32	2	

For product numbers, see page 114.

MAGNA1 D 32-40 PN 10

1 x 230 V, 50/60 Hz

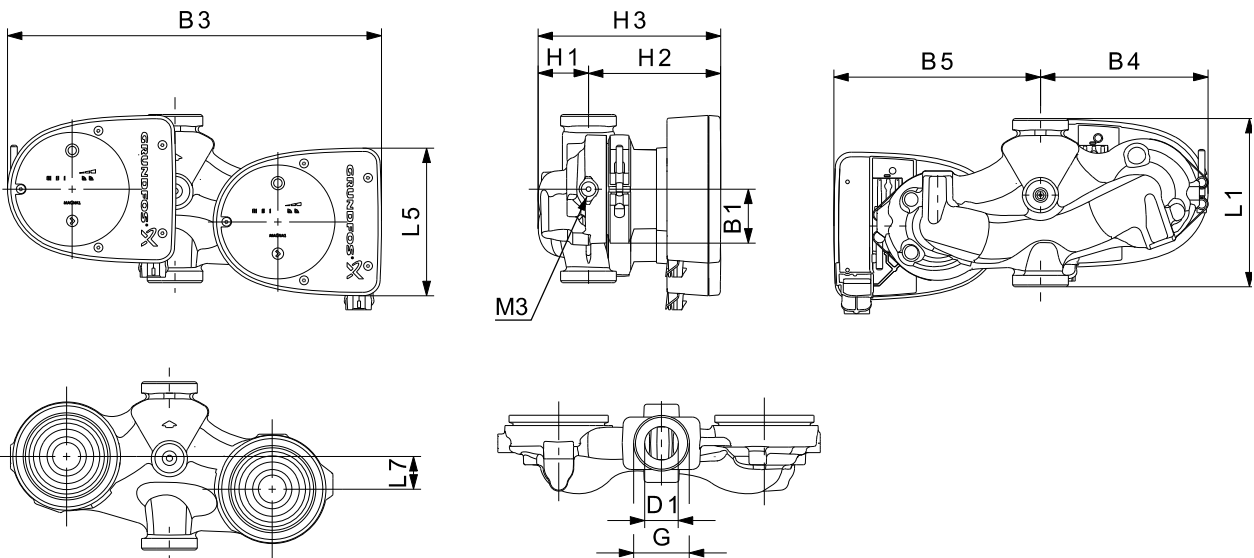


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	73	0.59

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
12.4	13.4	0.045



Pump type	Dimensions [mm]											(inch)		
	L1	L5	L7	B1	B3	B4	B5	H1	H2	H3	D1	G	M3	
MAGNA1 D 32-40	180	158	35	58	400	179	221	54	142	196	32	2	1/4	

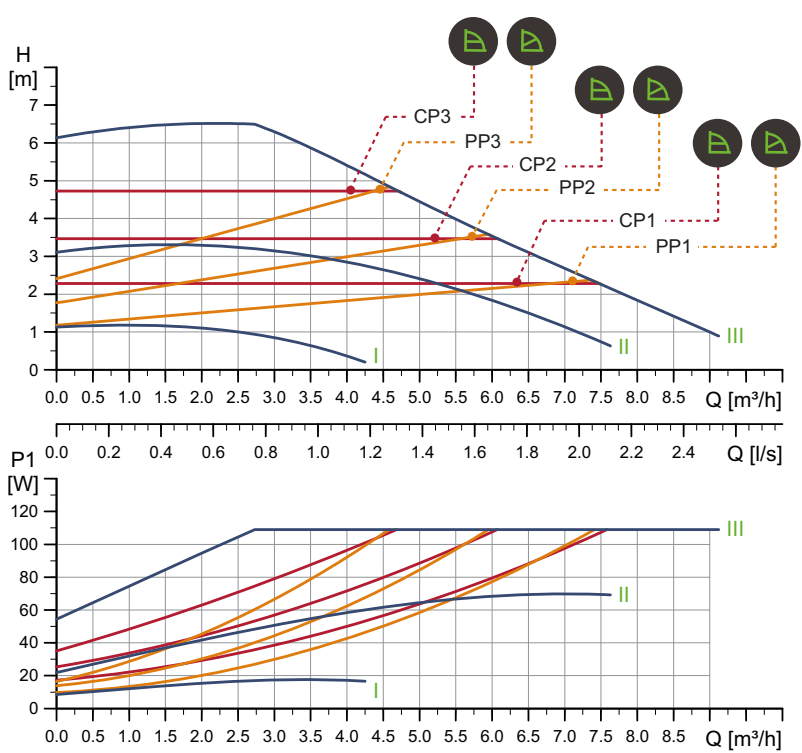
For product numbers, see page 114.

TM05 6363 4712

TM05 5201 3412

MAGNA1 32-60 (N) PN 10

1 x 230 V, 50/60 Hz

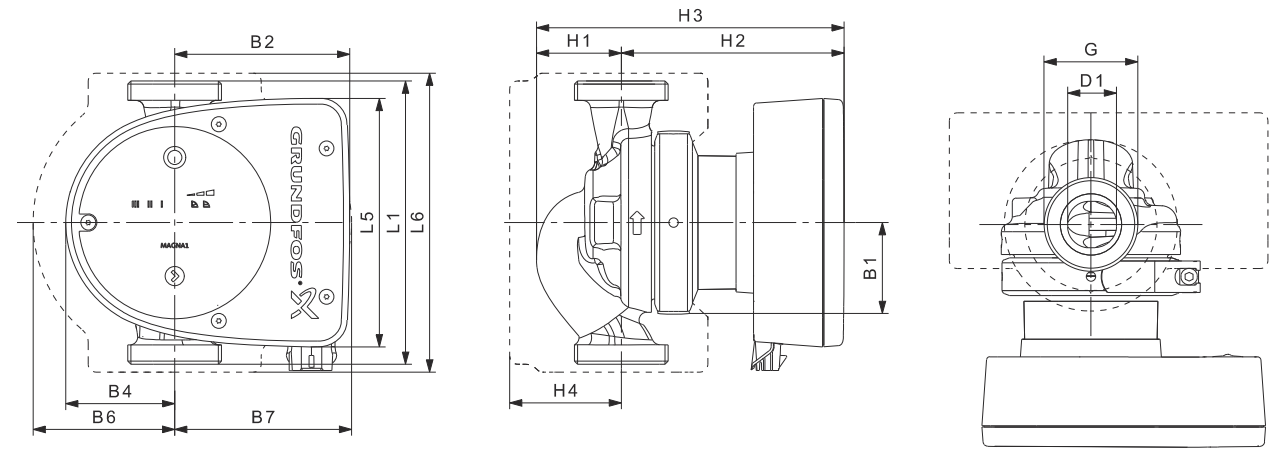


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	111	0.9

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
4.4	5.4	0.012



Pump type	Dimensions [mm]												(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G
MAGNA1 32-60 (N)	180	158	190	58	111	69	90	113	54	142	196	71	32	2

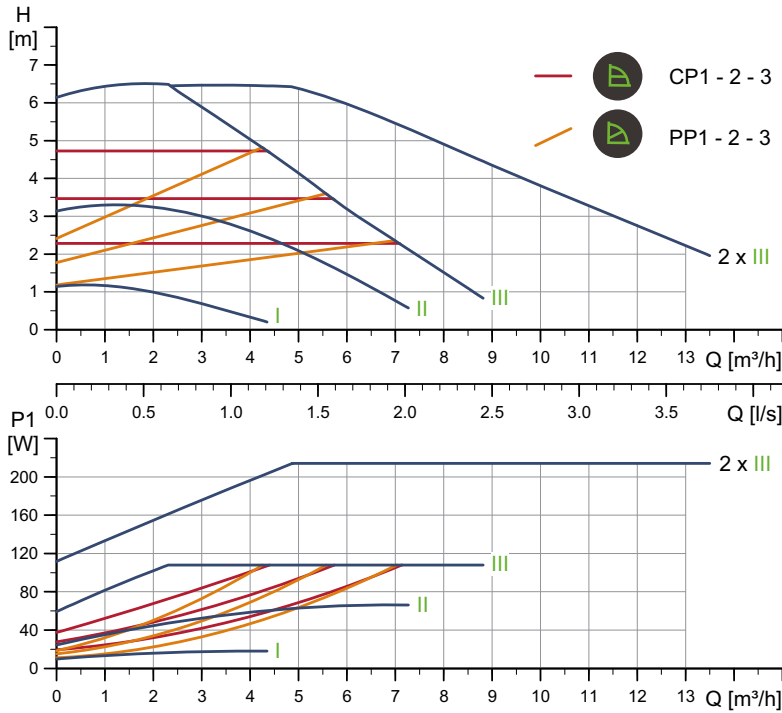
For product numbers, see page 114.

TM05 6327 4712

TM05 5142 3312

MAGNA1 D 32-60 PN 10

1 x 230 V, 50/60 Hz

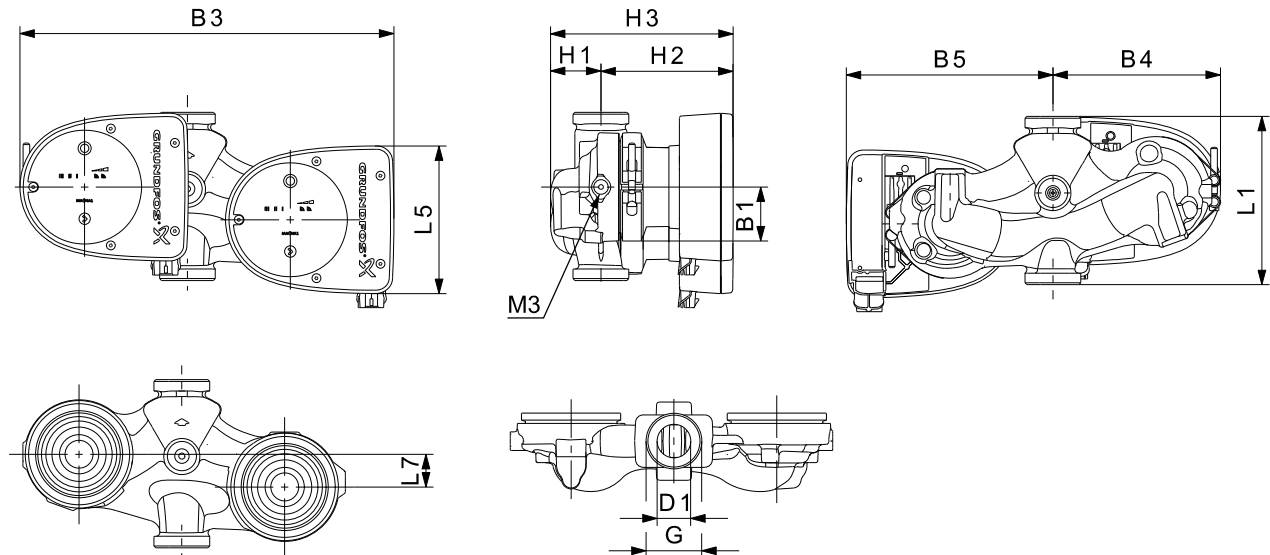


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	111	0.9

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
12.4	13.4	0.045



Pump type	Dimensions [mm]											(inch)	
	L1	L5	L7	B1	B3	B4	B5	H1	H2	H3	D1	G	M3
MAGNA1 D 32-60	180	158	35	58	400	179	221	54	142	196	32	2	1/4

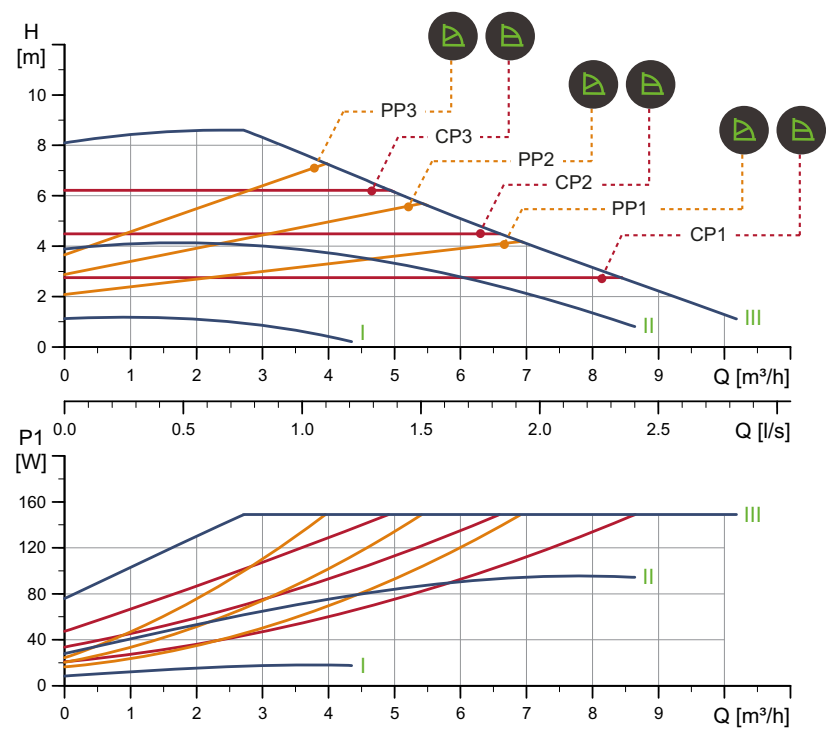
For product numbers, see page 114.

TM05 6365 4712

TM05 5201 3412

MAGNA1 32-80 (N) PN 10

1 x 230 V, 50/60 Hz

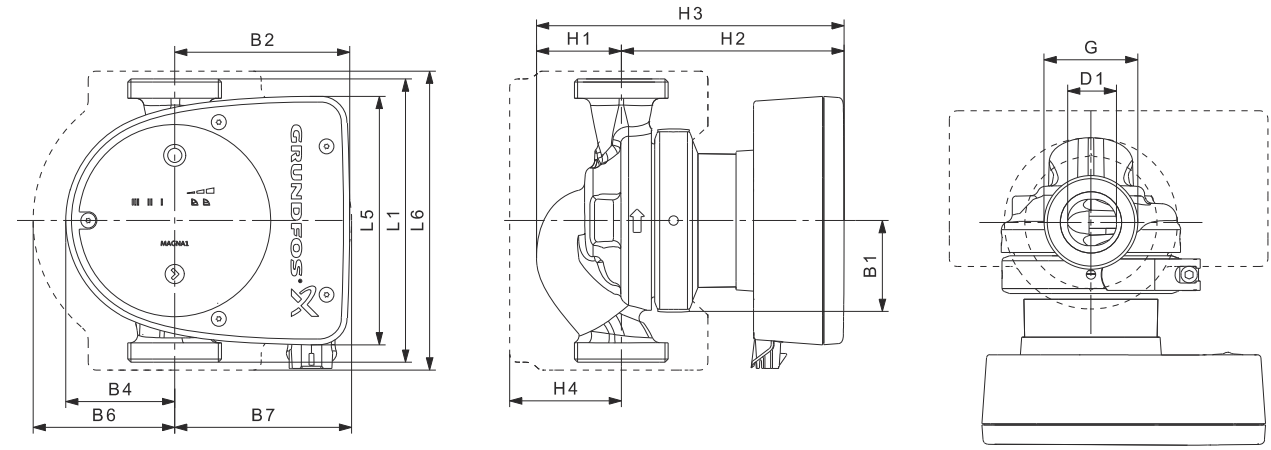


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	151	1.22

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
4.4	5.4	0.012



Pump type	Dimensions [mm]												(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G
MAGNA1 32-80 (N)	180	158	190	58	111	69	90	113	54	142	196	71	32	2

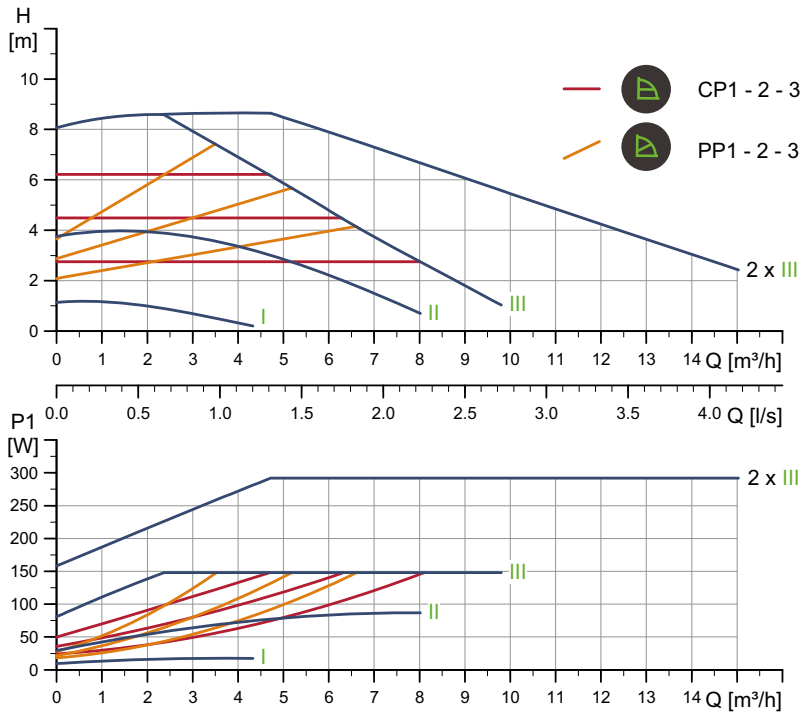
For product numbers, see page 114.

TM05 6329 4712

TM05 5142 3312

MAGNA1 D 32-80 PN 10

1 x 230 V, 50/60 Hz

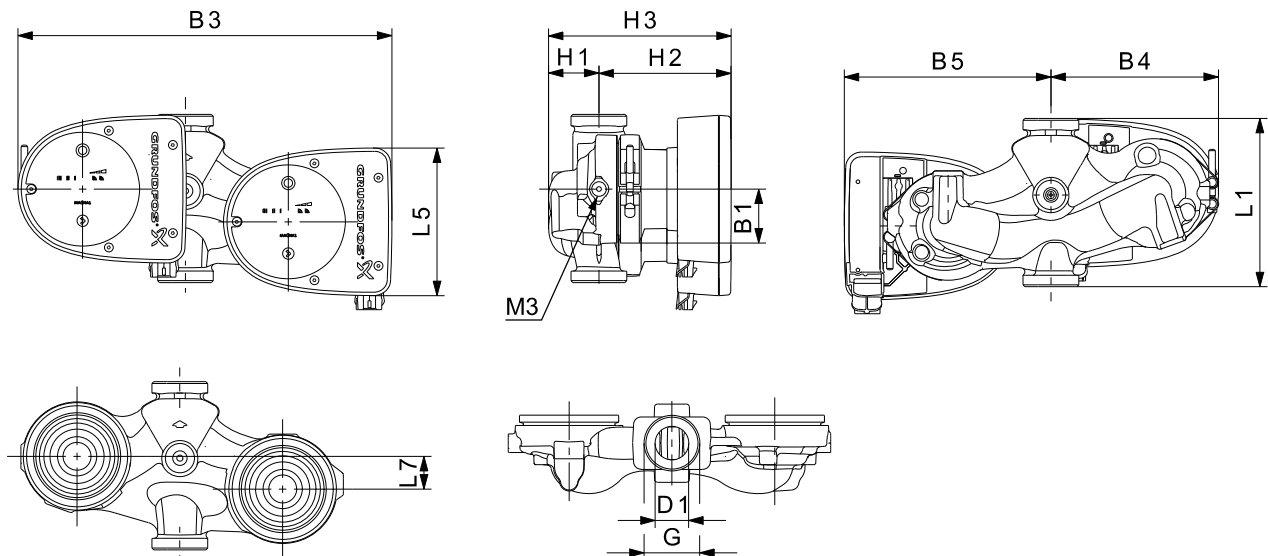


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	151	1.22

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
12.4	13.4	0.045



Pump type	Dimensions [mm]										(inch)		
	L1	L5	L7	B1	B3	B4	B5	H1	H2	H3	D1	G	M3
MAGNA1 D 32-80	180	158	35	58	400	179	221	54	142	196	32	2	1/4

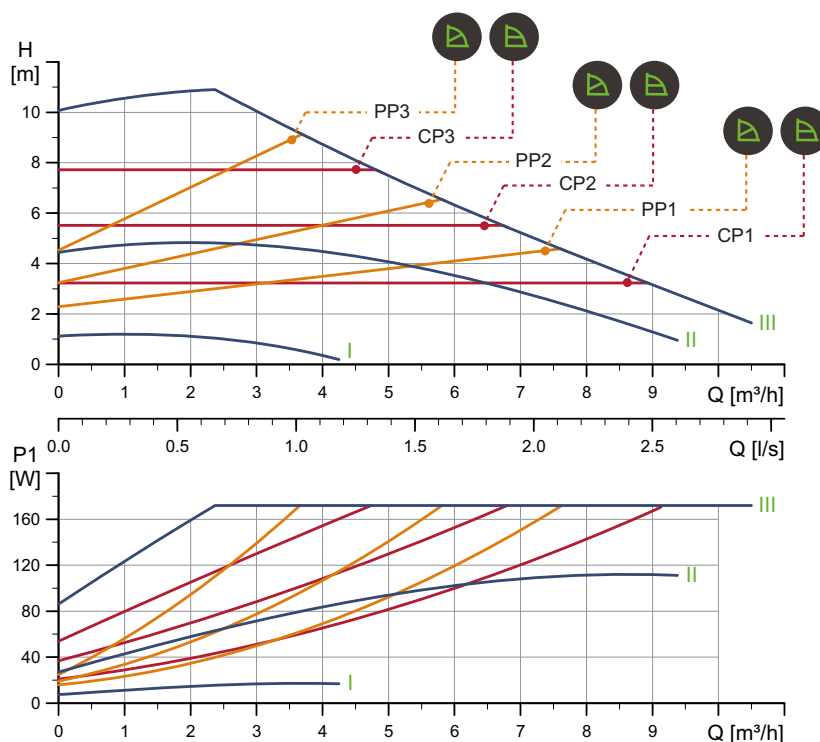
For product numbers, see page 114.

TM05 6367 4712

TM05 5201 3412

MAGNA1 32-100 (N)

1 x 230 V, 50/60 Hz



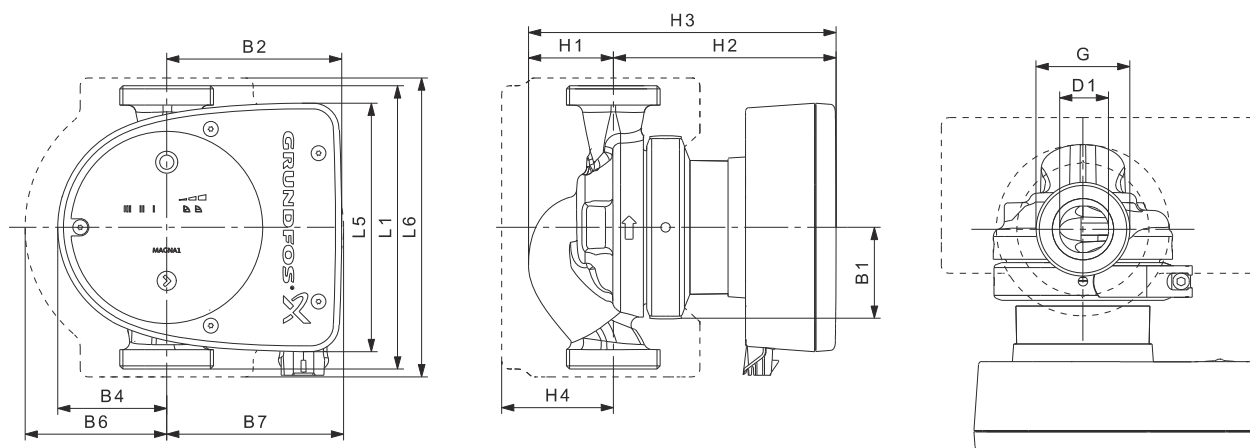
TM05 6331 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	8	0.08
Max.	175	1.41

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
4.4	5.4	0.012



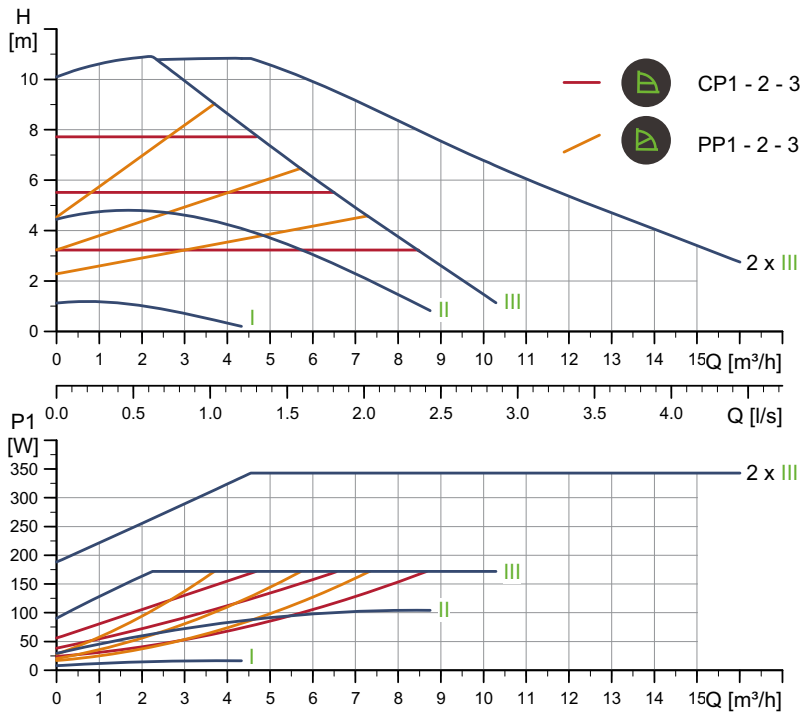
TM05 5142 3312

Pump type	Dimensions [mm]													(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G	
MAGNA1 32-100 (N)	180	158	190	58	111	69	90	113	54	142	196	71	32	2	

For product numbers, see page 114.

MAGNA1 D 32-100

1 x 230 V, 50/60 Hz

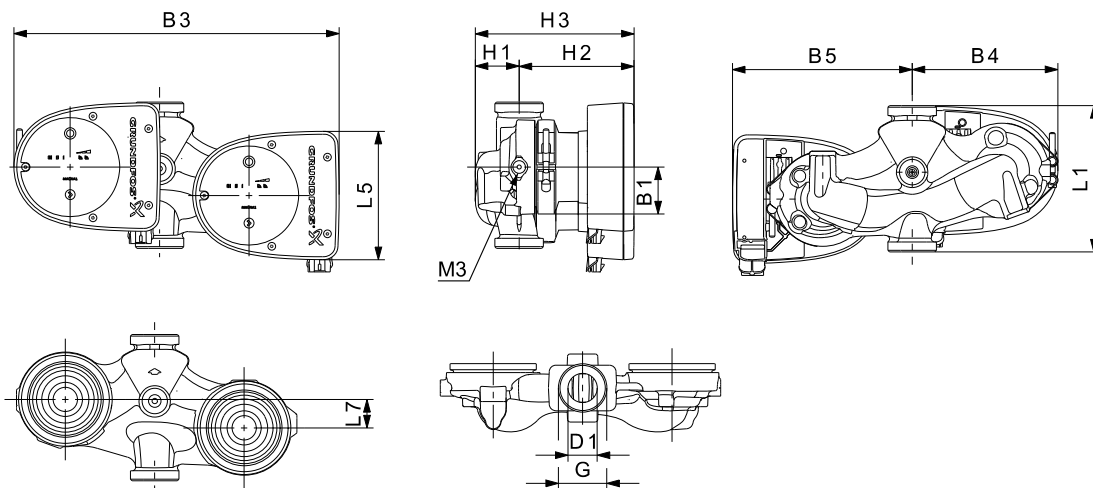


Speed	P1 [W]	I _{1/1} [A]
Min.	8	0.08
Max.	175	1.41

Connections: See [Pipe connections](#), page 124.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
12.4	13.4	0.045



Pump type	Dimensions [mm]											(inch)		
	L1	L5	L7	B1	B3	B4	B5	H1	H2	H3	D1	G	M3	
MAGNA1 D 32-100	180	158	35	58	400	179	221	54	142	196	32	2	1/4	

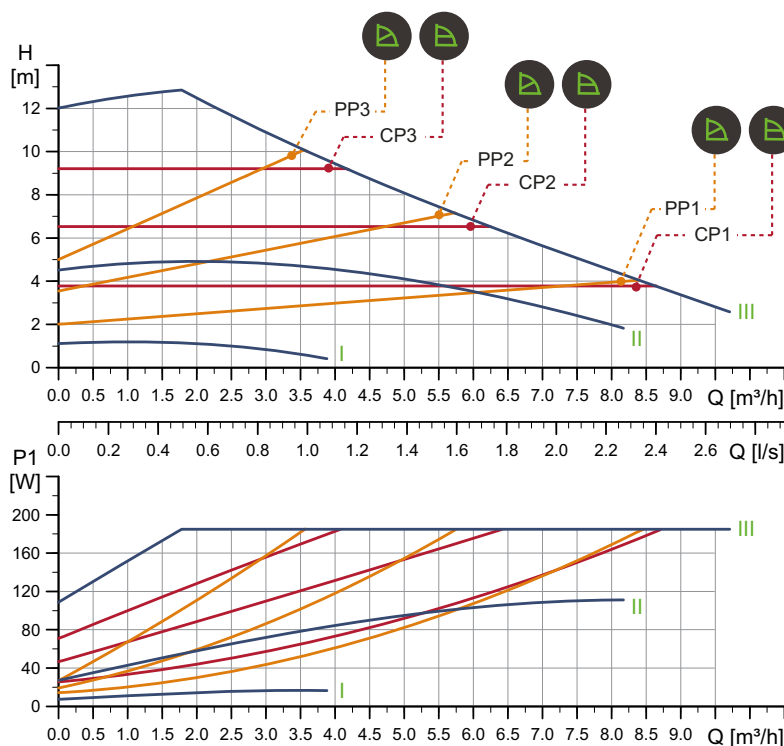
For product numbers, see page 130.

TM05 6369 4712

TM05 5201 3412

MAGNA1 32-120 (N)

1 x 230 V, 50/60 Hz

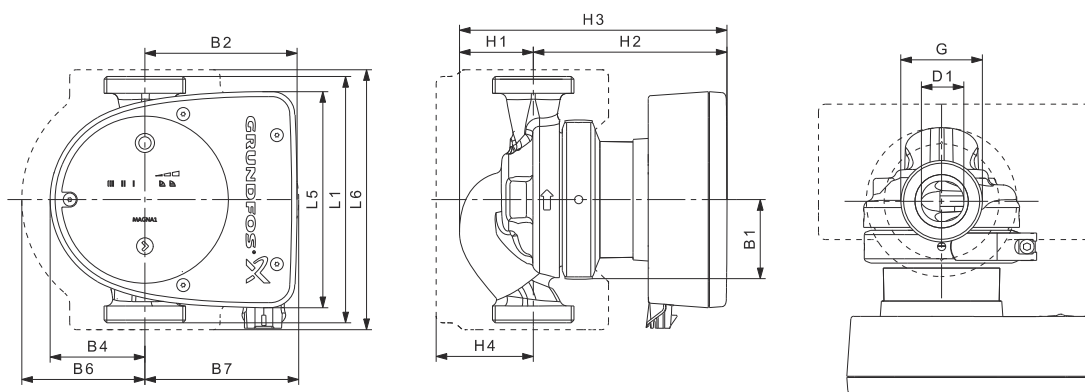


Speed	P1 [W]	I _{1/1} [A]
Min.	8	0.08
Max.	188	1.51

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
4.4	5.4	0.012



Pump type	Dimensions [mm]													(inch)	
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	G	
MAGNA1 32-120 (N)	180	158	190	58	111	69	90	113	54	142	196	71	32	2	

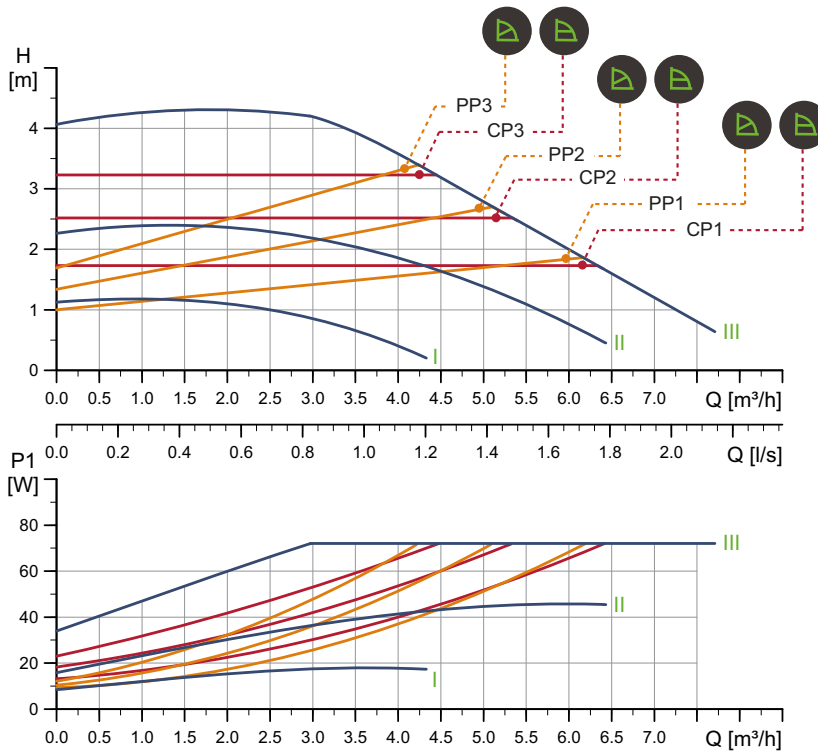
For product numbers, see page 114.

TM05 6324 4712

TM05 5142 3312

MAGNA1 32-40 F (N) PN 10

1 x 230 V, 50/60 Hz

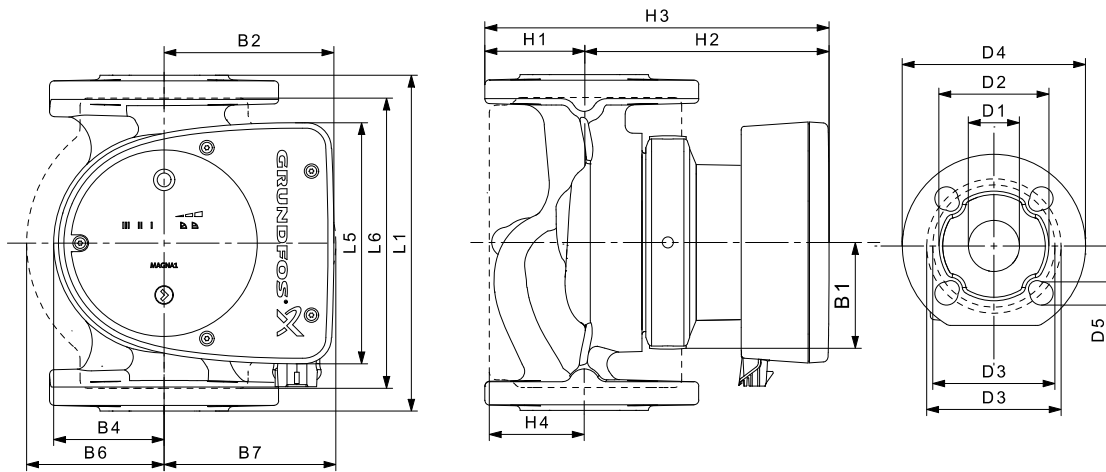


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	73	0.59

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
7.4	8.4	0.016



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 32-40 F (N)	220	158	220	58	111	69	100	110	65	142	207	82	32	76	90/100	140	14/19

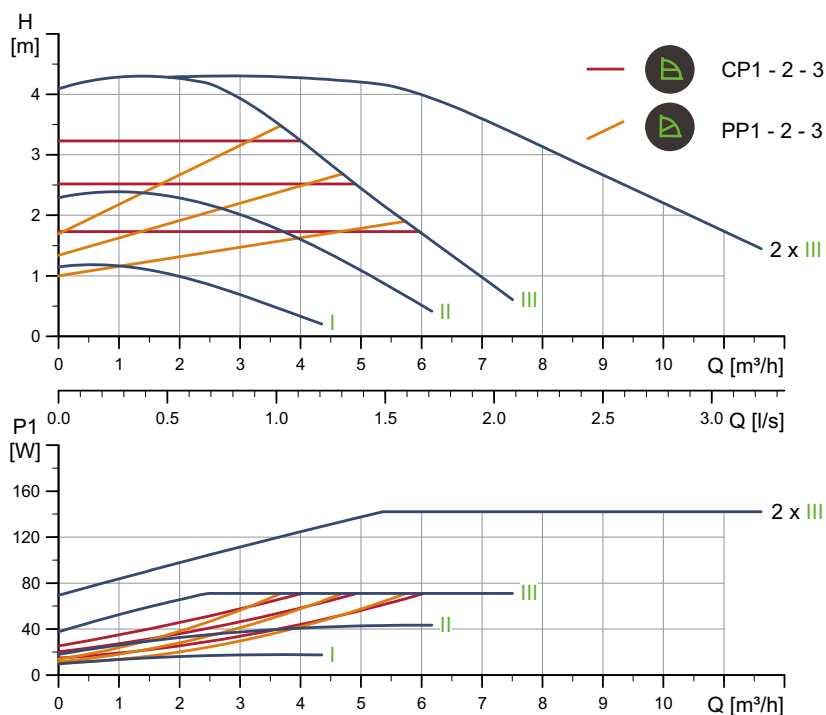
For product numbers, see page 114.

TM05 6325 4712

TM05 5200 3412

MAGNA1 D 32-40 F PN 10

1 x 230 V, 50/60 Hz



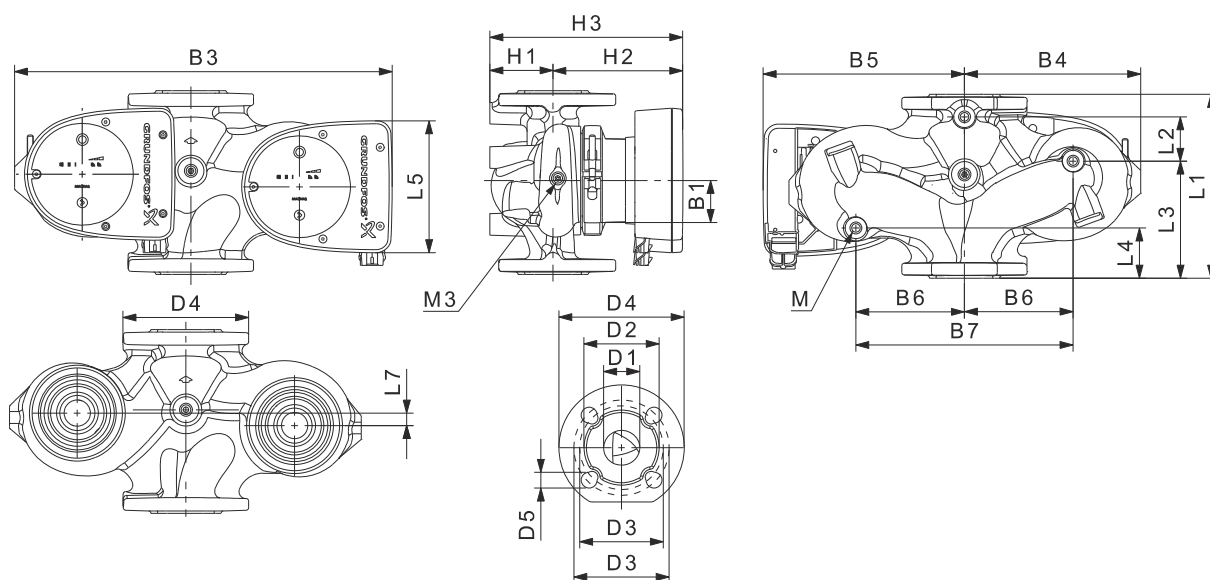
TM05 6363 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	73	0.59

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
14.7	15.7	0.045



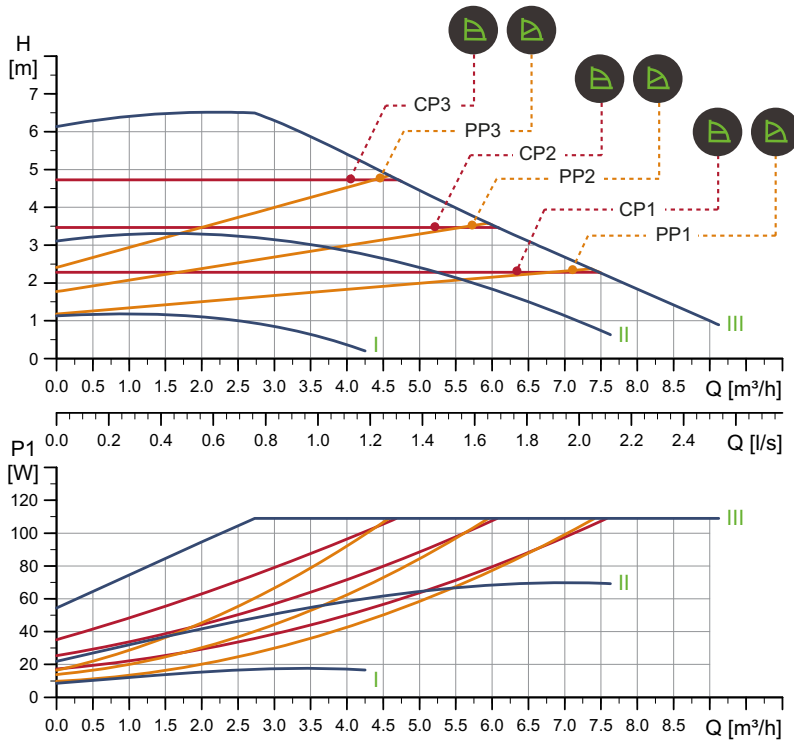
TM05 4960 3012

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5		M
MAGNA1 D 32-40 F	220	73	120	85	158	35	58	400	179	221	130	260	69	142	211	32	76	90/100	140	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 32-60 F (N) PN 10

1 x 230 V, 50/60 Hz

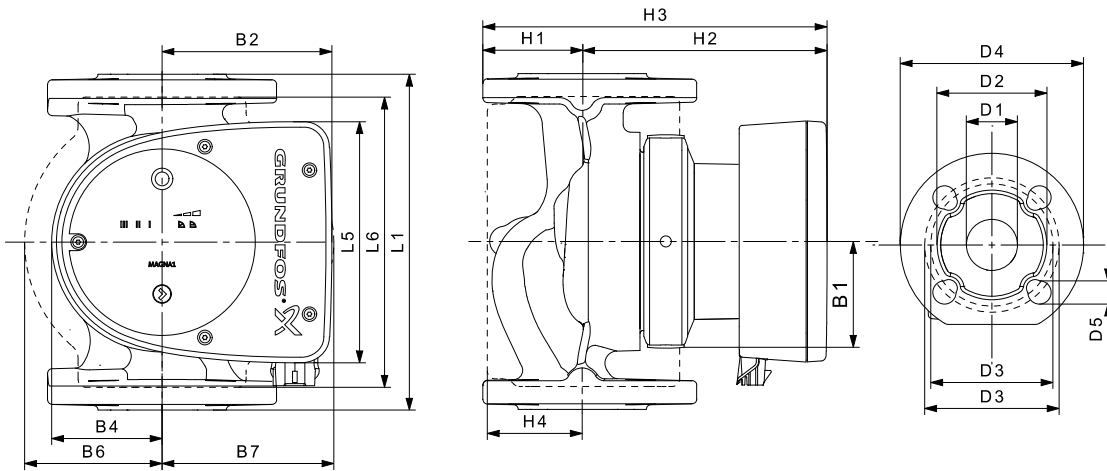


Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	111	0.90

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
7.4	8.4	0.016



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 32-60 F (N)	220	158	220	58	111	69	100	110	65	142	207	82	32	76	90/100	140	14/19

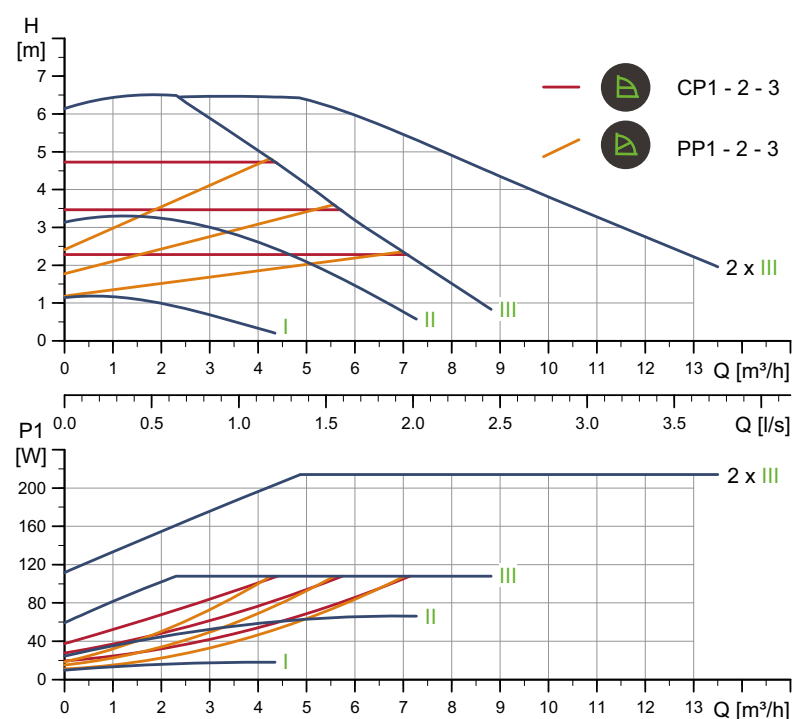
For product numbers, see page 114.

TM05 6327 4712

TM05 5200 3412

MAGNA1 D 32-60 F PN 10

1 x 230 V, 50/60 Hz



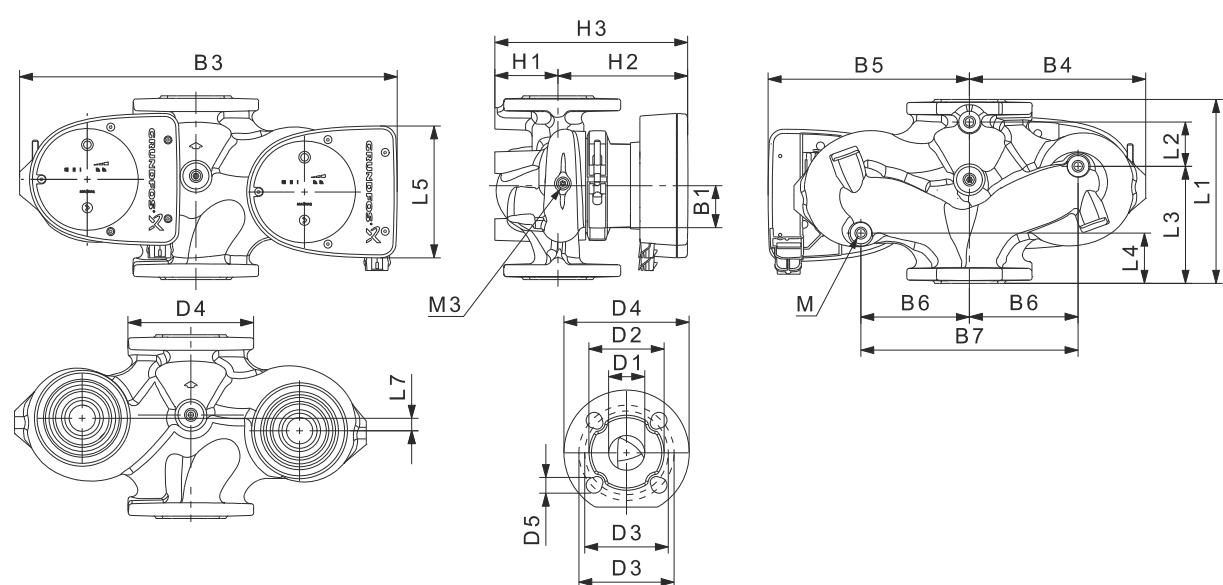
TM05 6365 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	111	0.90

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
14.7	15.7	0.045



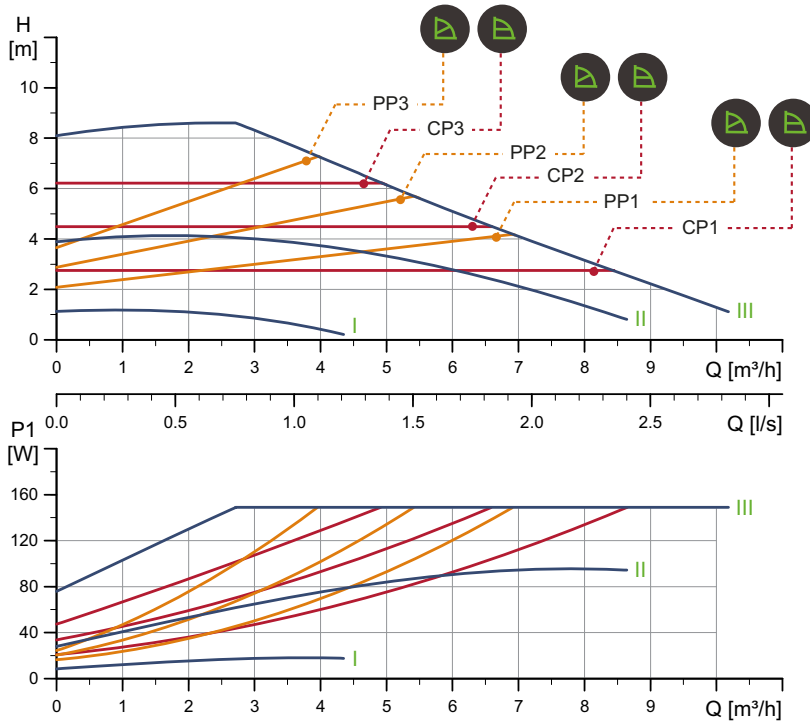
TM05 4960 3012

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5		M
MAGNA1 D 32-60 F	220	73	120	85	158	35	58	400	179	221	130	260	69	142	211	32	76	90/100	140	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 32-80 F (N) PN 10

1 x 230 V, 50/60 Hz



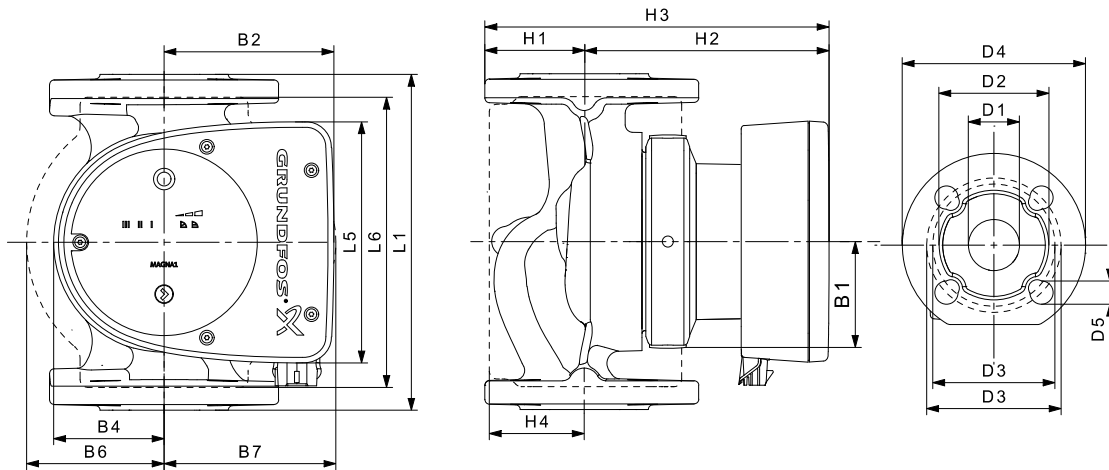
TM05 6329 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	151	1.22

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
7.4	8.4	0.016

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

The pump incorporates overload protection.



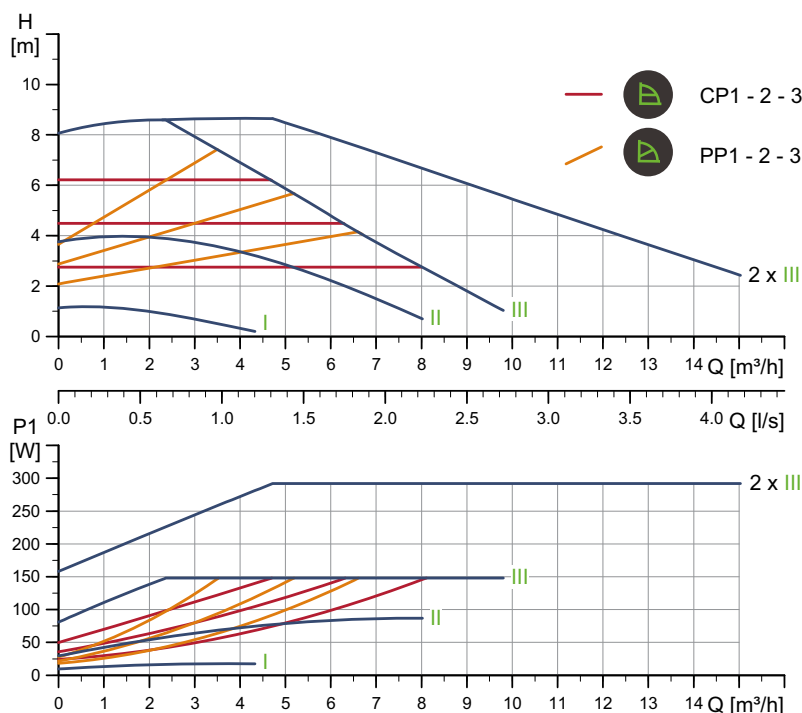
TM05 5200 3412

Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 32-80 F (N)	220	158	220	58	111	69	100	110	65	142	207	82	32	76	90/100	140	14/19

For product numbers, see page 114.

MAGNA1 D 32-80 F PN 10

1 x 230 V, 50/60 Hz



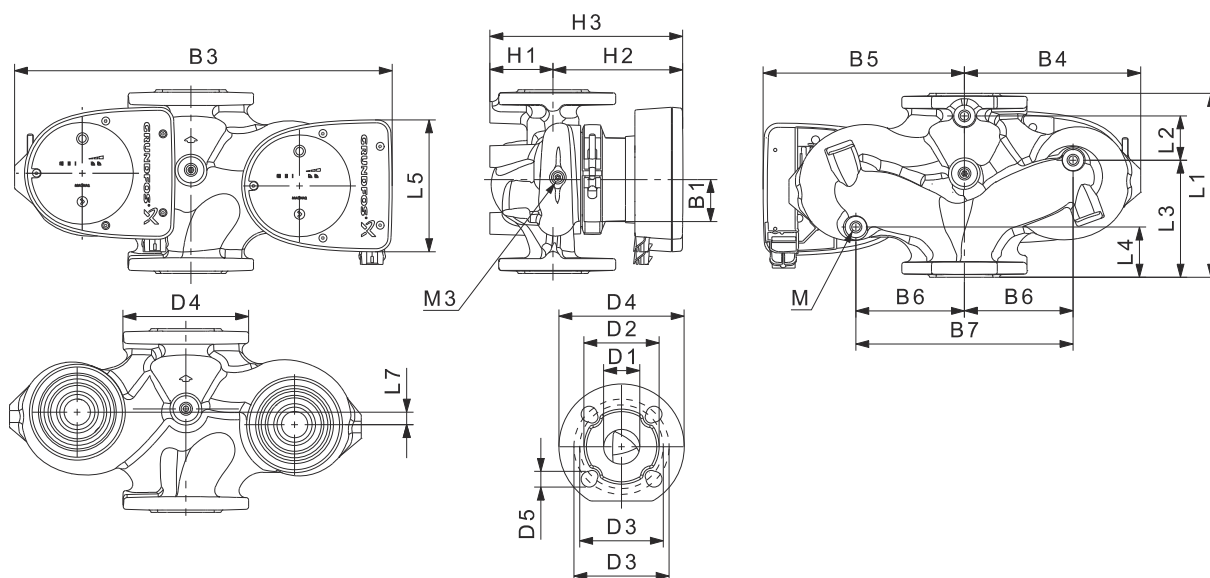
TM05 6367 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	9	0.09
Max.	151	1.22

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
14.7	15.7	0.045



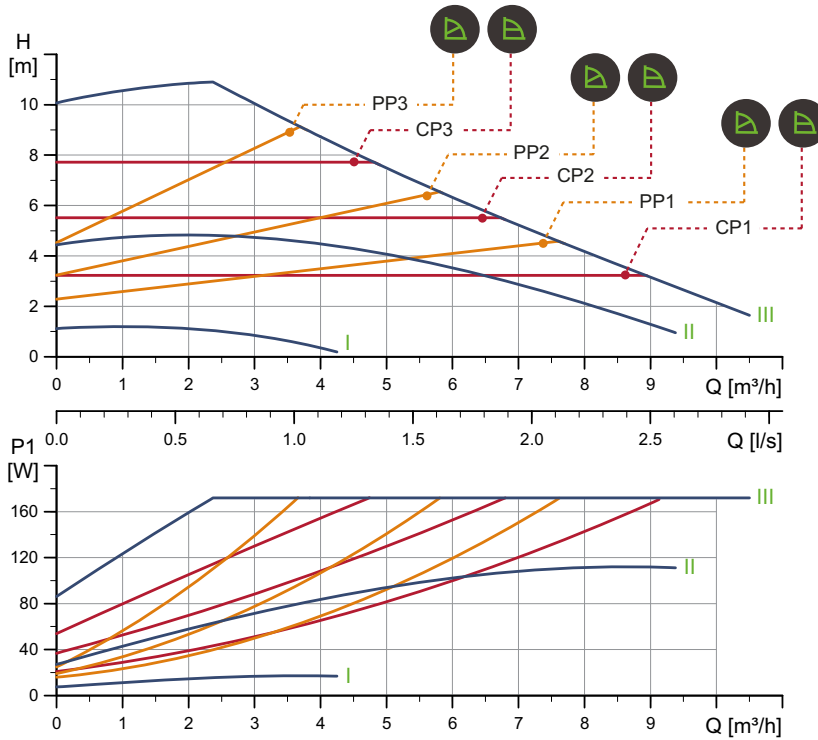
TM05 4960 3012

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5		M
MAGNA1 D 32-80 F	220	73	120	85	158	35	58	400	179	221	130	260	69	142	211	32	76	90/100	140	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 32-100 F (N)

1 x 230 V, 50/60 Hz



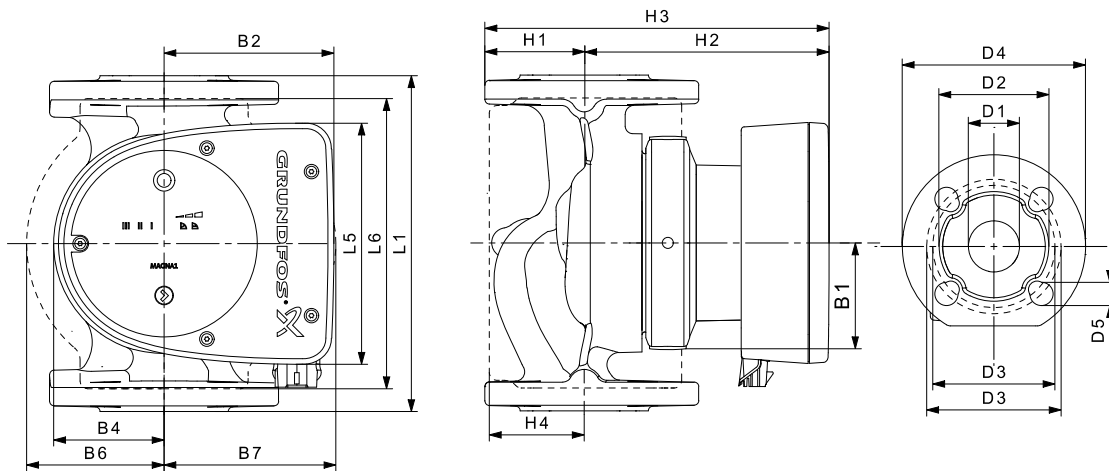
TM05 6331 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	8	0.08
Max.	175	1.41

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
7.4	8.4	0.016



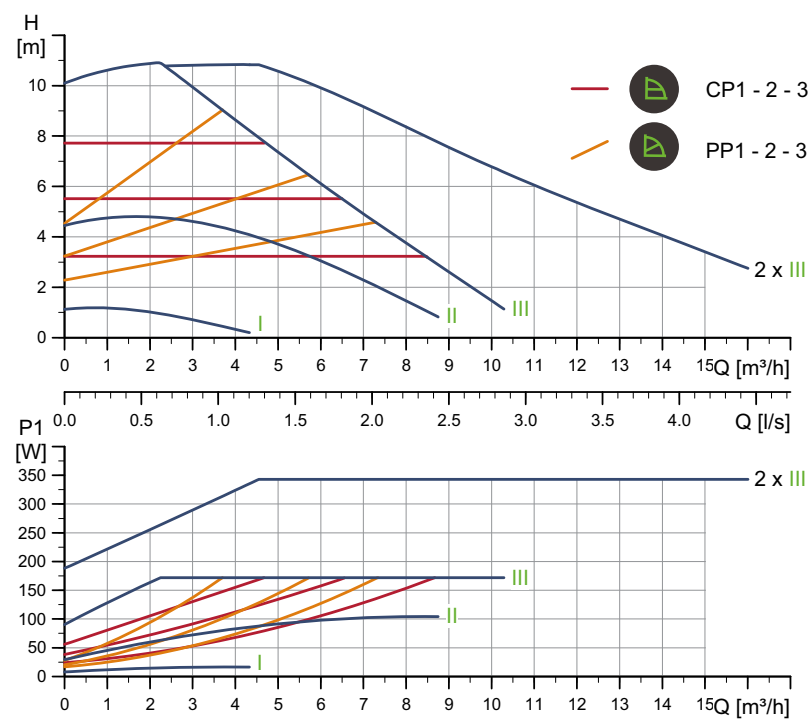
TM05 5200 3412

Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 32-100 F (N)	220	158	220	58	111	69	100	110	65	142	207	82	32	76	90/100	140	14/19

For product numbers, see page 114.

MAGNA1 D 32-100 F

1 x 230 V, 50/60 Hz

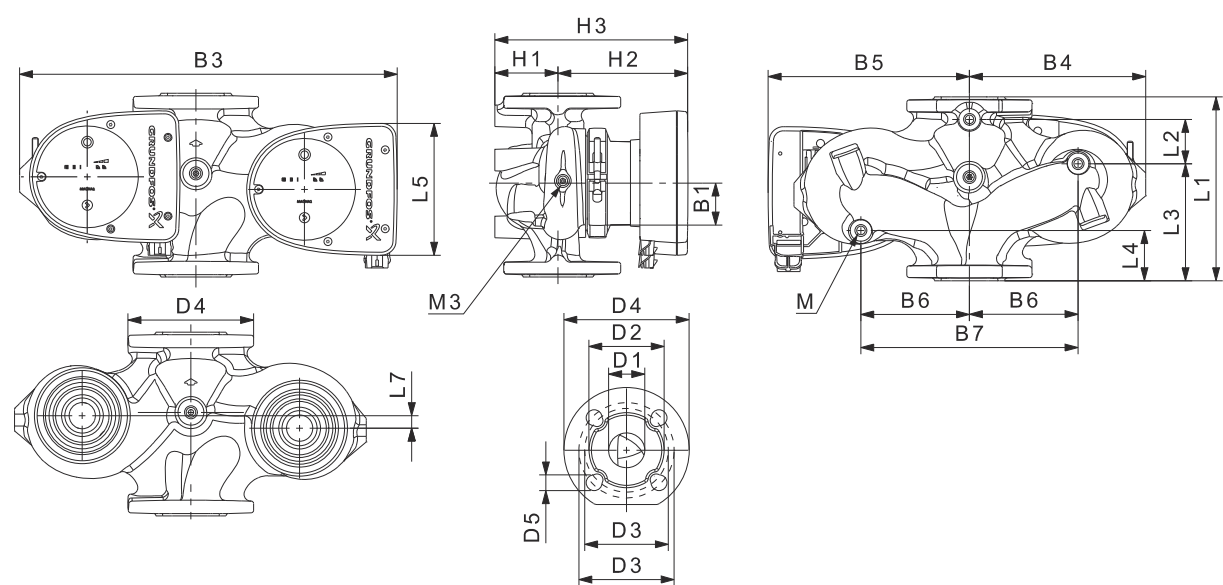


Speed	P1 [W]	I _{1/1} [A]
Min.	8	0.08
Max.	175	1.41

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
14.7	15.7	0.045



Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 32-100 F	220	73	120	85	158	35	58	400	179	221	130	260	69	142	211	32	76	90/100	140	14/19	12	1/4

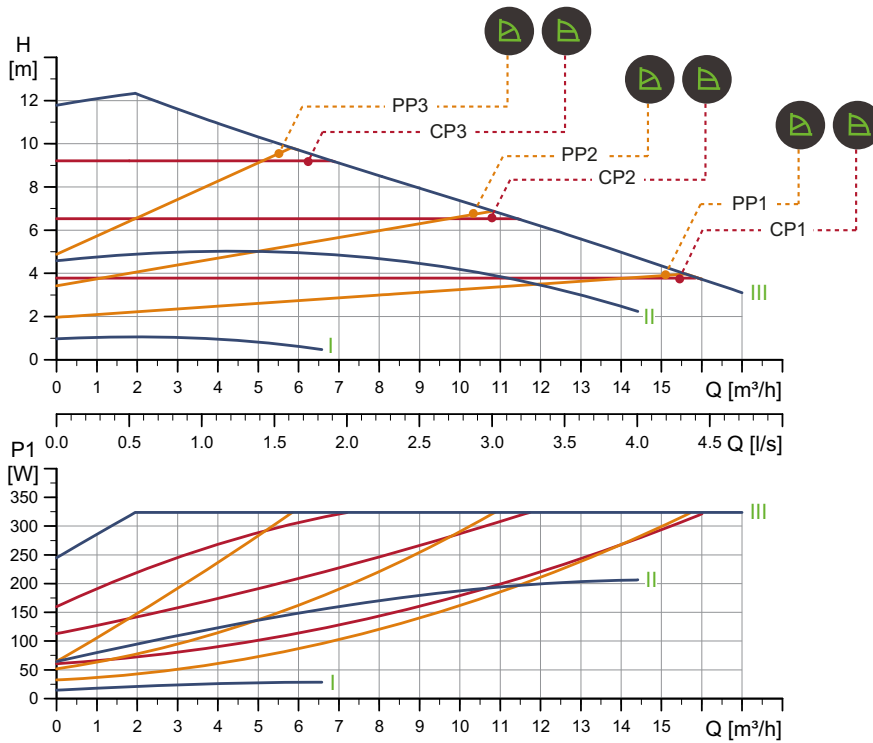
For product numbers, see page 114.

TM05 6369 4712

TM05 4960 3012

MAGNA1 32-120 F (N)

1 x 230 V, 50/60 Hz

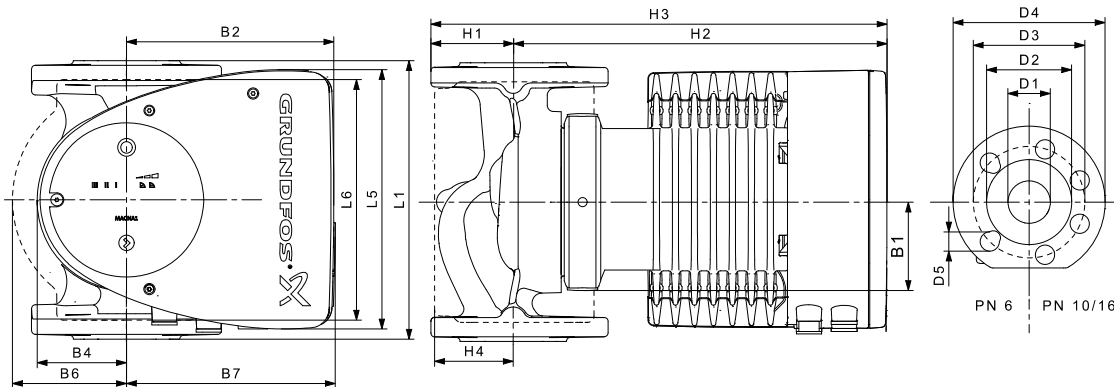


Speed	P1 [W]	I _{1/1} [A]
Min.	15	0.17
Max.	329	1.48

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
15.4	17.1	0.040



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 32-120 F (N)	220	204	216	84	164	73	106	116	65	301	366	86	32	76	90/100	140	14/19

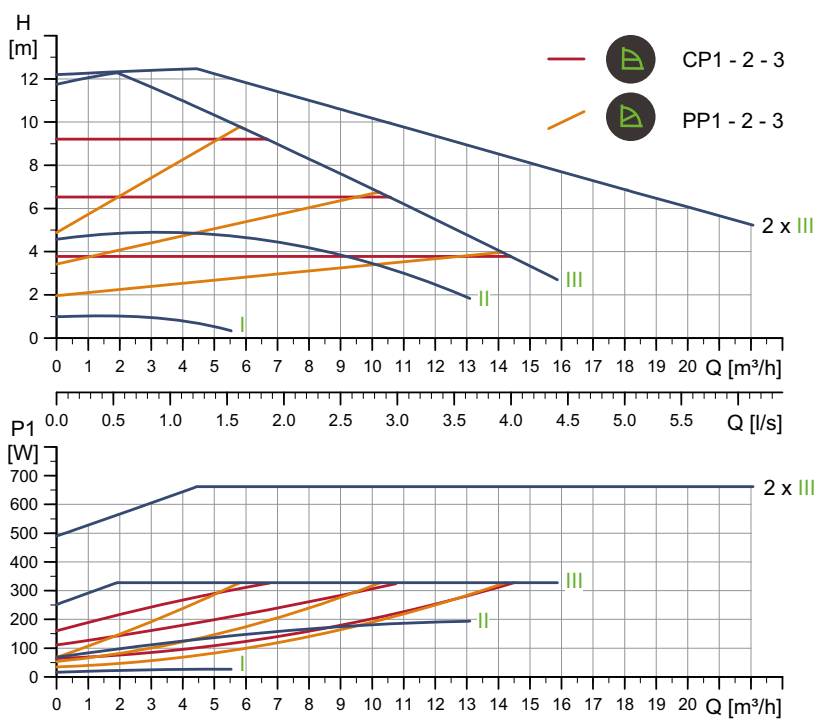
For product numbers, see page 114.

TM05 6387 4712

TM05 5200 3412

MAGNA1 D 32-120 F

1 x 230 V, 50/60 Hz

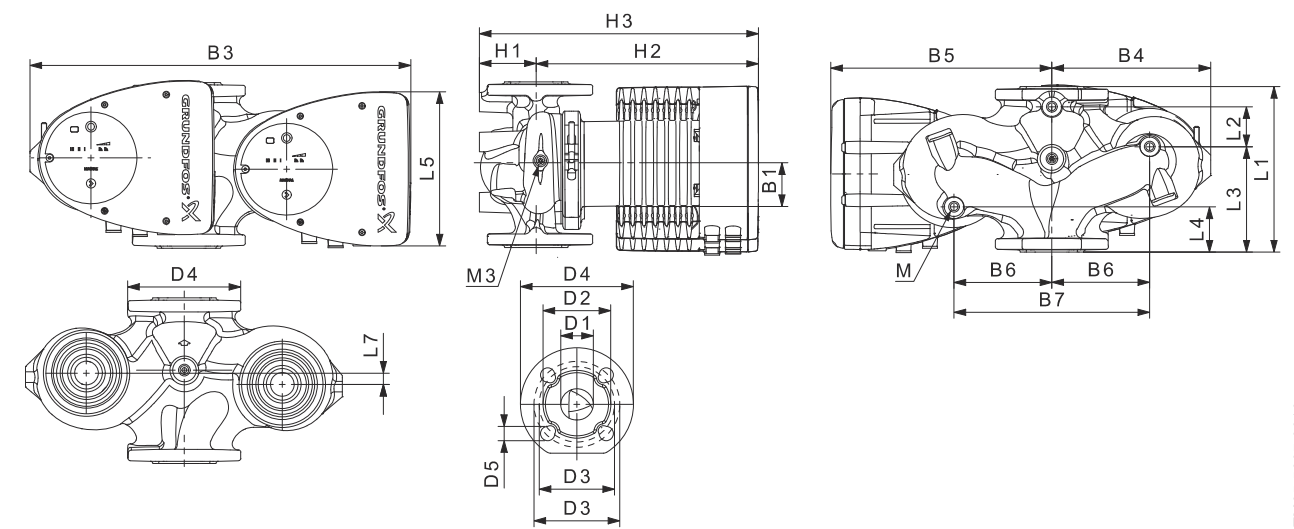


Speed	P1 [W]	I _{1/1} [A]
Min.	16.3	0.18
Max.	335	1.50

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
29.8	33.7	0.087



Pump type	Dimensions [mm]																		Rp			
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3		D4	D5	M
MAGNA1 D 32-120 F	220	97	90	50	204	50	84	502	210	294	130	260	68	300	368	32	76	90/100	140	14/19	12	1/4

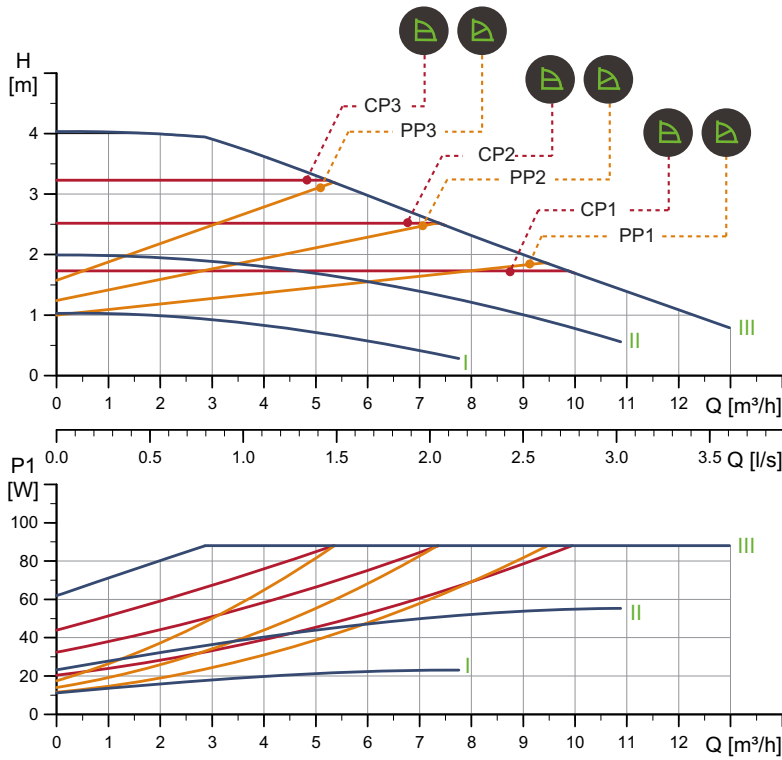
For product numbers, see page 114.

TM05 6334 4712

TM05 5937 3613

MAGNA1 40-40 F (N)

1 x 230 V, 50/60 Hz

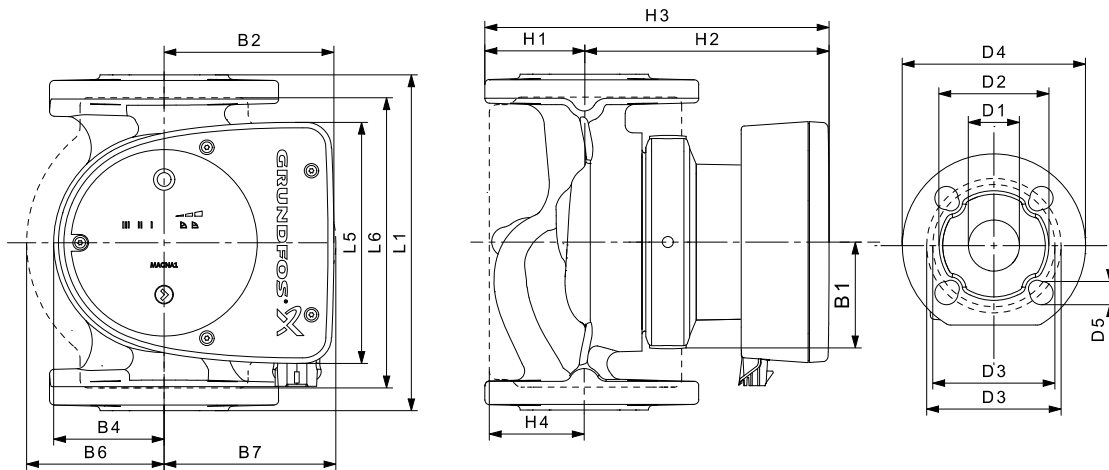


Speed	P1 [W]	I _{1/1} [A]
Min.	12	0.11
Max.	90	0.72

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
9.5	10.5	0.016



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 40-40 F (N)	220	158	220	58	111	69	105	105	65	156	221	83	40	84	100/110	150	14/19

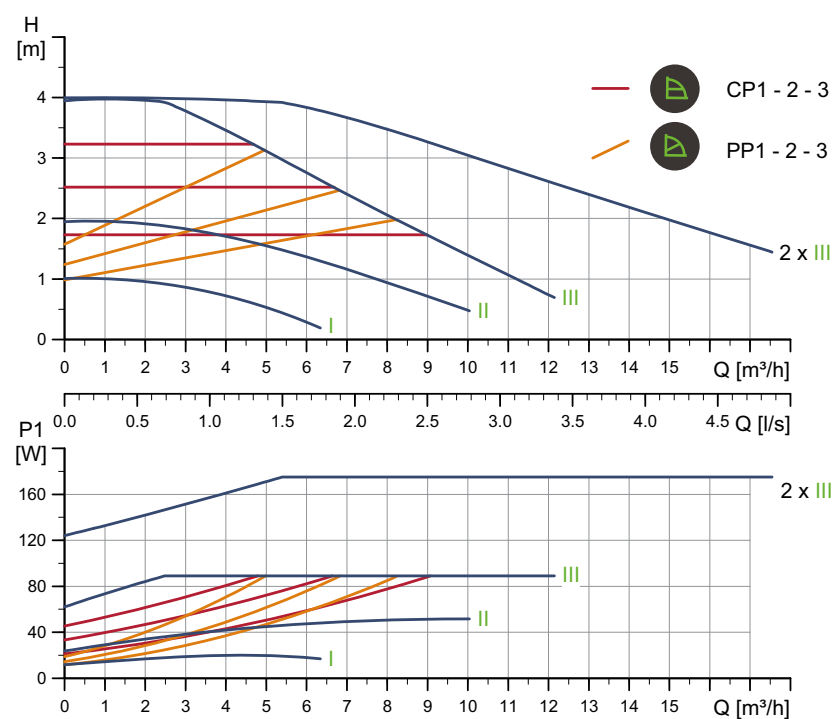
For product numbers, see page 114.

TM05 6332 4712

TM05 5200 3412

MAGNA1 D 40-40 F

1 x 230 V, 50/60 Hz



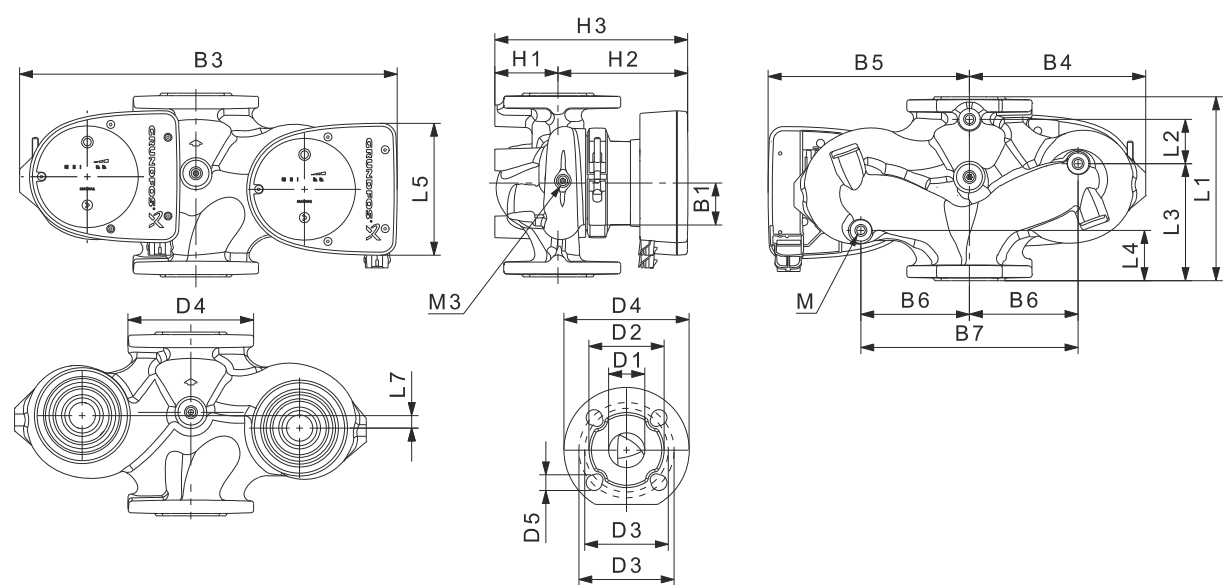
Speed	P1 [W]	I _{1/1} [A]
Min.	12	0.11
Max.	90	0.72

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
19.0	20.0	0.045

TM05 6370 4712



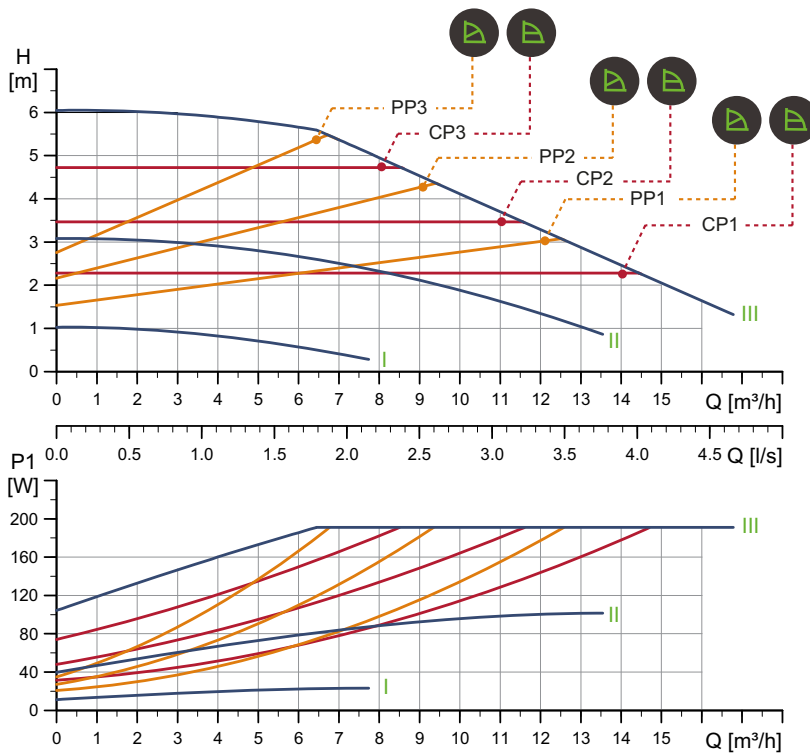
TM05 4960 3012

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 40-40 F	220	53	140	60	158	15	58	452	211	241	130	260	76	156	232	40	84	100/110	150	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 40-60 F (N)

1 x 230 V, 50/60 Hz

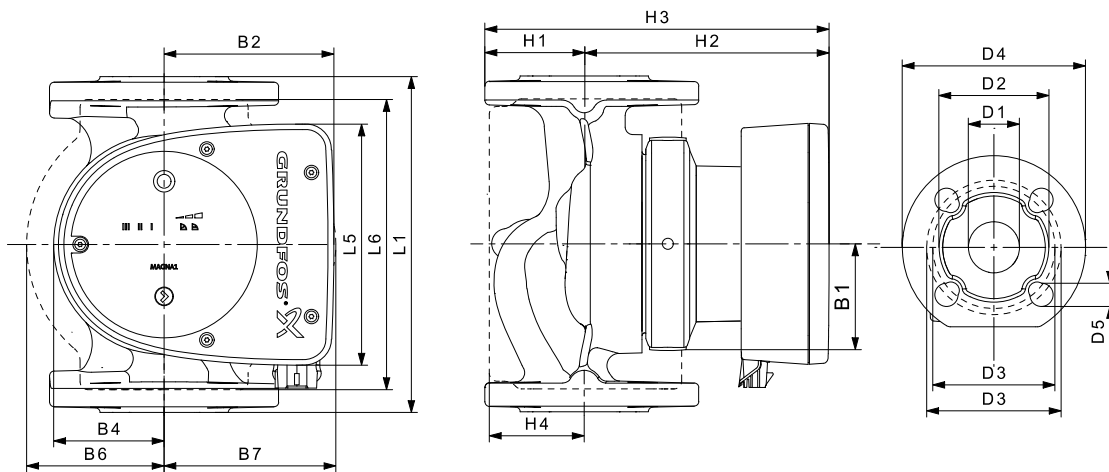


Speed	P1 [W]	I _{1/I} [A]
Min.	12	0.11
Max.	194	1.56

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
9.5	10.5	0.016



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 40-60 F (N)	220	158	220	58	111	69	105	105	65	156	221	83	40	84	100/110	150	14/19

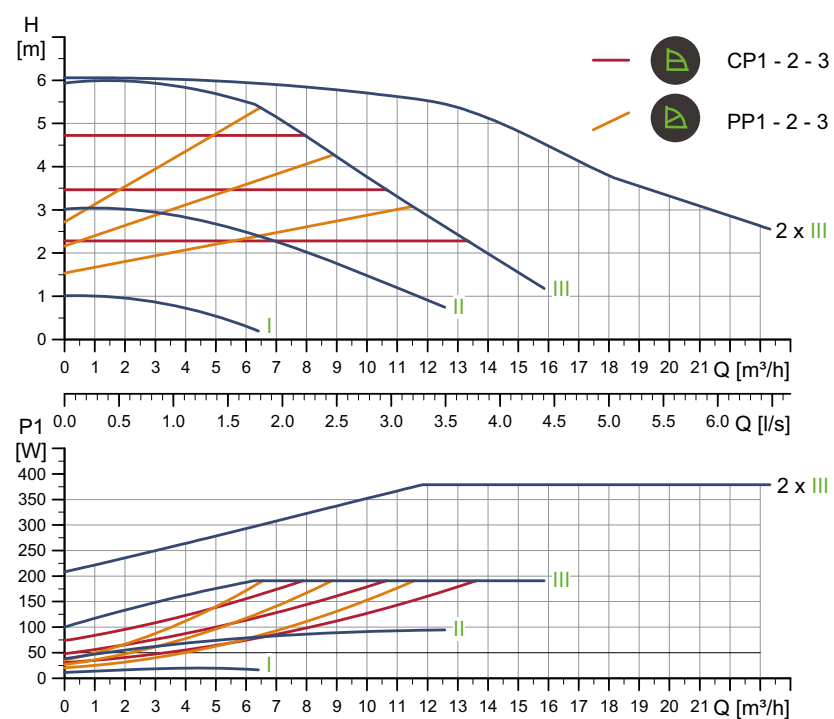
For product numbers, see page 114.

TM05 6370 4712

TM05 5200 3412

MAGNA1 D 40-60 F

1 x 230 V, 50/60 Hz

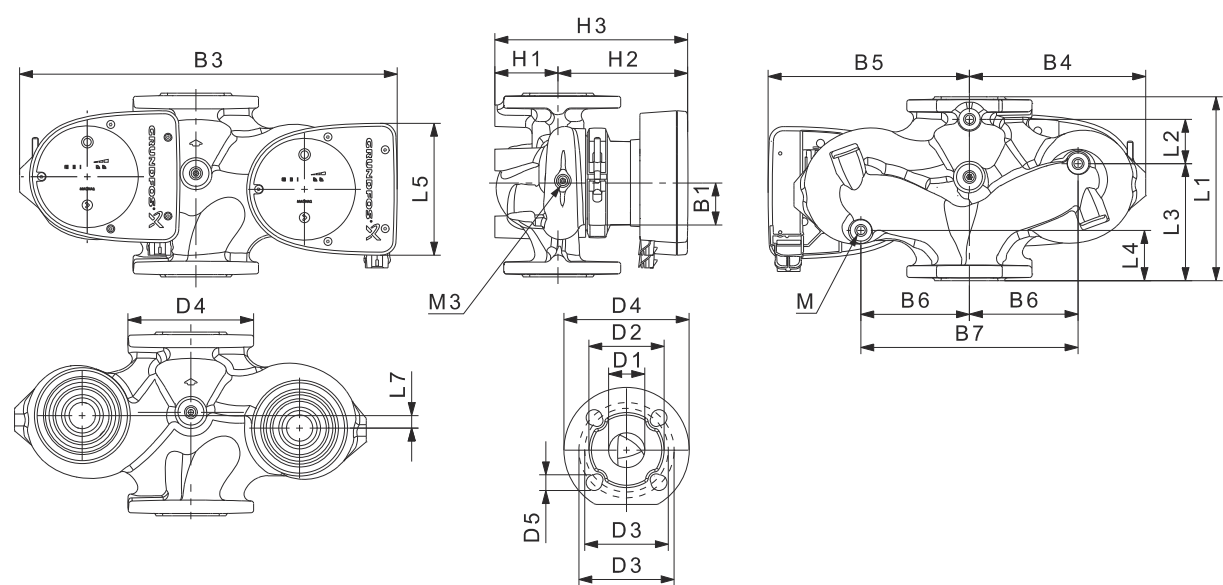


Speed	P1 [W]	I _{1/1} [A]
Min.	12	0.11
Max.	194	1.56

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
19.0	20.0	0.045



Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 40-60 F	220	53	140	60	158	15	58	452	211	241	130	260	76	156	232	40	84	100/110	150	14/19	12	1/4

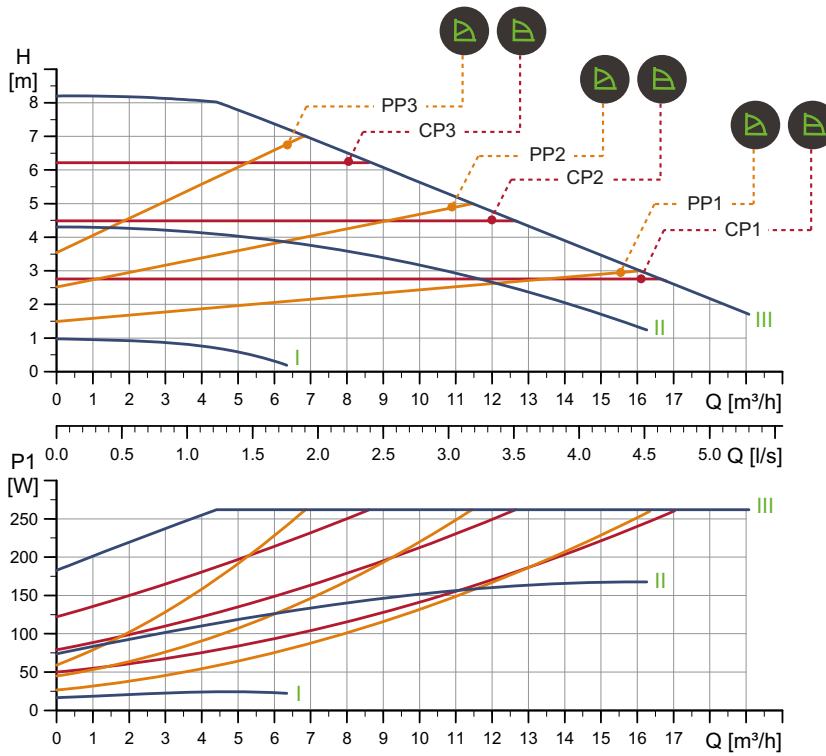
For product numbers, see page 114.

TM05 6371 4712

TM05 4960 3012

MAGNA1 40-80 F (N)

1 x 230 V, 50/60 Hz

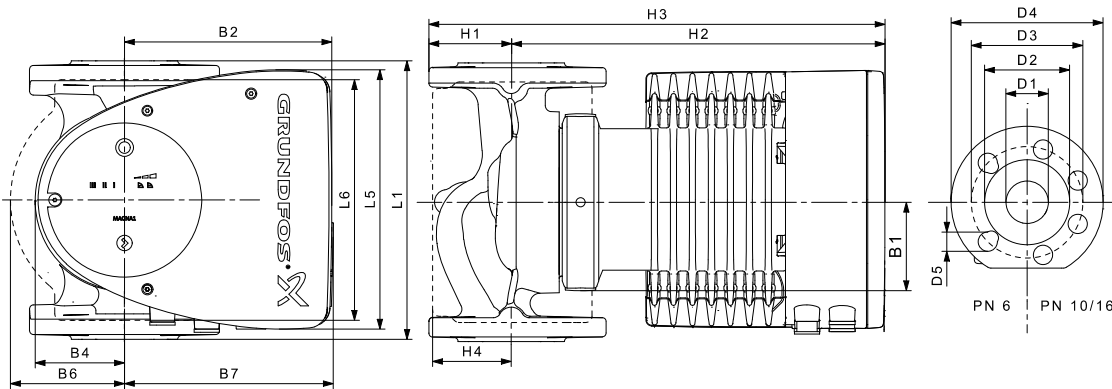


Speed	P1 [W]	I _{1/1} [A]
Min.	17	0.19
Max.	267	1.18

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.23.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
16.5	18.2	0.040



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 40-80 F (N)	220	204	220	84	164	73	106	128	65	304	369	83	40	84	100/110	150	14/19

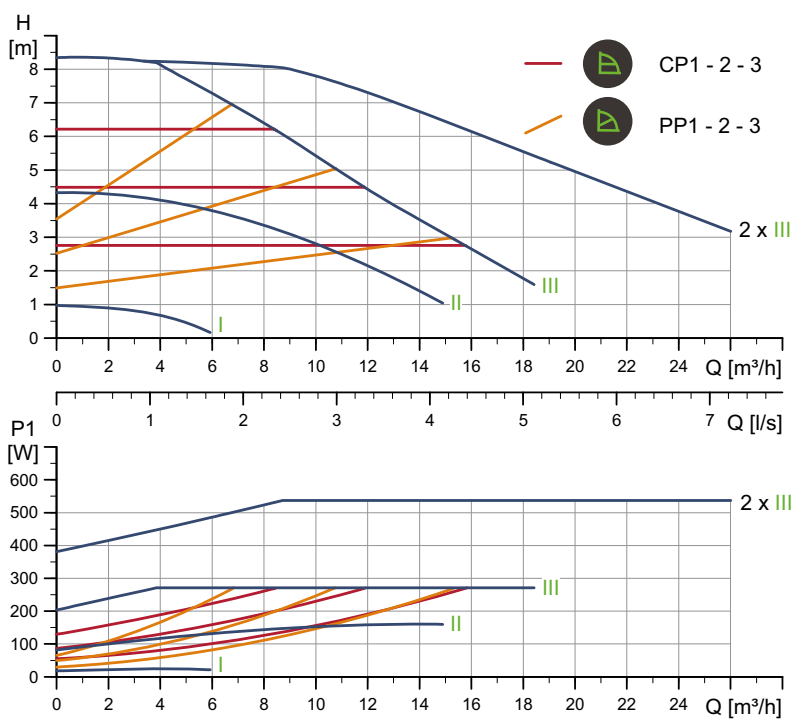
For product numbers, see page 114.

TM05 6288 4712

TM05 5276 3512

MAGNA1 D 40-80 F

1 x 230 V, 50/60 Hz



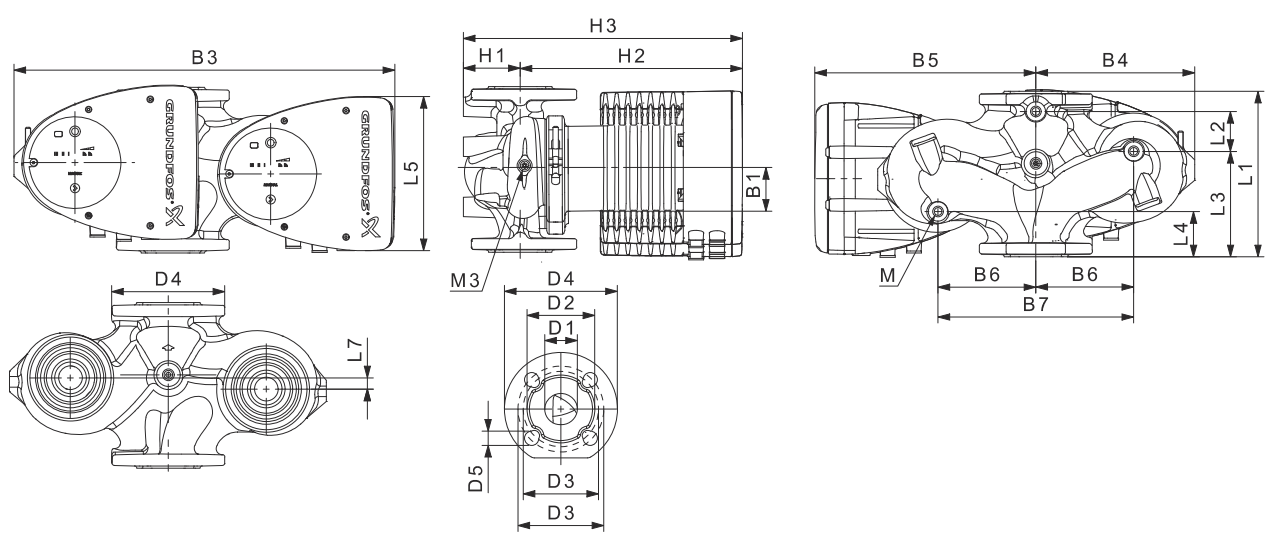
TM05 3733 1912

Speed	P1 [W]	I _{1/1} [A]
Min.	18.4	0.20
Max.	276	1.25

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
32.3	36.2	0.087



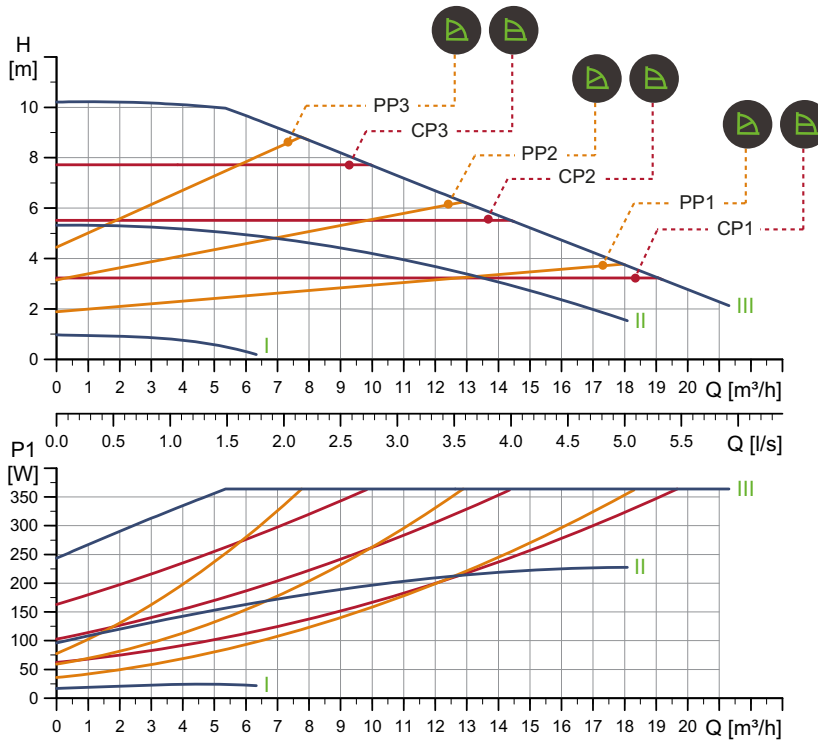
TM05 5937 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5		M
MAGNA1 D 40-80 F	220	53	140	60	204	15	84	502	210	294	130	260	76	303	379	40	84	100/110	150	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 40-100 F (N)

1 x 230 V, 50/60 Hz

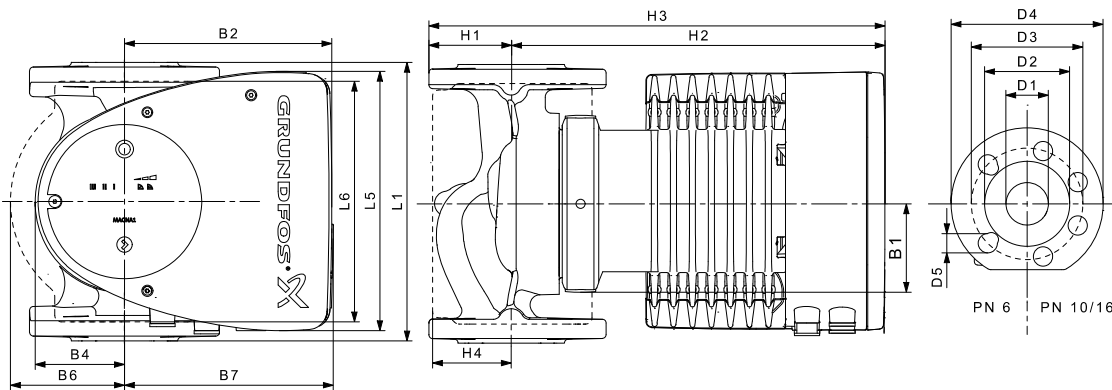


Speed	P1 [W]	I _{1/1} [A]
Min.	17	0.19
Max.	370	1.65

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.23.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
16.5	18.2	0.040



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 40-100 F (N)	220	204	220	84	164	73	106	128	65	304	369	83	40	84	100/110	150	14/19

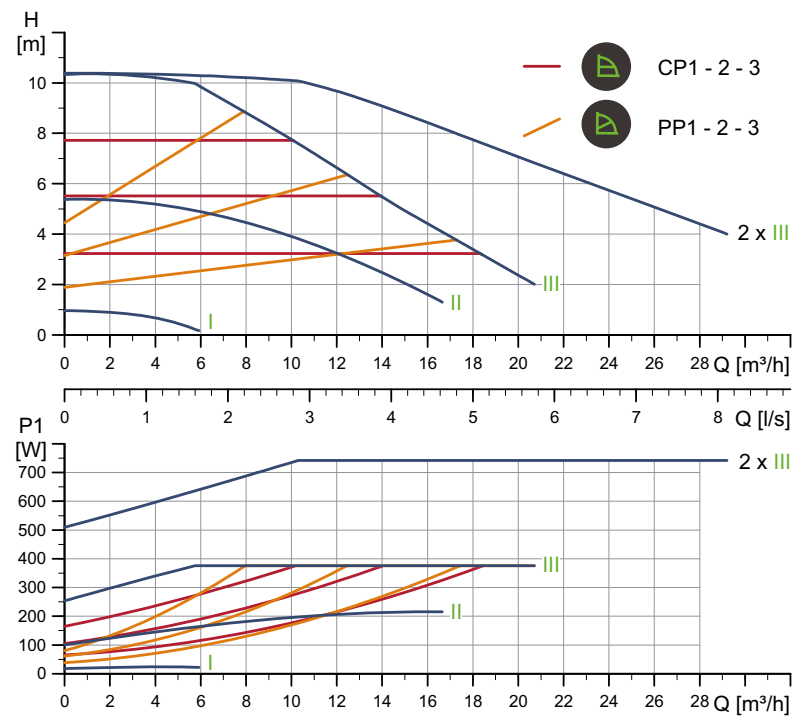
For product numbers, see page 114.

TM05 6289 4712

TM05 5276 3512

MAGNA1 D 40-100 F

1 x 230 V, 50/60 Hz

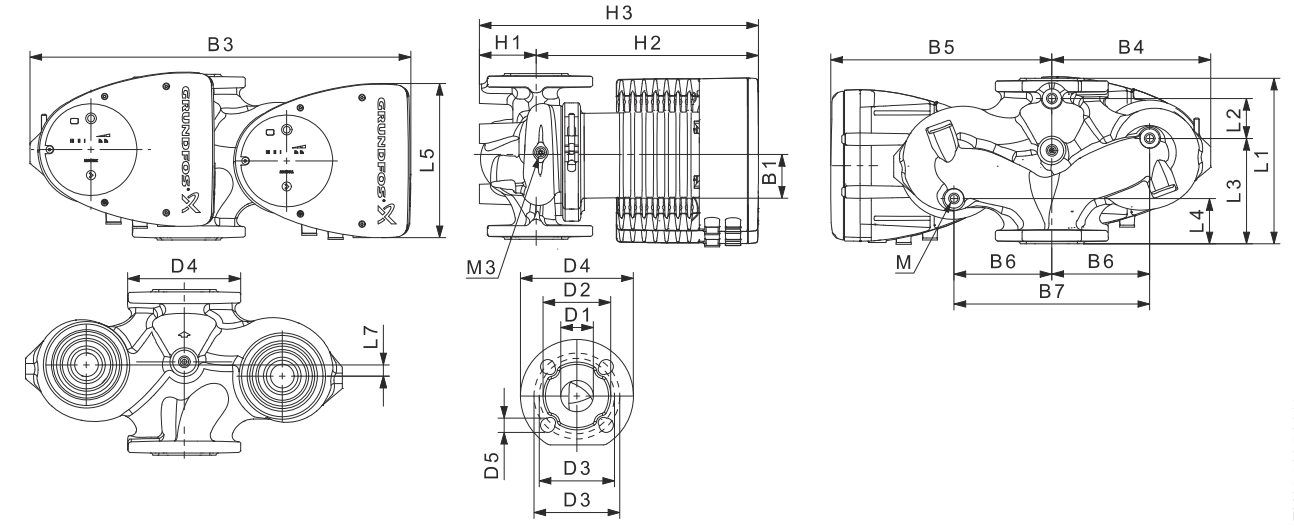


Speed	P1 [W]	I _{1/1} [A]
Min.	18.1	0.20
Max.	383	1.70

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
32.3	36.2	0.087



Pump type	Dimensions [mm]																			Rp		
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 40-100 F	220	53	140	60	204	15	84	502	210	294	130	260	76	303	379	40	84	100/110	150	14/19	12	1/4

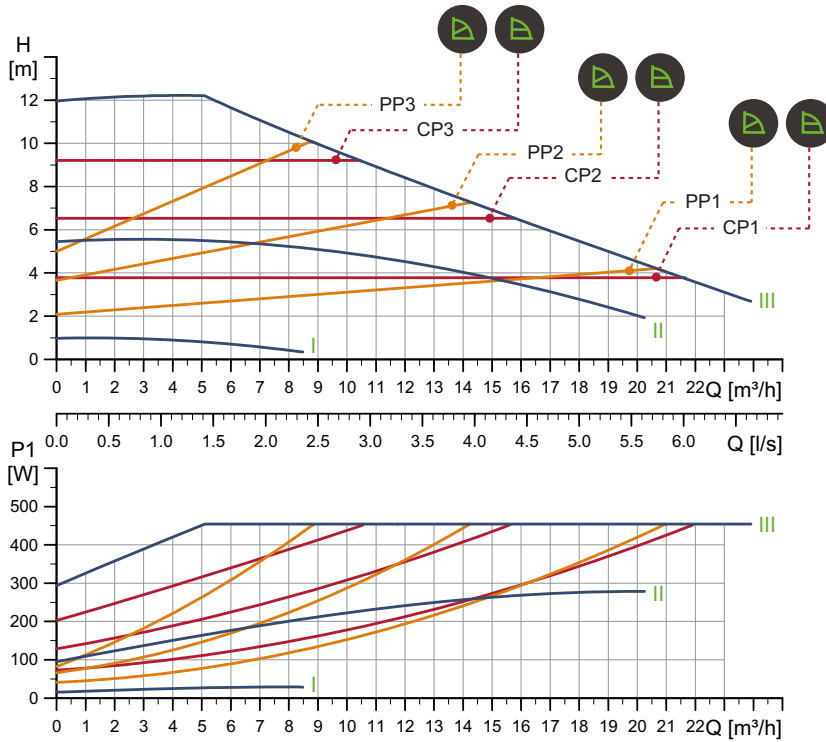
For product numbers, see page 114.

TM05 6336 4712

TM05 5937 3613

MAGNA1 40-120 F (N)

1 x 230 V, 50/60 Hz

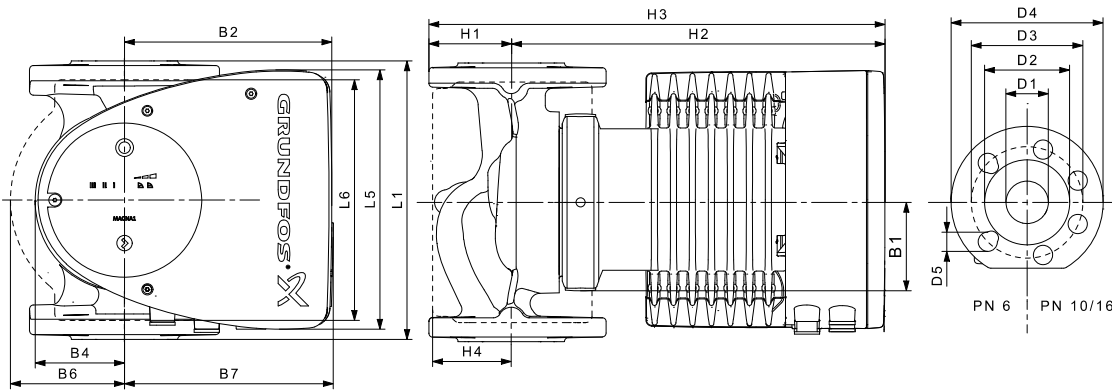


Speed	P1 [W]	I _{1/1} [A]
Min.	15	0.18
Max.	463	2.05

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
16.2	17.7	0.040



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 40-120 F (N)	250	204	220	84	164	73	106	128	65	304	369	83	40	84	100/110	150	14/19

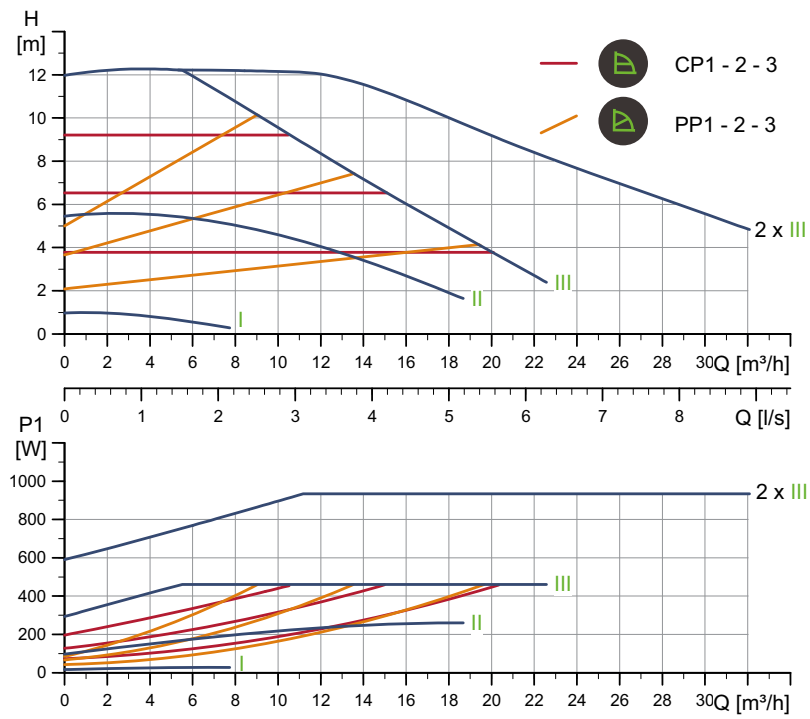
For product numbers, see page 114.

TM05 6290 4712

TM05 5276 3512

MAGNA1 D 40-120 F

1 x 230 V, 50/60 Hz

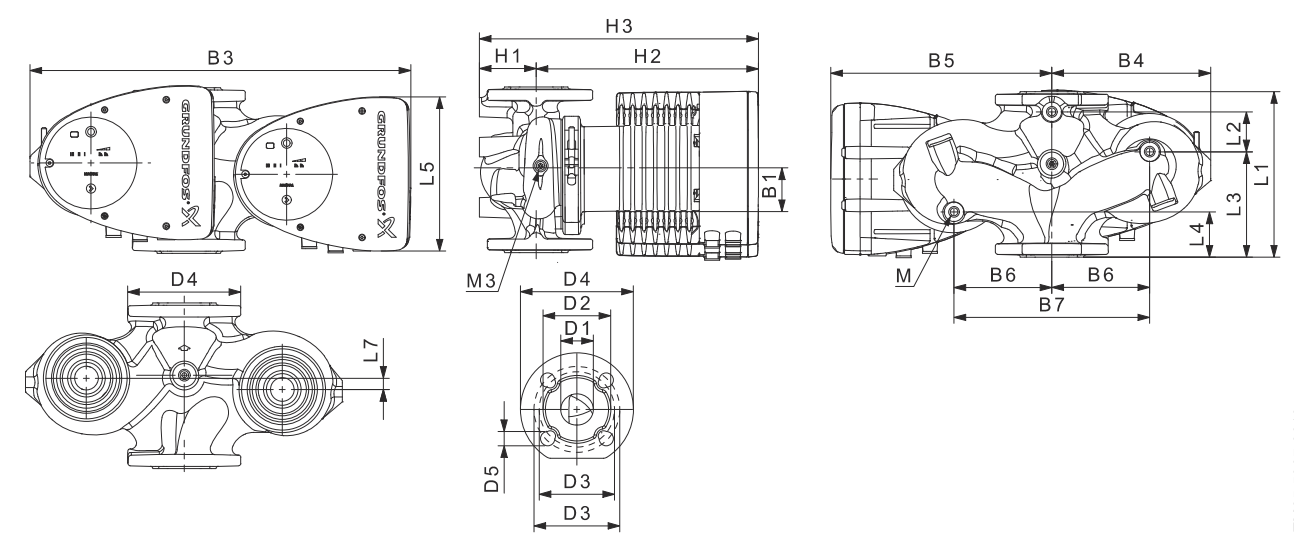


Speed	P1 [W]	I _{1/1} [A]
Min.	17	0.19
Max.	476	2.10

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
31.4	35.3	0.087



Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5		M
MAGNA1 D 40-120 F	250	58	155	75	204	0	84	512	220	294	130	260	69	303	372	40	84	100/110	150	14/19	12	1/4

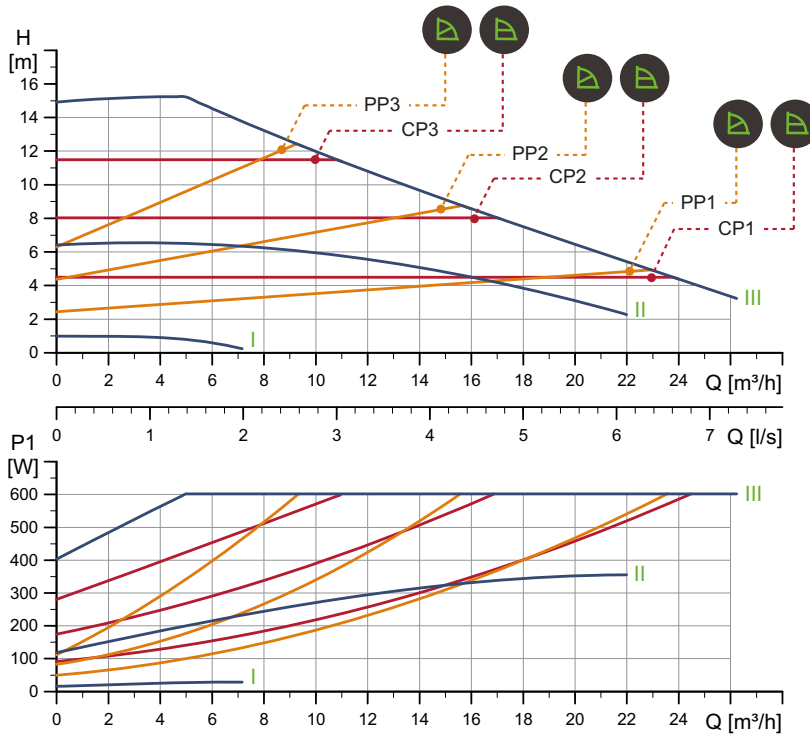
For product numbers, see page 114.

TM05 6337 4712

TM05 5937 3613

MAGNA1 40-150 F (N)

1 x 230 V, 50/60 Hz

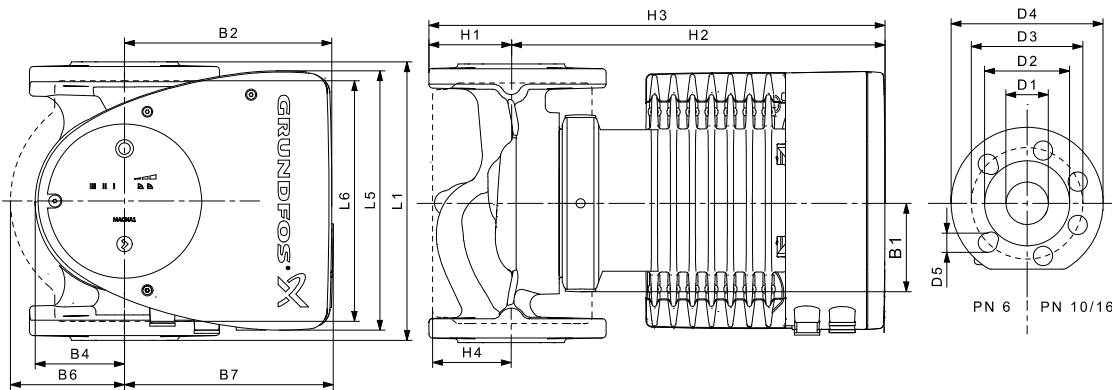


Speed	P1 [W]	I _{1/1} [A]
Min.	16	0.18
Max.	615	2.71

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
16.2	17.7	0.040



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 40-150 F (N)	250	204	220	84	164	73	106	128	65	304	369	83	40	84	100/110	150	14/19

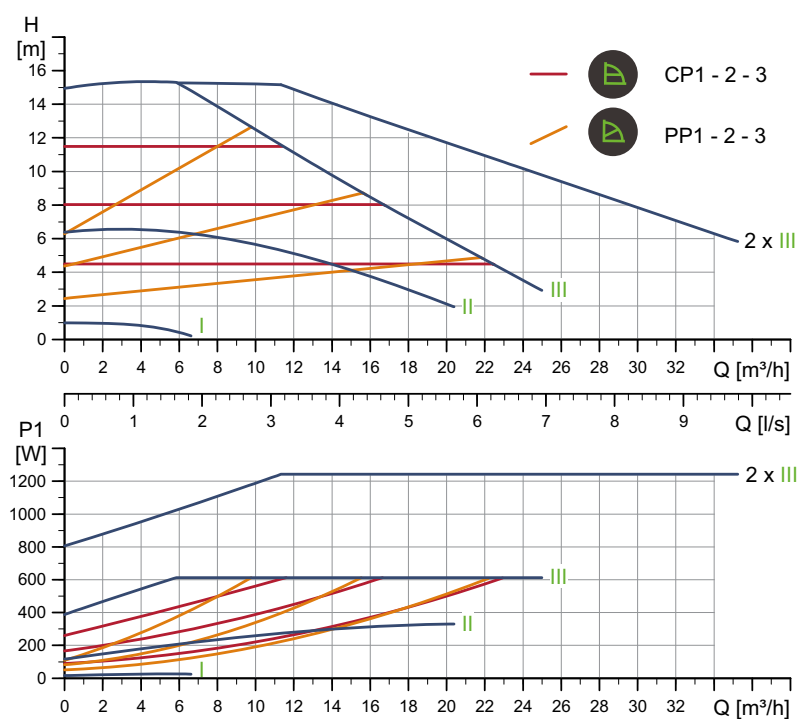
For product numbers, see page 114.

TM05 6291 4712

TM05 6276 3512

MAGNA1 D 40-150 F

1 x 230 V, 50/60 Hz

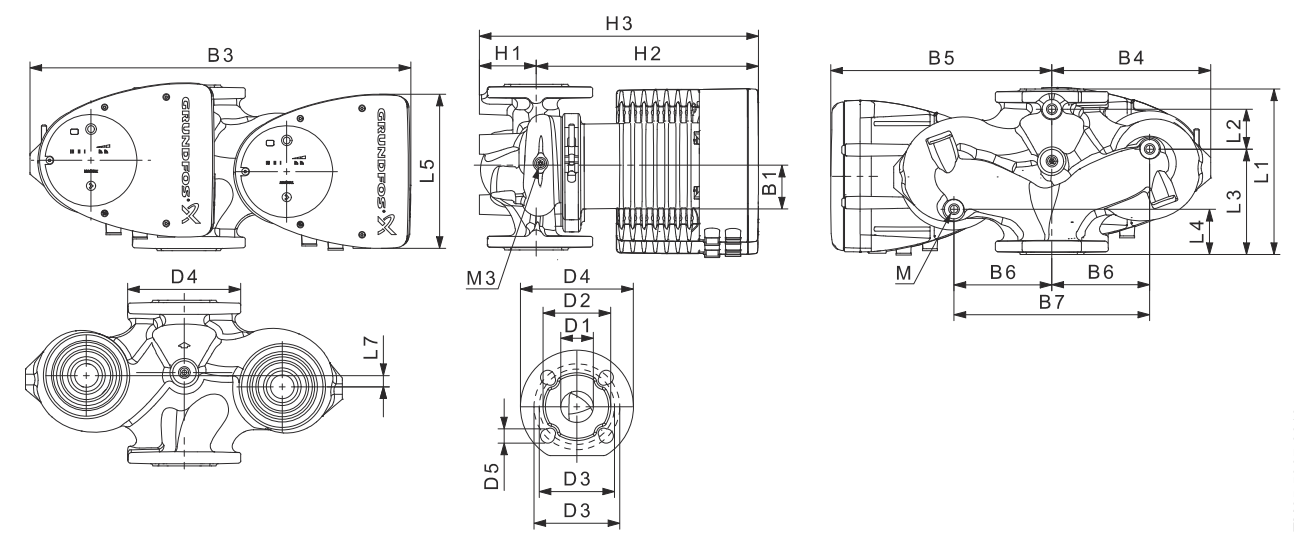


Speed	P1 [W]	I _{1/1} [A]
Min.	16.9	0.18
Max.	630	2.77

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
31.4	35.3	0.087



Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 40-150 F	250	58	155	75	204	0	84	512	220	294	130	260	69	303	372	40	84	100/110	150	14/19	12	1/4

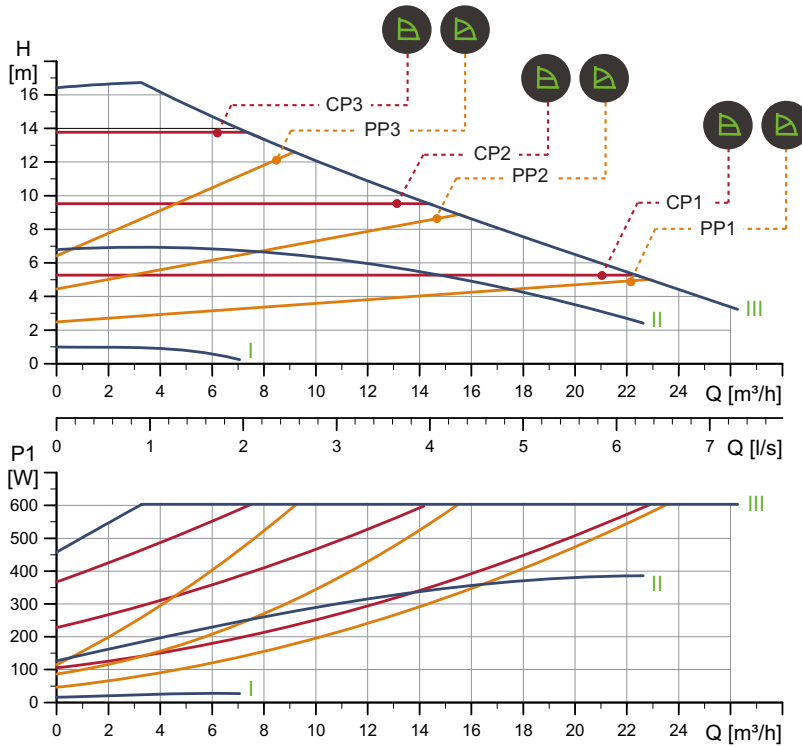
For product numbers, see page 114.

TM05 6338 4712

TM05 5937 3613

MAGNA1 40-180 F (N)

1 x 230 V, 50/60 Hz

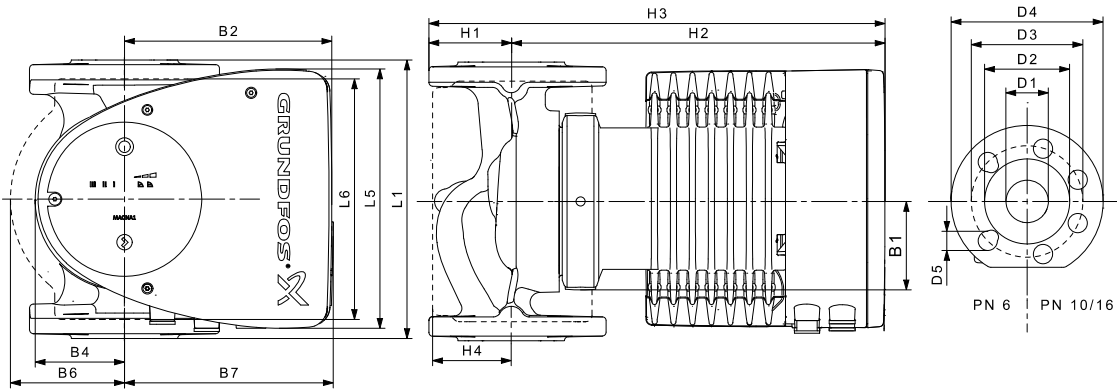


Speed	P1 [W]	I _{1/1} [A]
Min.	16	0.22
Max.	615	2.71

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.20.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
16.2	17.7	0.040



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 40-180 F (N)	250	204	220	84	164	73	106	128	65	304	369	83	40	84	100/110	150	14/19

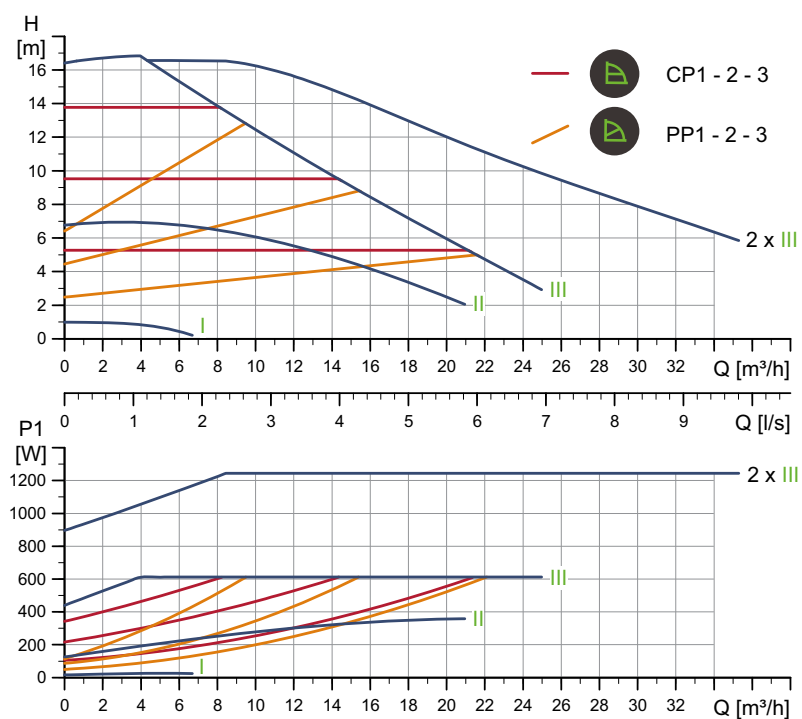
For product numbers, see page 114.

TM05 6292 4712

TM05 5276 3512

MAGNA1 D 40-180 F

1 x 230 V, 50/60 Hz

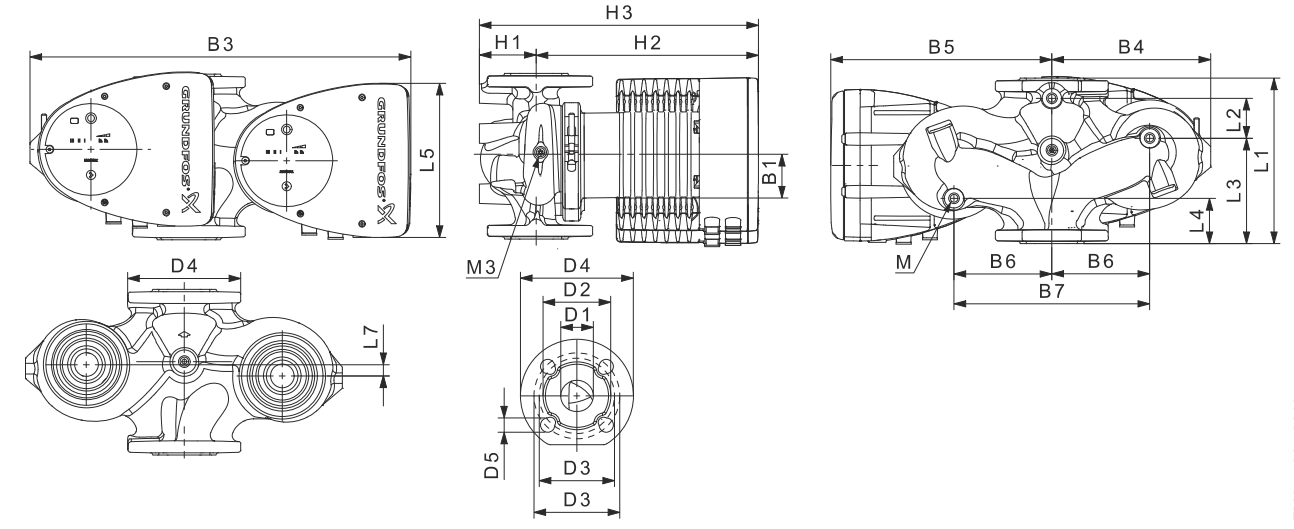


Speed	P1 [W]	I _{1/1} [A]
Min.	15.4	0.19
Max.	629	2.75

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
31.4	35.3	0.087



Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 40-180 F	250	58	155	75	204	0	84	512	220	294	130	260	69	303	372	40	84	100/110	150	14/19	12	1/4

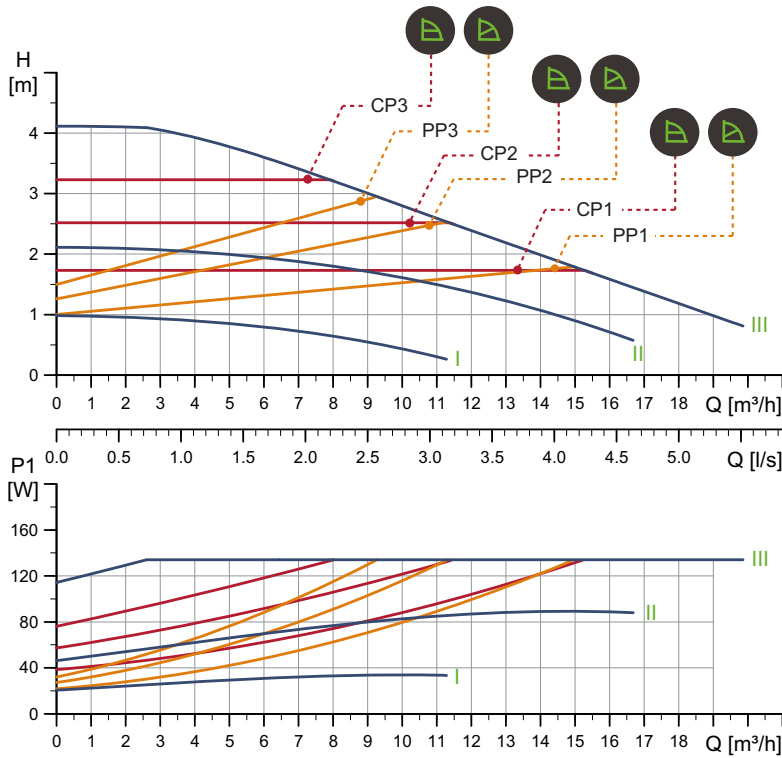
For product numbers, see page 114.

TM05 6339 4712

TM05 5937 3613

MAGNA1 50-40 F (N)

1 x 230 V, 50/60 Hz

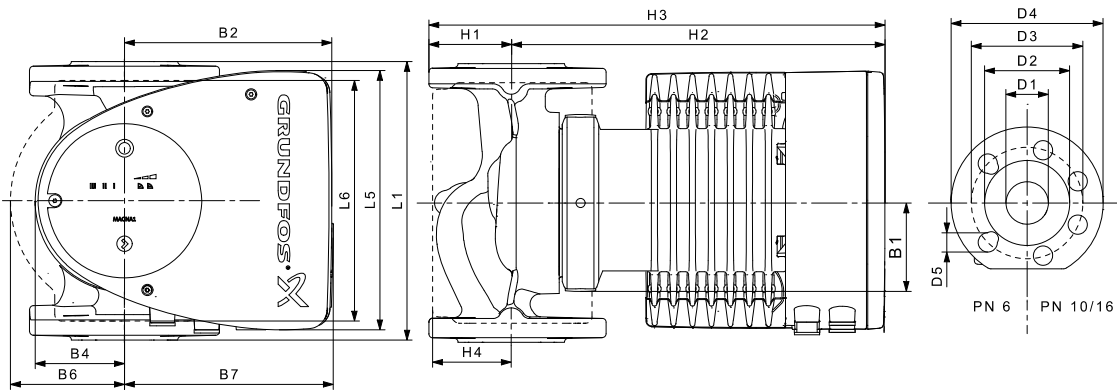


Speed	P1 [W]	I _{1/1} [A]
Min.	20.9	0.22
Max.	137	0.65

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.23.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
17.7	19.8	0.046



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 50-40 F (N)	240	204	240	84	164	73	127	127	71	304	375	97	50	102	110/125	165	14/19

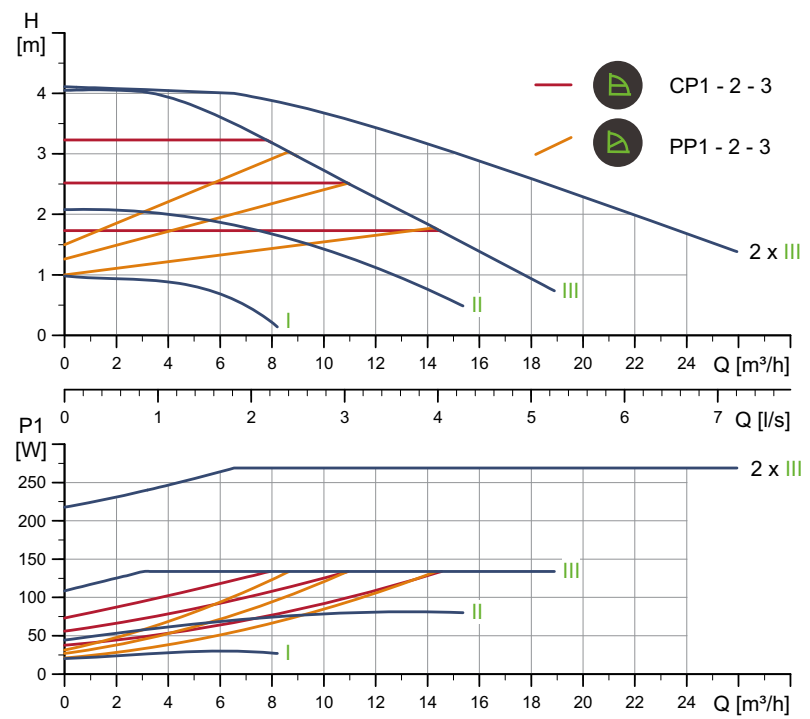
For product numbers, see page 114.

TM05 6293 4712

TM05 5276 3512

MAGNA1 D 50-40 F

1 x 230 V, 50/60 Hz



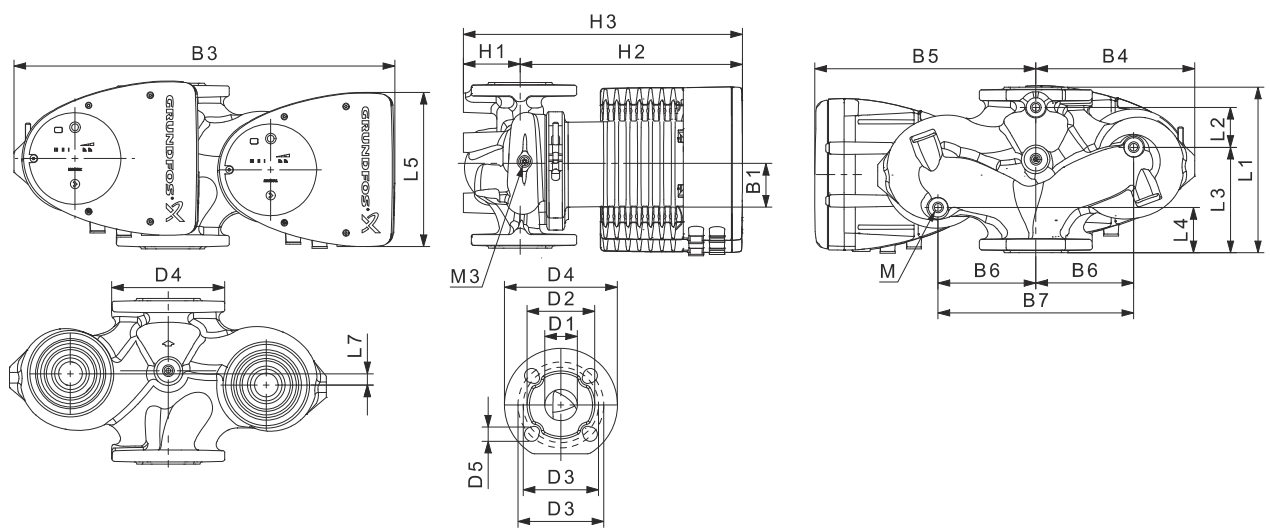
TM05 6340 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	21.1	0.22
Max.	137	0.65

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
34.3	42.0	0.132



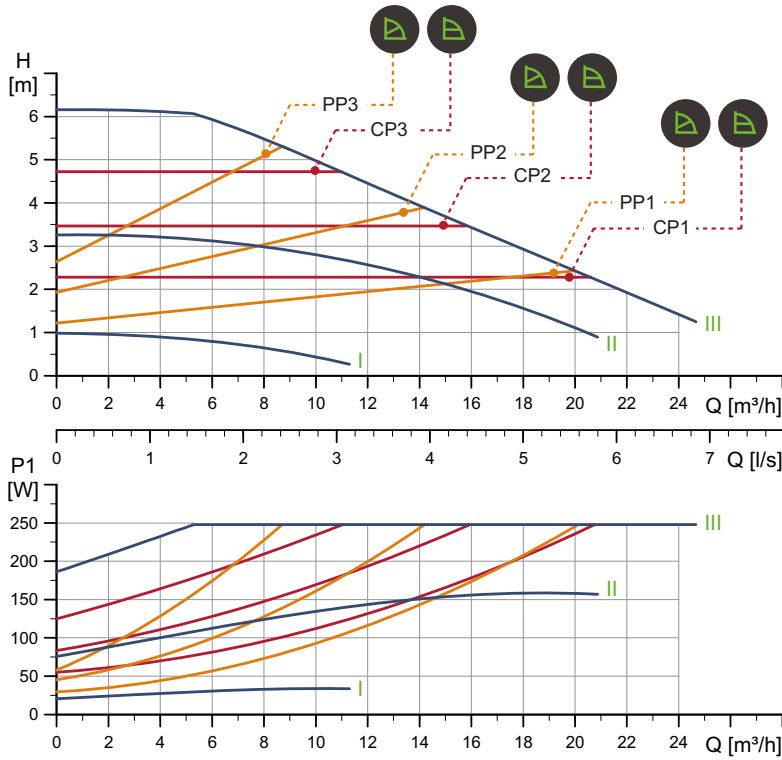
TM05 5937 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 50-40 F	240	48	160	45	204	45	84	515	221	294	130	260	75	304	379	50	102	110/125	165	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 50-60 F (N)

1 x 230 V, 50/60 Hz

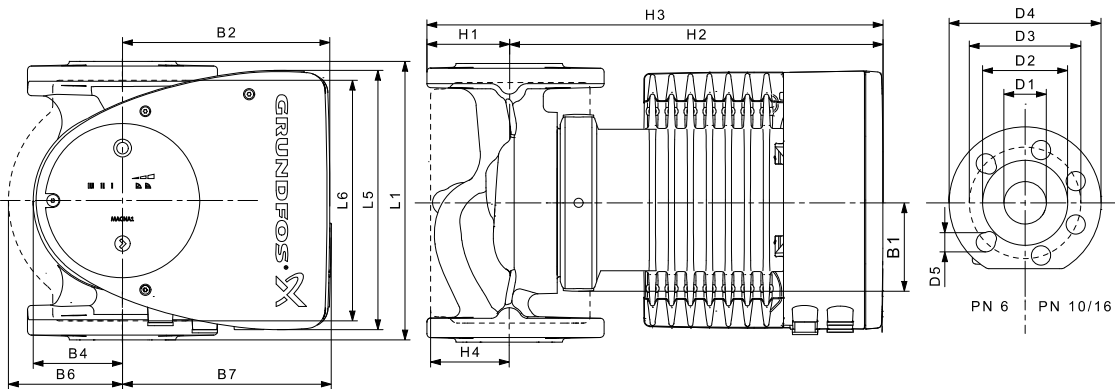


Speed	P1 [W]	I _{1/1} [A]
Min.	20.9	0.22
Max.	252	1.15

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.22.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
17.7	19.8	0.046



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 50-60 F (N)	240	204	240	84	164	73	127	127	71	304	375	97	50	102	110/125	165	14/19

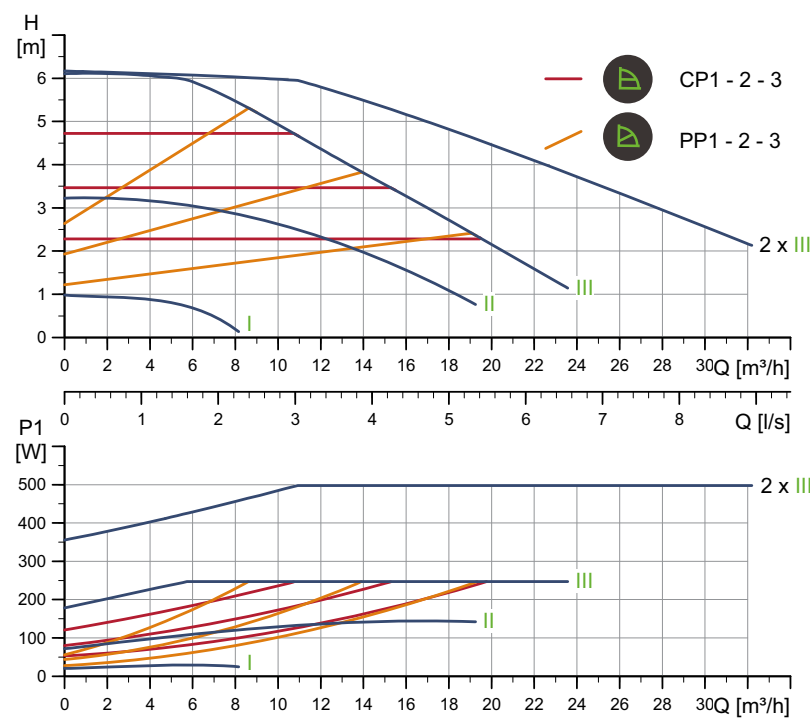
For product numbers, see page 114.

TM05 6294 4712

TM05 5276 3512

MAGNA1 D 50-60 F

1 x 230 V, 50/60 Hz



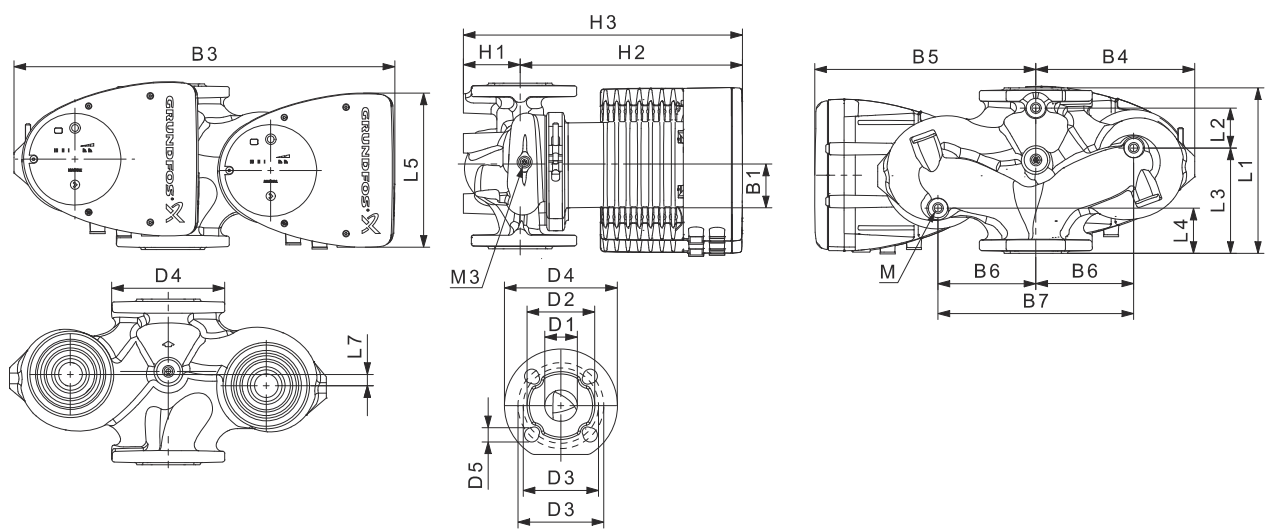
TM05 5937 3613

Speed	P1 [W]	I _{1/1} [A]
Min.	20.9	0.22
Max.	253	1.15

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
34.3	42.0	0.132



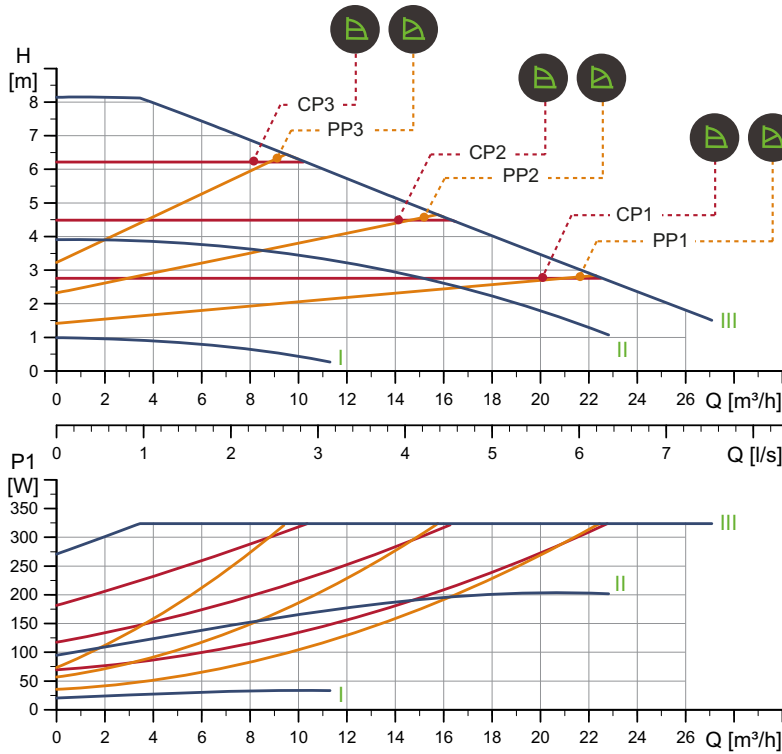
TM05 4960 3012

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 50-60 F	240	48	160	45	204	45	84	515	221	294	130	260	75	304	379	50	102	110/125	165	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 50-80 F (N)

1 x 230 V, 50/60 Hz

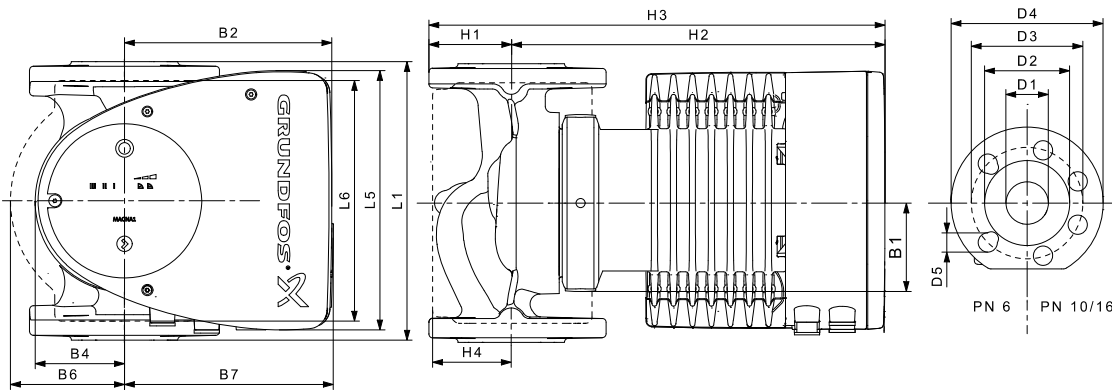


Speed	P1 [W]	I _{1/1} [A]
Min.	20.9	0.22
Max.	331	1.48

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
17.7	19.8	0.046

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 50-80 F (N)	240	204	240	84	164	73	127	127	71	304	374	97	50	102	110/125	165	14/19

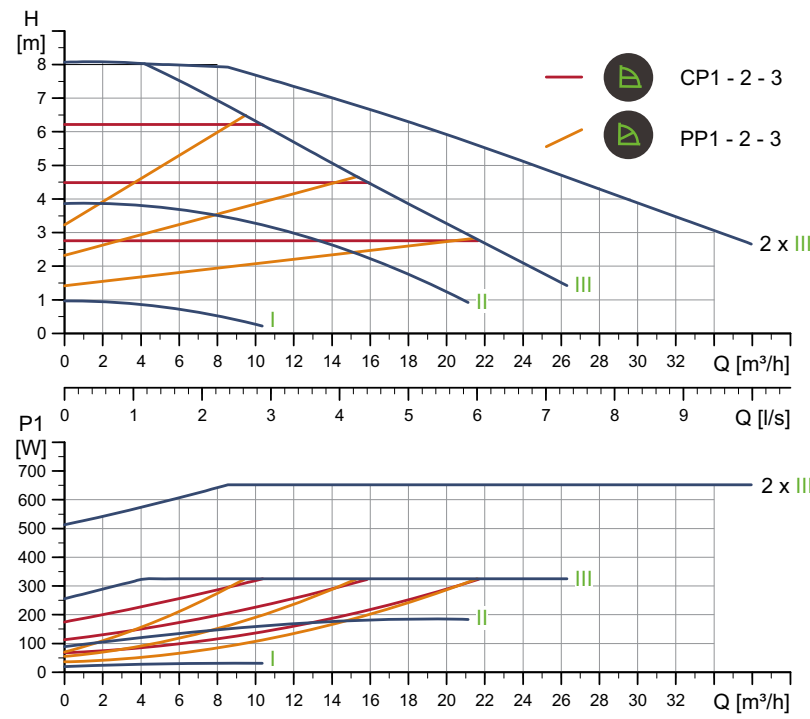
For product numbers, see page 114.

TM05 6295 4712

TM05 5276 3512

MAGNA1 D 50-80 F

1 x 230 V, 50/60 Hz



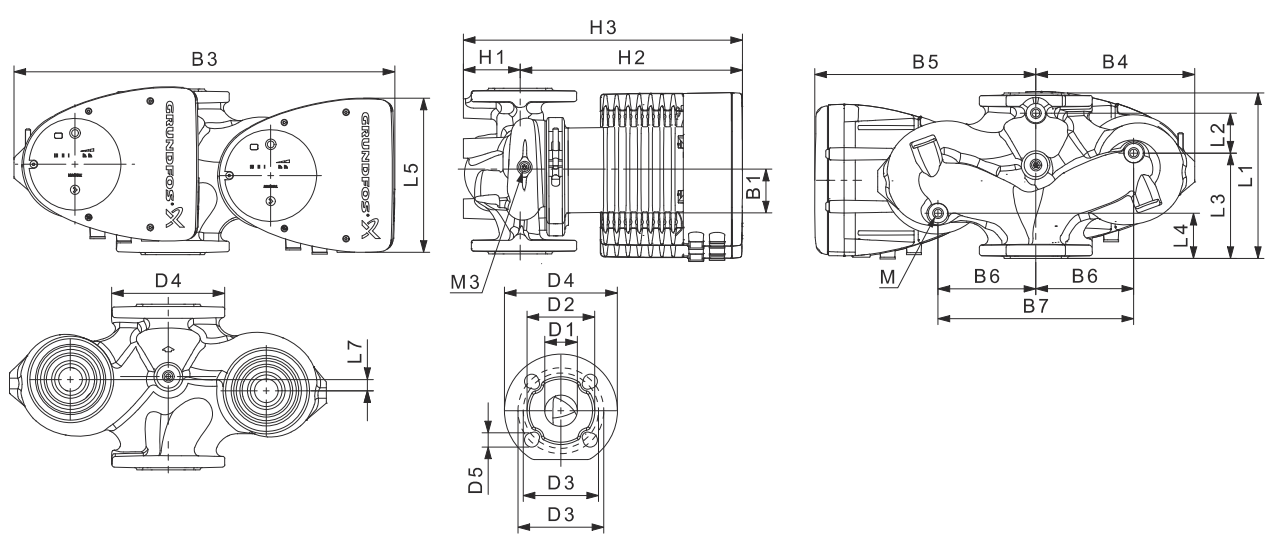
TM05 6342 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	20.6	0.22
Max.	331	1.48

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
34.3	42.0	0.132



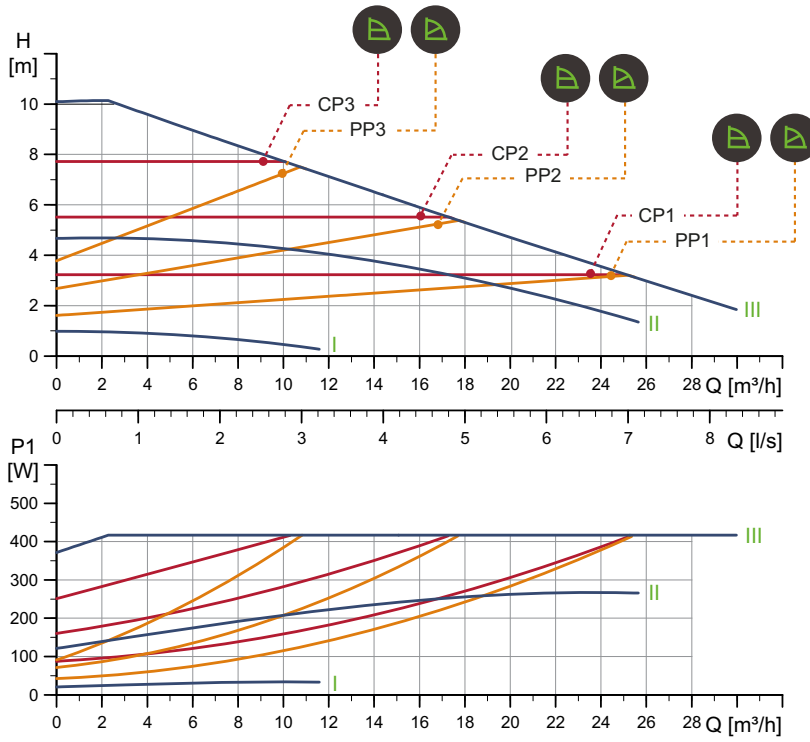
TM05 5937 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5		M
MAGNA1 D 50-80 F	240	48	160	45	204	45	84	515	221	294	130	260	75	304	379	50	102	110/125	165	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 50-100 F (N)

1 x 230 V, 50/60 Hz

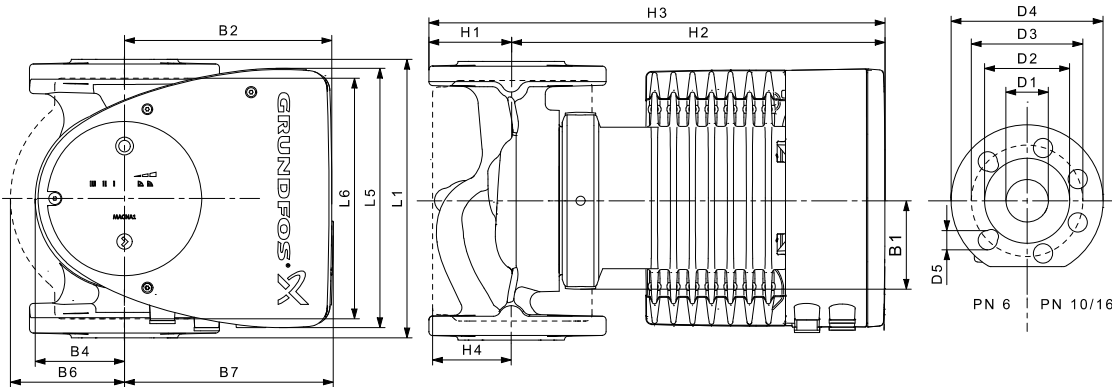


Speed	P1 [W]	I _{1/1} [A]
Min.	20.9	0.22
Max.	425	1.90

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
18.2	20.4	0.046



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 50-100 F (N)	280	204	240	84	164	73	127	127	72	304	376	97	50	102	110/125	165	14/19

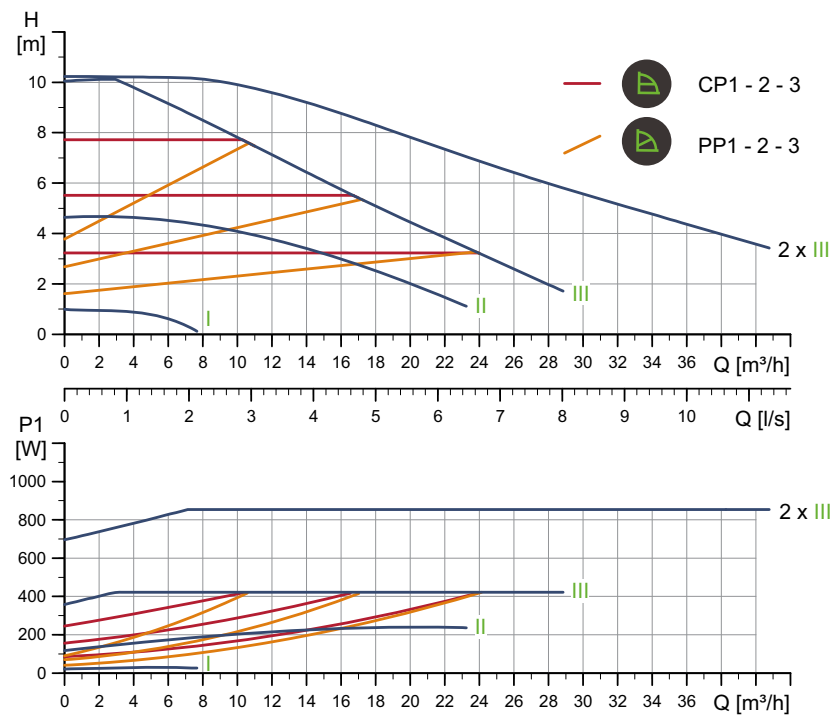
For product numbers, see page 114.

TM05 6296 4712

TM05 6276 3512

MAGNA1 D 50-100 F

1 x 230 V, 50/60 Hz

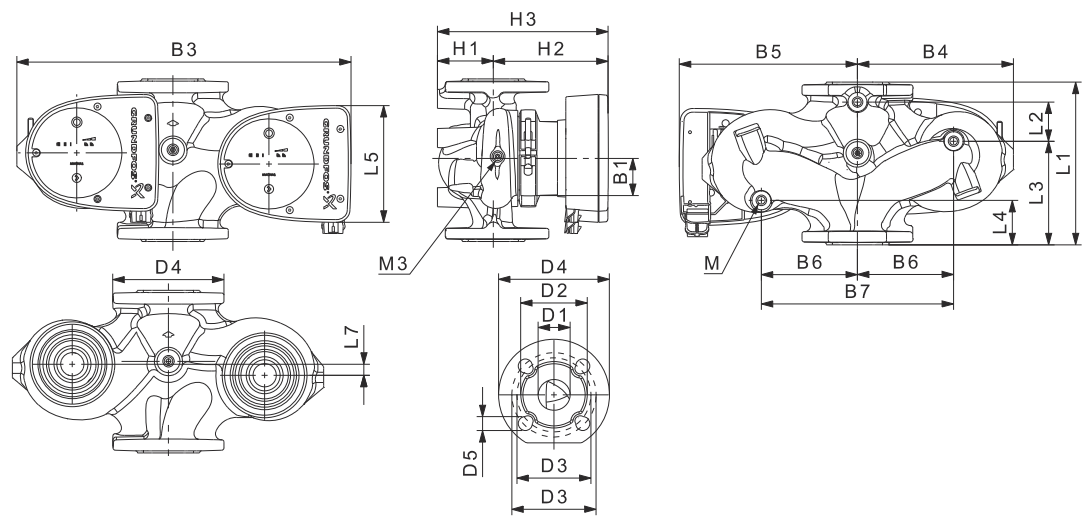


Speed	P1 [W]	I _{1/1} [A]
Min.	21	0.22
Max.	433	1.93

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
34.3	42.0	0.132



Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 50-100 F	280	175	75	75	204	0	84	517	223	294	130	260	75	304	379	50	102	110/125	165	14/19	12	1/4

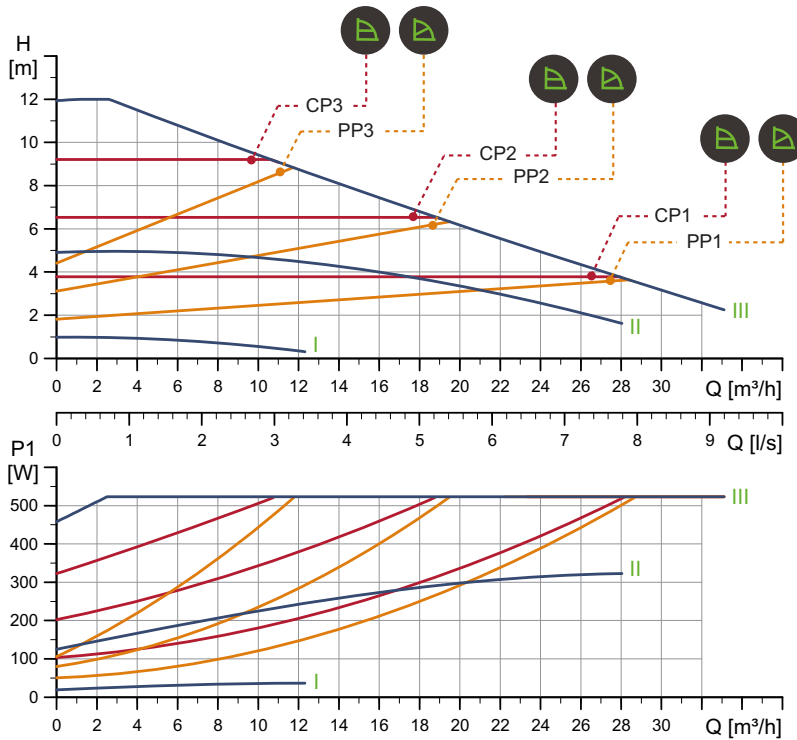
For product numbers, see page 114.

TM05 6343 4712

TM05 4960 3012

MAGNA1 50-120 F (N)

1 x 230 V, 50/60 Hz

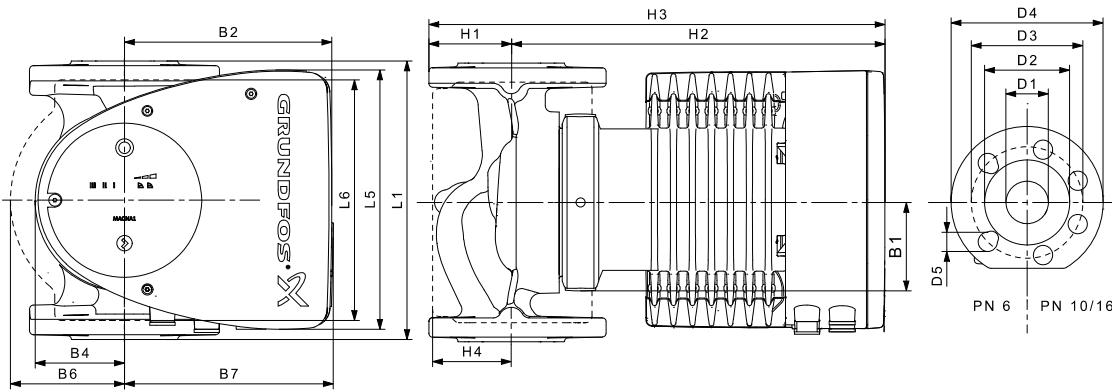


Speed	P1 [W]	I _{1/1} [A]
Min.	20.2	0.22
Max.	533	2.37

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
18.2	20.4	0.046



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 50-120 F (N)	280	204	240	84	164	73	127	127	72	304	376	97	50	102	110/125	165	14/19

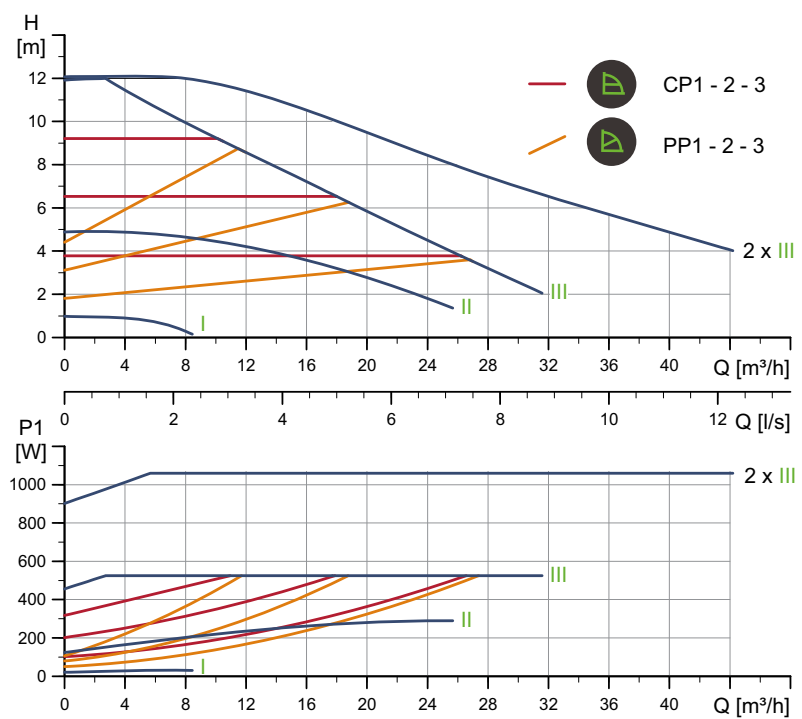
For product numbers, see page 114.

TM05 6297 4712

TM05 5276 3512

MAGNA1 D 50-120 F

1 x 230 V, 50/60 Hz



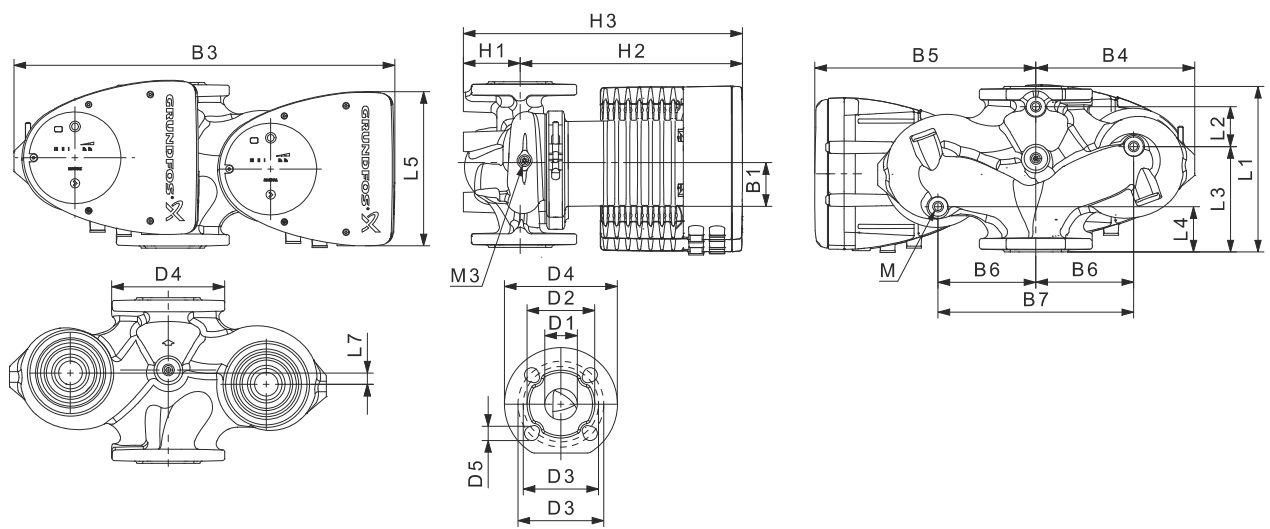
TM05 6344 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	20.7	0.22
Max.	534	2.37

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
34.3	42.0	0.132



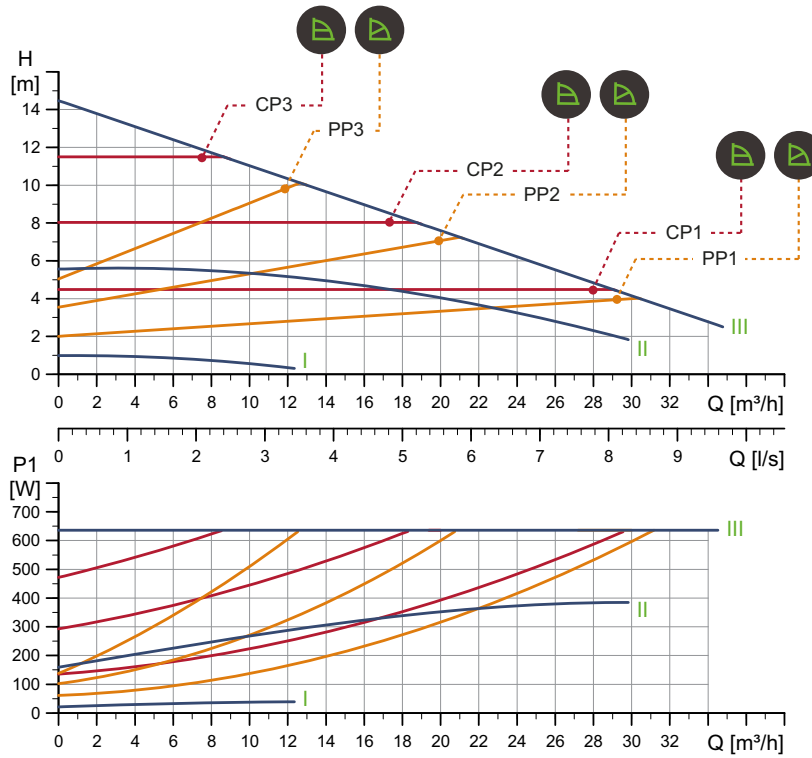
TM05 5937 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5		M
MAGNA1 D 50-120 F	280	175	75	75	204	0	84	517	223	294	130	260	75	304	379	50	102	110/125	165	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 50-150 F (N)

1 x 230 V, 50/60 Hz

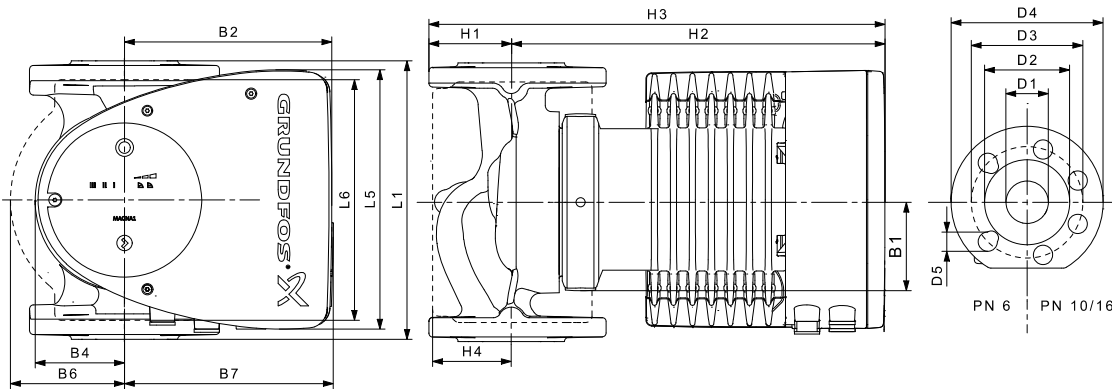


Speed	P1 [W]	I _{1/1} [A]
Min.	22.2	0.24
Max.	649	2.87

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.20.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
19.1	21.3	0.046



Pump type	Dimensions [mm]																		
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5		
MAGNA1 50-150 F (N)	280	204	240	84	164	73	127	127	72	304	376	97	50	102	110/125	165	14/19		

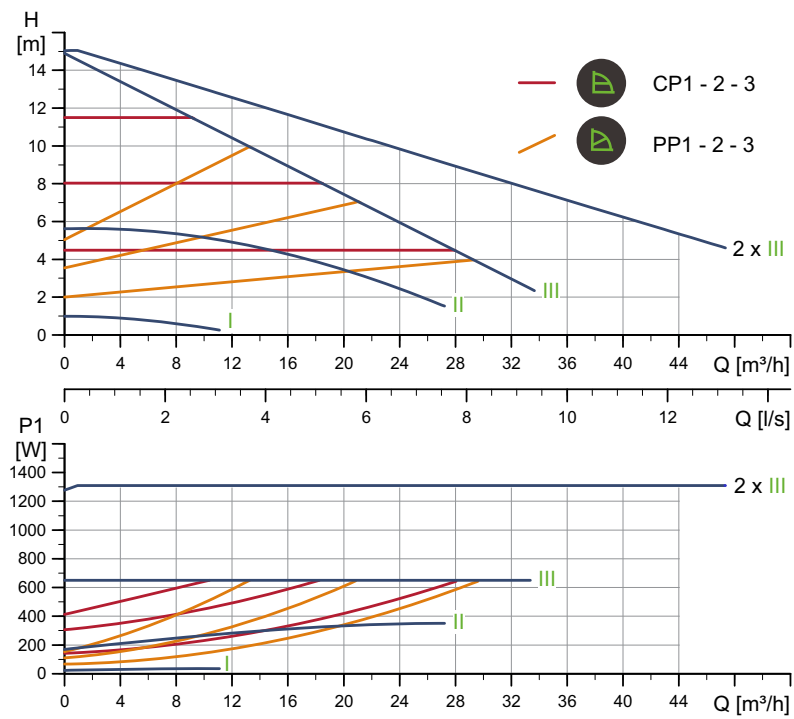
For product numbers, see page 114.

TM05 6298 4712

TM05 5200 3412

MAGNA1 D 50-150 F

1 x 230 V, 50/60 Hz



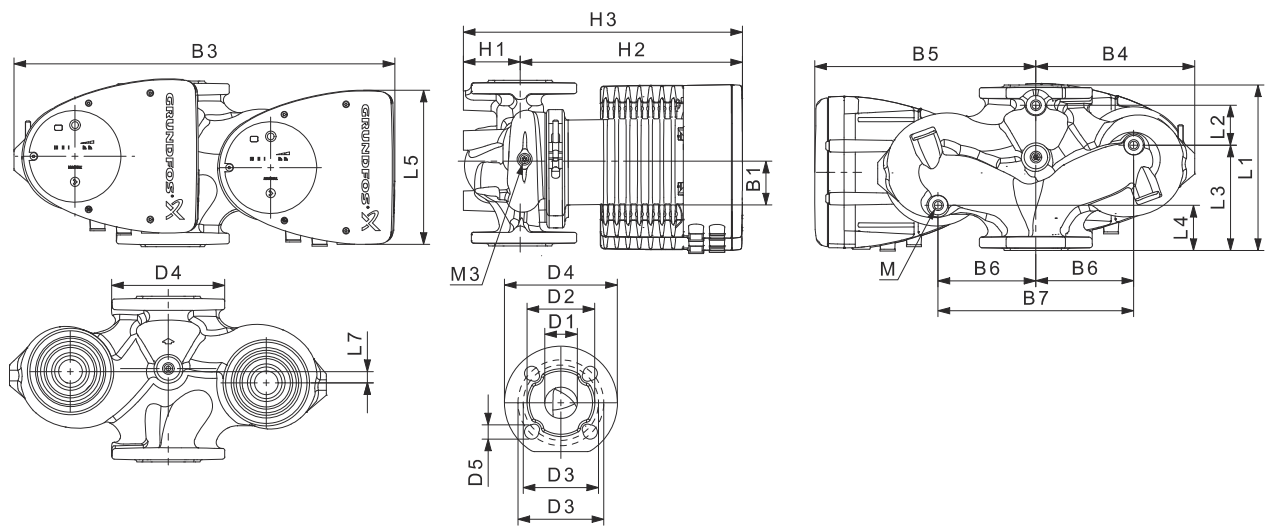
TM05 6345 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	23.8	0.26
Max.	653	2.88

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
36.1	43.7	0.132



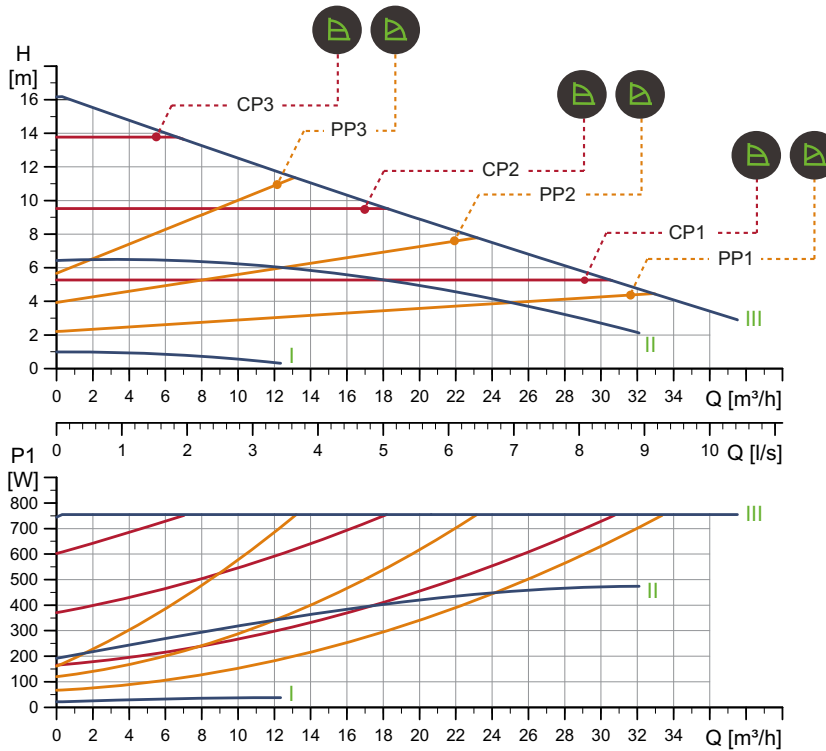
TM05 5837 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 50-150 F	280	175	75	75	204	0	84	517	223	294	130	260	75	304	379	50	102	110/125	165	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 50-180 F (N)

1 x 230 V, 50/60 Hz

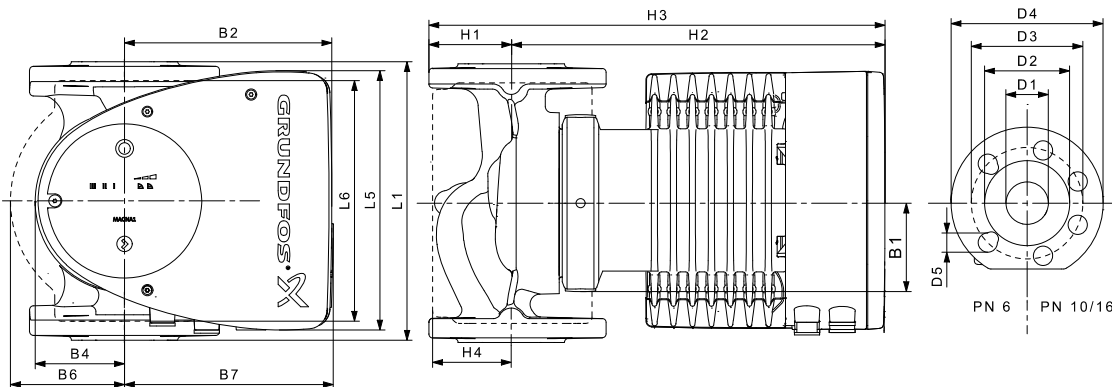


Speed	P1 [W]	I _{1/1} [A]
Min.	22.1	0.24
Max.	769	3.40

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.20.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
19.1	21.3	0.046



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 50-180 F (N)	280	204	240	84	164	73	127	127	72	304	376	97	50	102	110/125	165	14/19

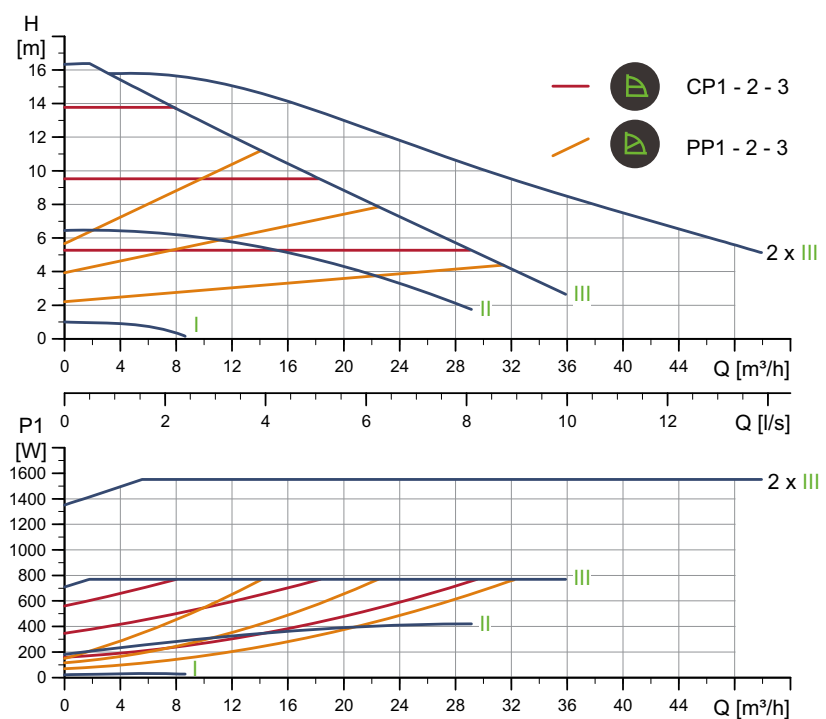
For product numbers, see page 114.

TM05 6299 4712

TM05 5276 3512

MAGNA1 D 50-180 F

1 x 230 V, 50/60 Hz



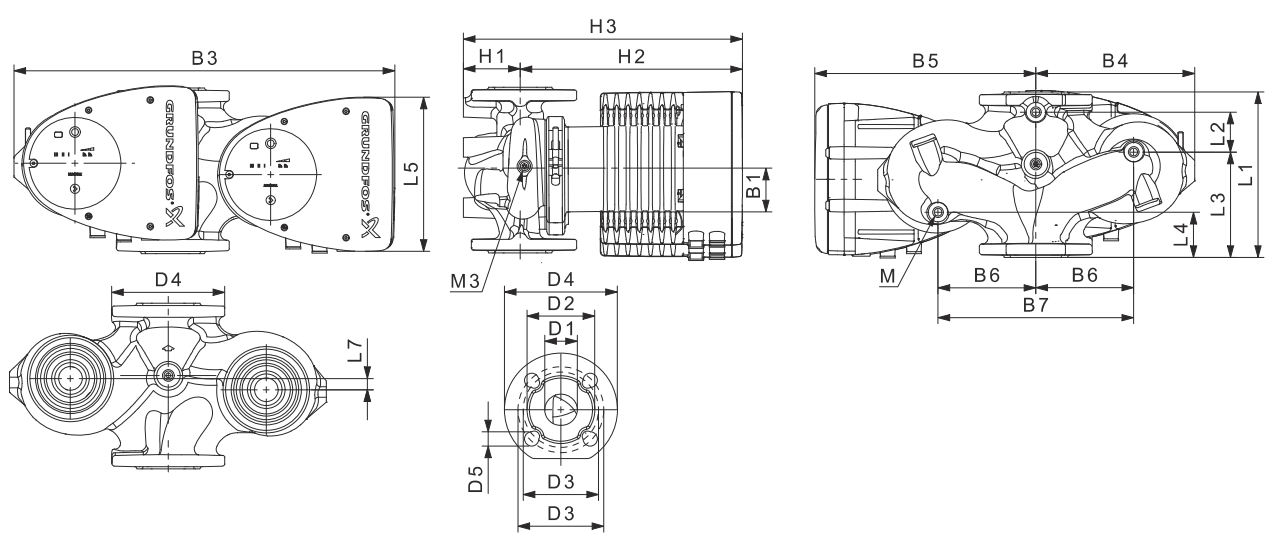
TM05 6346 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	22.4	0.23
Max.	785	3.46

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
36.1	43.7	0.132



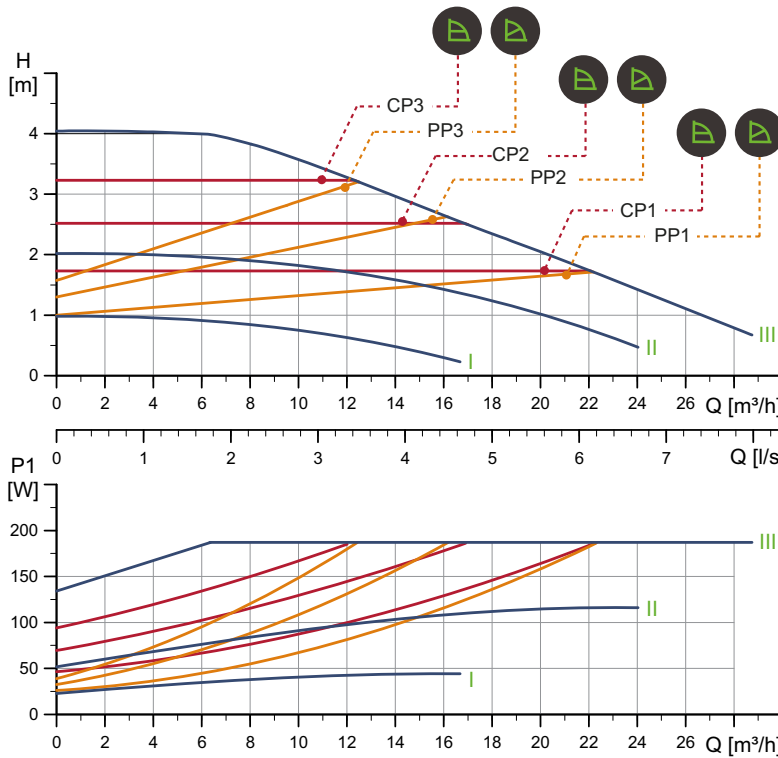
TM05 5937 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 50-180 F	280	175	75	75	204	0	84	517	223	294	130	260	75	304	379	50	102	110/125	165	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 65-40 F (N)

1 x 230 V, 50/60 Hz

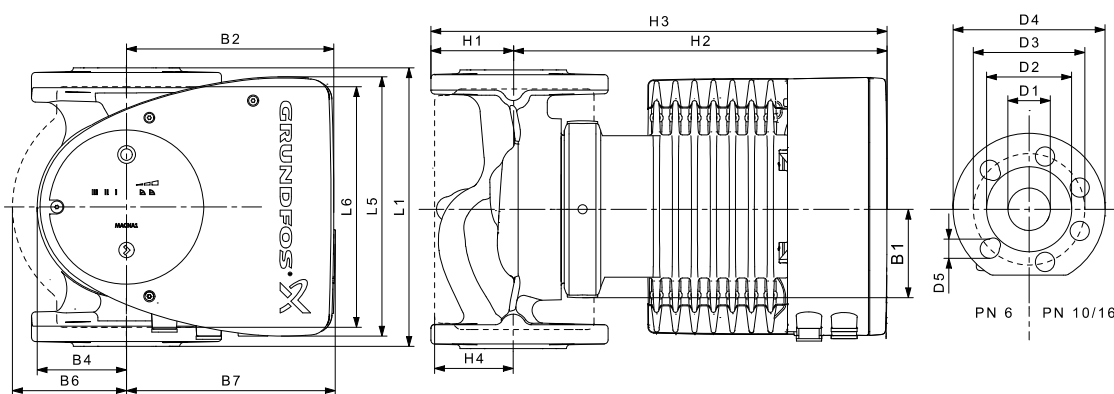


Speed	P1 [W]	I _{1/11} [A]
Min.	23.2	0.24
Max.	190	0.90

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.21.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
20.7	23.0	0.057



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 65-40 F (N)	340	204	296	84	164	73	133	133	74	312	386	94	65	119	130/145	185	14/19

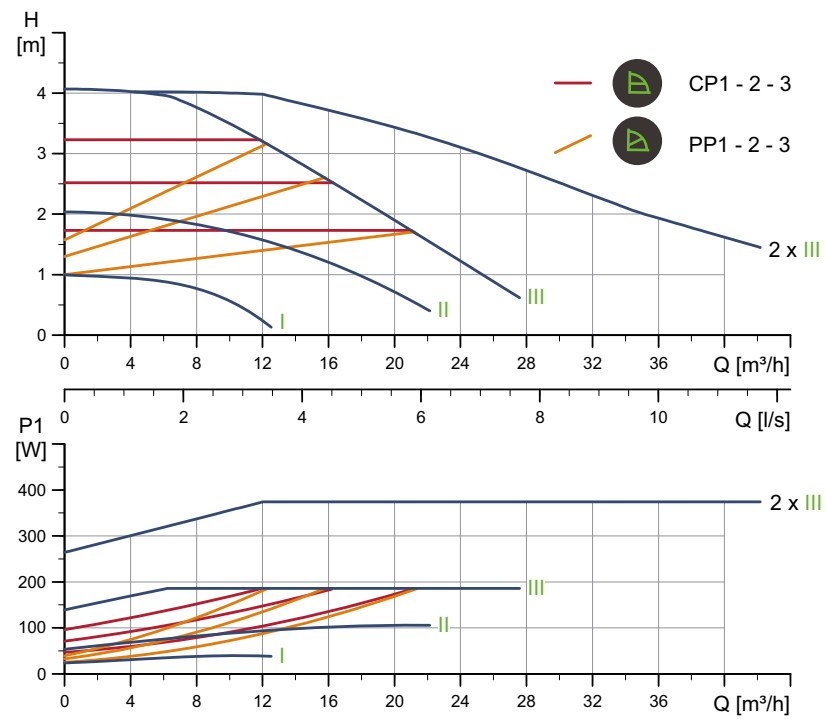
For product numbers, see page 114.

TM05 6300 4712

TM05 5276 3512

MAGNA1 D 65-40 F

1 x 230 V, 50/60 Hz

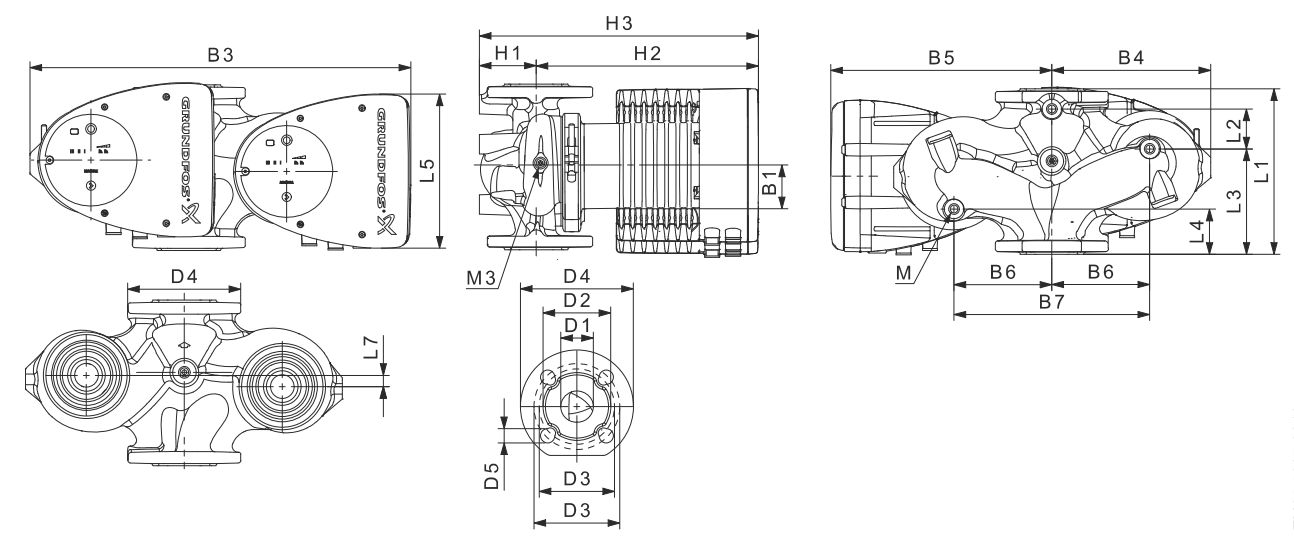


Speed	P1 [W]	I _{1/1} [A]
Min.	23.9	0.26
Max.	189	0.89

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.23.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
38.5	46.0	0.132



Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 65-40 F	340	218	92	92	204	0	84	522	228	294	130	260	77	312	389	65	119	130/145	185	14/19	12	1/4

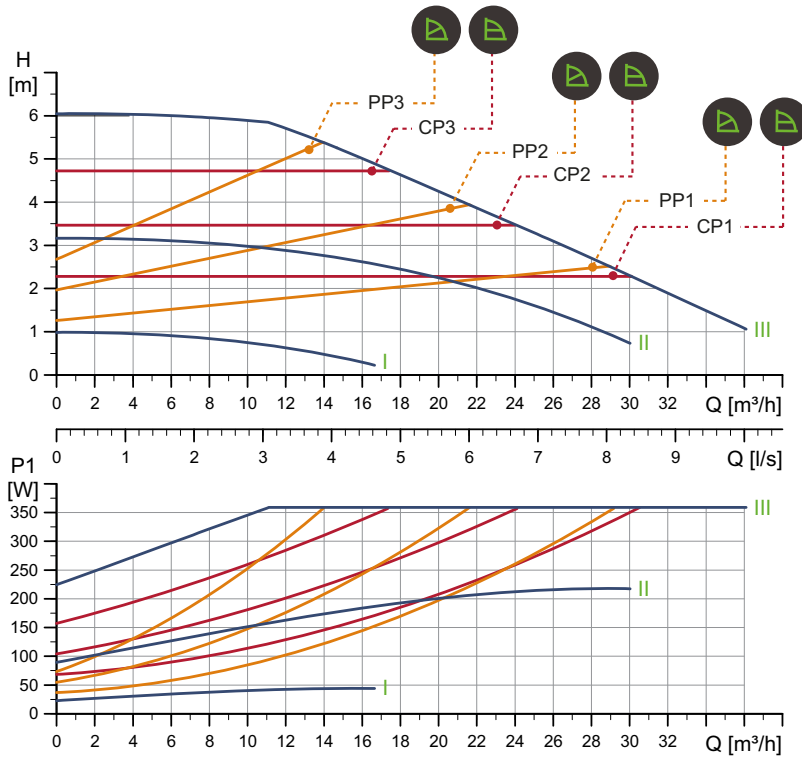
For product numbers, see page 114.

TM05 6347 4712

TM05 5937 3613

MAGNA1 65-60 F (N)

1 x 230 V, 50/60 Hz

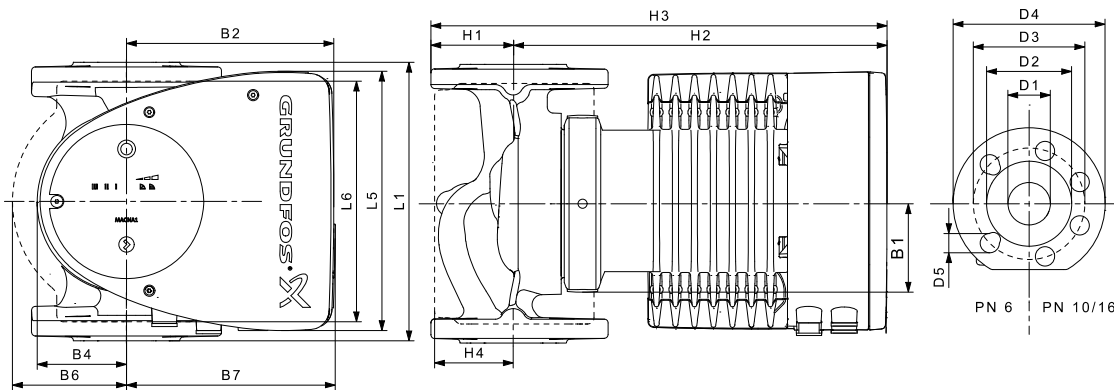


Speed	P1 [W]	I _{1/1} [A]
Min.	23.2	0.24
Max.	365	1.64

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.20

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
20.7	23.0	0.057



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 65-60 F (N)	340	204	296	84	164	73	133	133	74	312	386	94	65	119	130/145	185	14/19

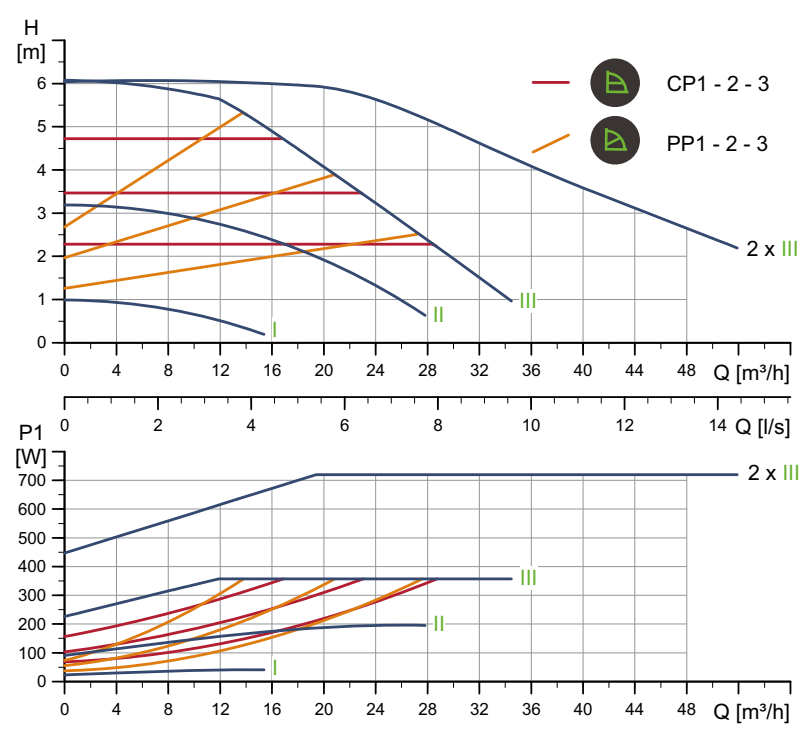
For product numbers, see page 114.

TM05 6301 4712

TM05 5276 3512

MAGNA1 D 65-60 F

1 x 230 V, 50/60 Hz

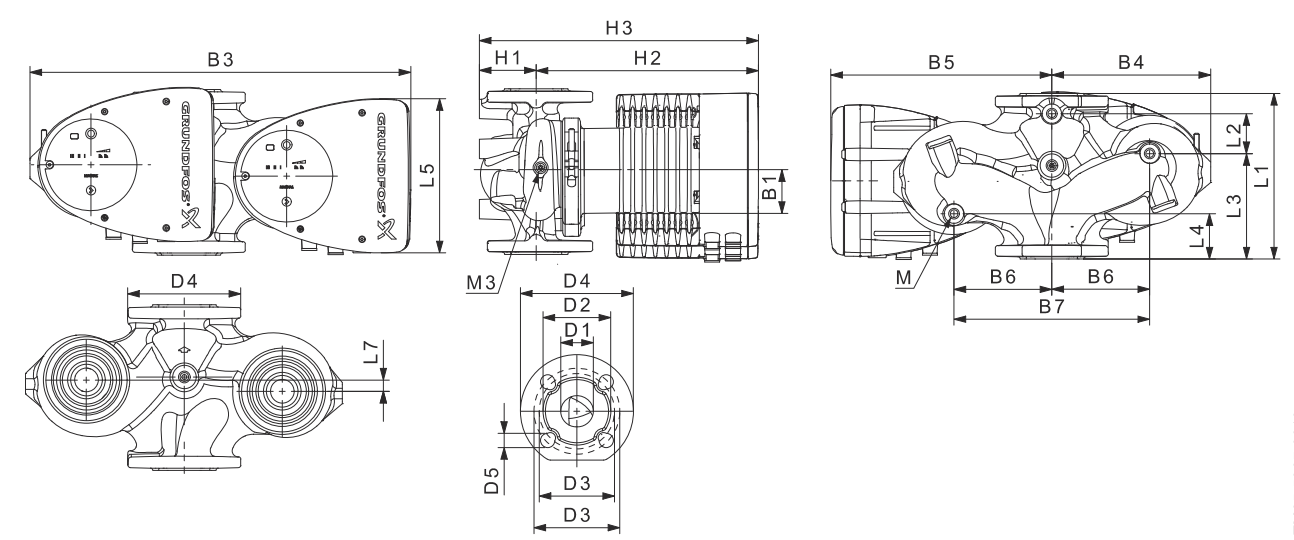


Speed	P1 [W]	I _{1/1} [A]
Min.	21	0.24
Max.	364	1.63

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
38.5	46.0	0.132



Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 65-60 F	340	218	92	92	204	0	84	522	228	294	130	260	77	312	389	65	119	130/145	185	14/19	12	1/4

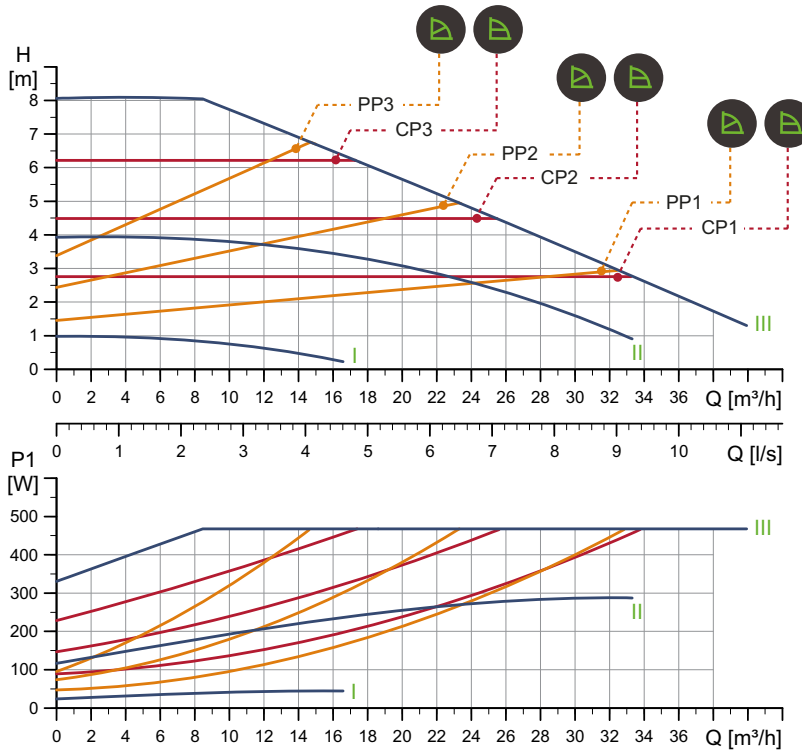
For product numbers, see page 114.

TM05 6348 4712

TM05 5937 3613

MAGNA1 65-80 F (N)

1 x 230 V, 50/60 Hz



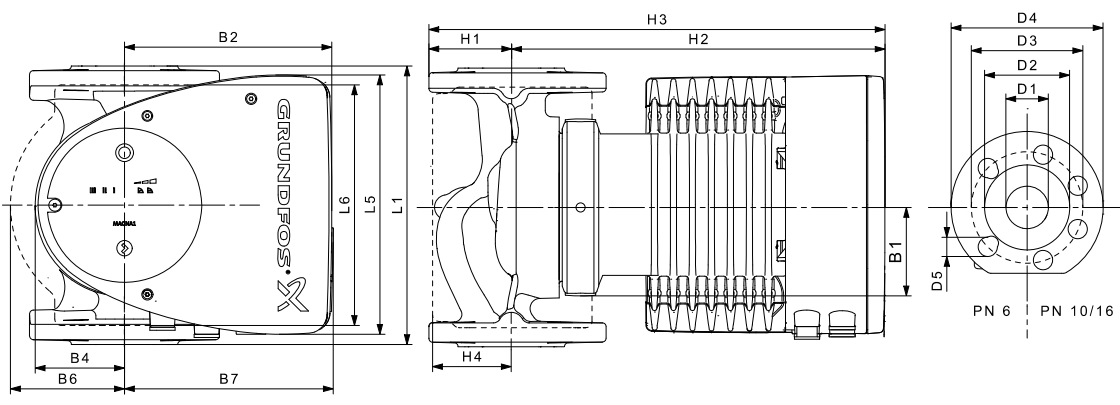
TM05 6302 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	24.2	0.26
Max.	476	2.11

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.20.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
21.6	23.8	0.057



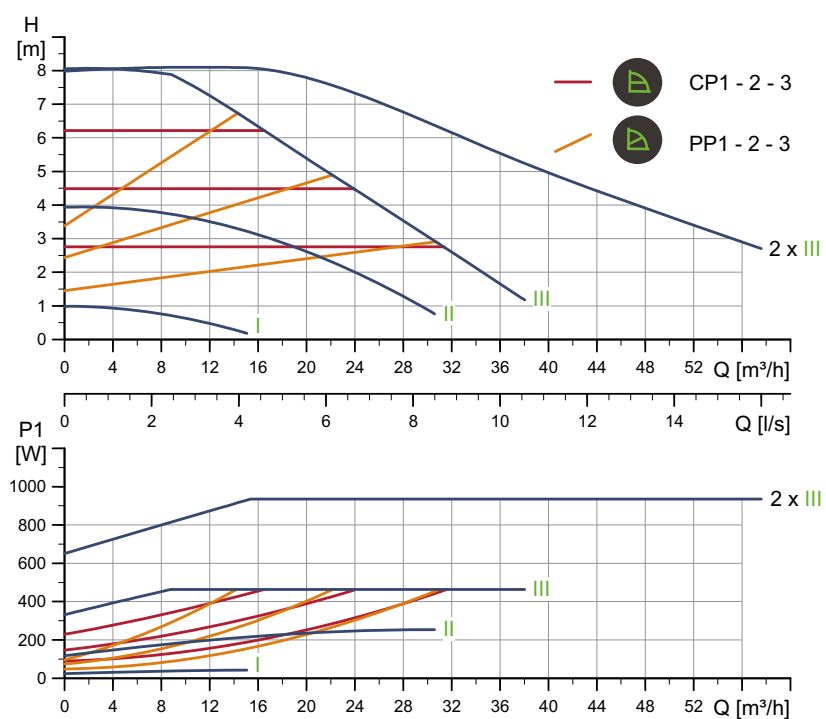
TM05 5276 3512

Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 65-80 F (N)	340	204	296	84	164	73	133	133	74	312	386	94	65	119	130/145	185	14/19

For product numbers, see page 114.

MAGNA1 D 65-80 F

1 x 230 V, 50/60 Hz



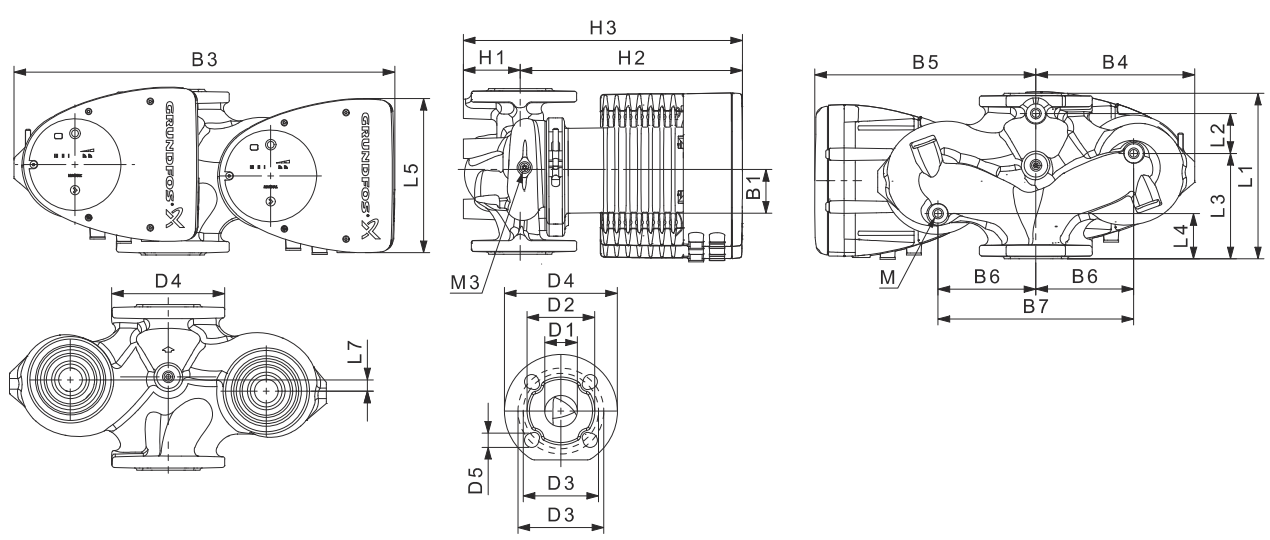
TM05 6349 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	24.2	0.26
Max.	472	2.11

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
40.3	47.8	0.132



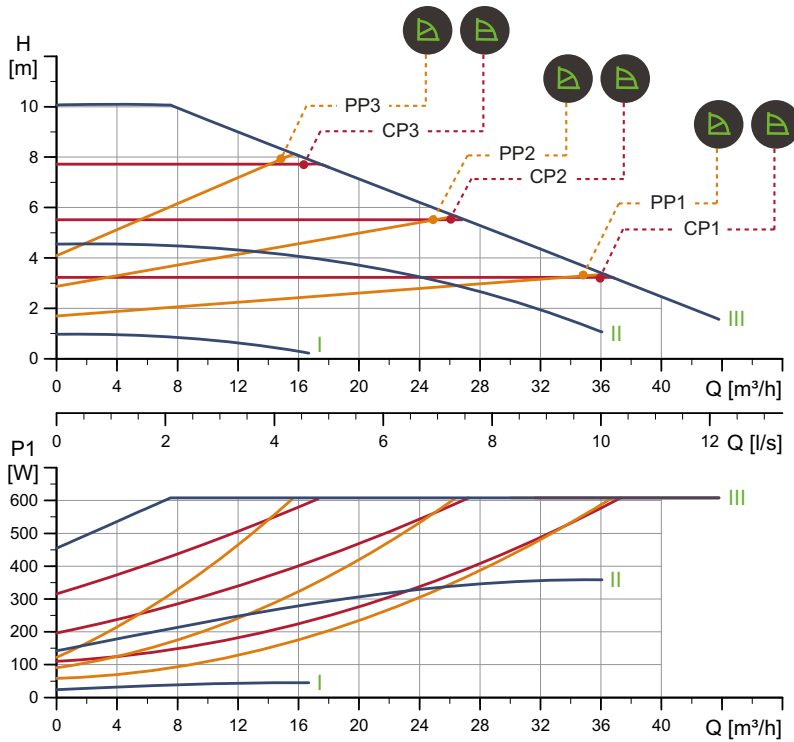
TM05 5937 3613

Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 65-80 F	340	218	92	92	204	0	84	522	228	294	130	260	77	312	389	65	119	130/145	185	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 65-100 F (N)

1 x 230 V, 50/60 Hz

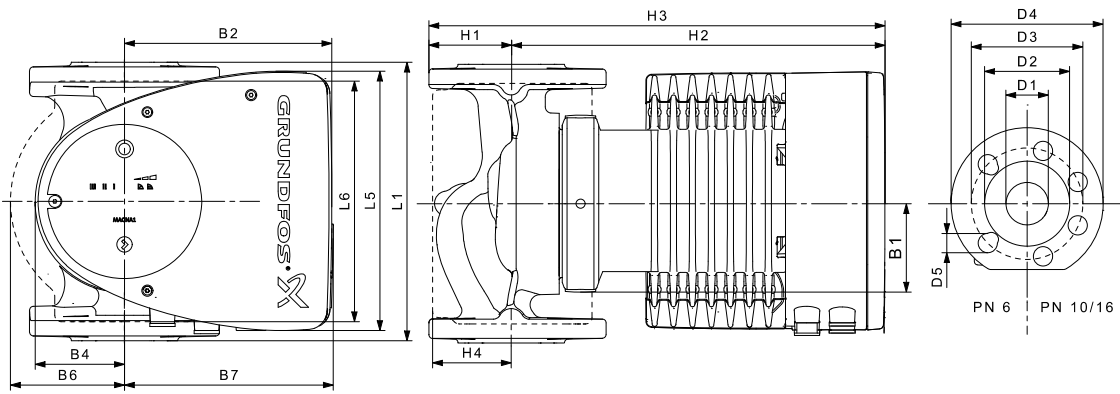


Speed	P1 [W]	I _{1/1} [A]
Min.	24.7	0.26
Max.	619	2.73

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.20.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
21.6	23.8	0.057



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 65-100 F (N)	340	204	296	84	164	73	133	133	74	312	386	94	65	119	130/145	185	14/19

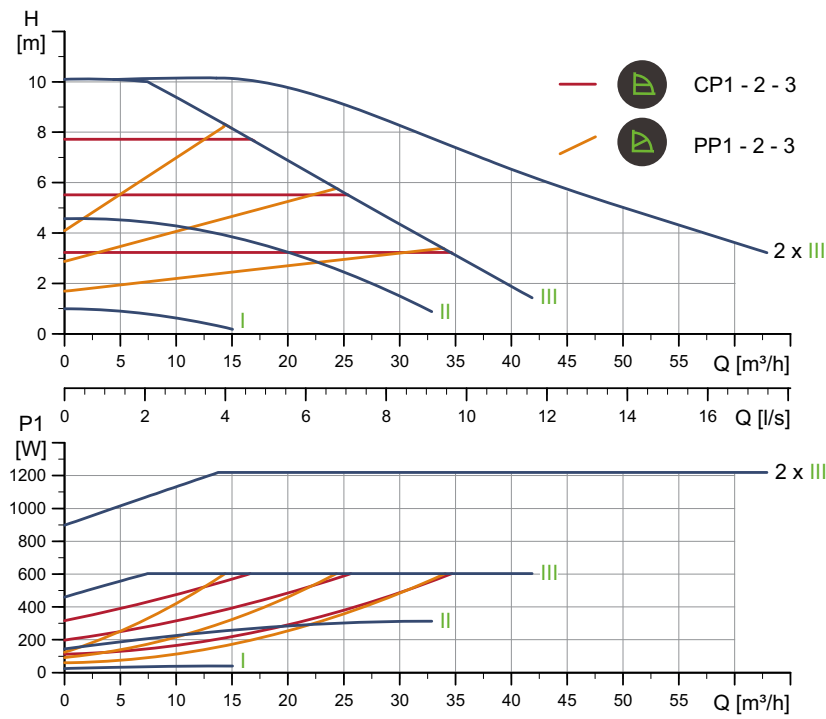
For product numbers, see page 114.

TM05 6303 4712

TM05 5276 3512

MAGNA1 D 65-100 F

1 x 230 V, 50/60 Hz



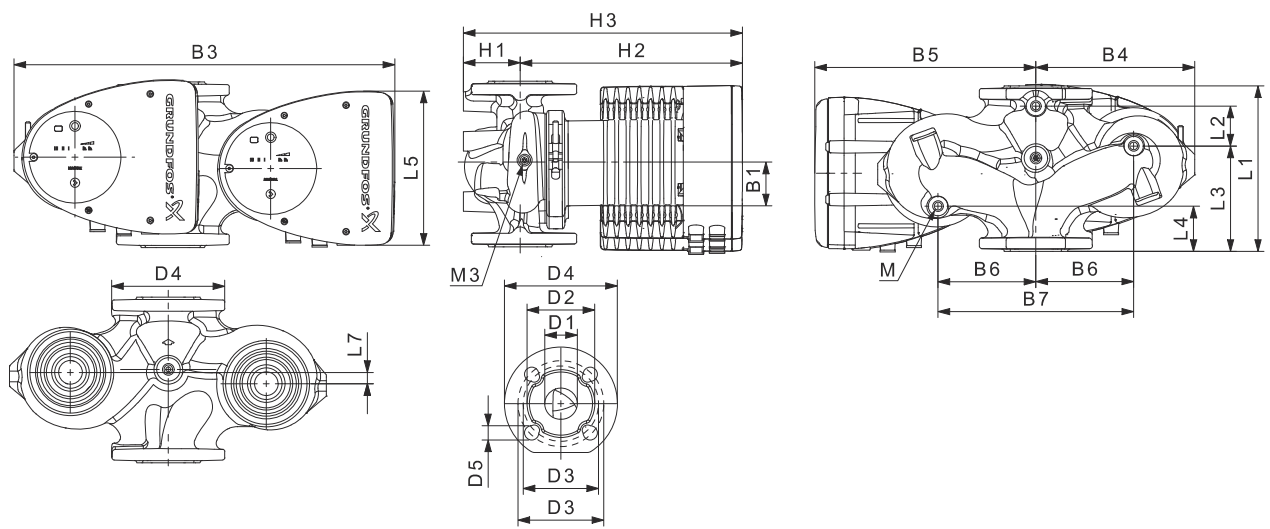
TM05 6350 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	24.1	0.26
Max.	614	2.71

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
40.3	47.8	0.132



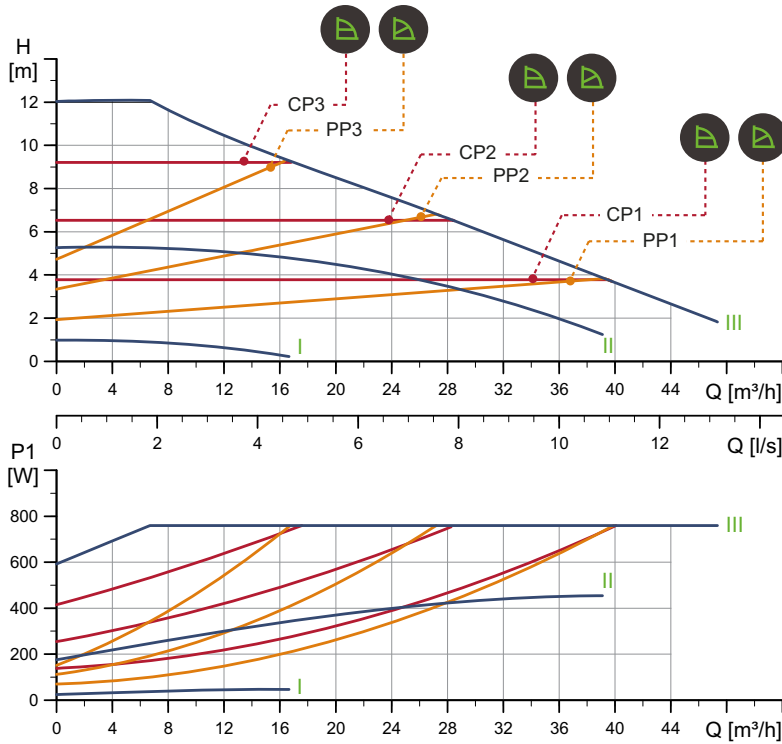
TM05 5937 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 65-100 F	340	218	92	92	204	0	84	522	228	294	130	260	77	312	389	65	119	130/145	185	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 65-120 F (N)

1 x 230 V, 50/60 Hz

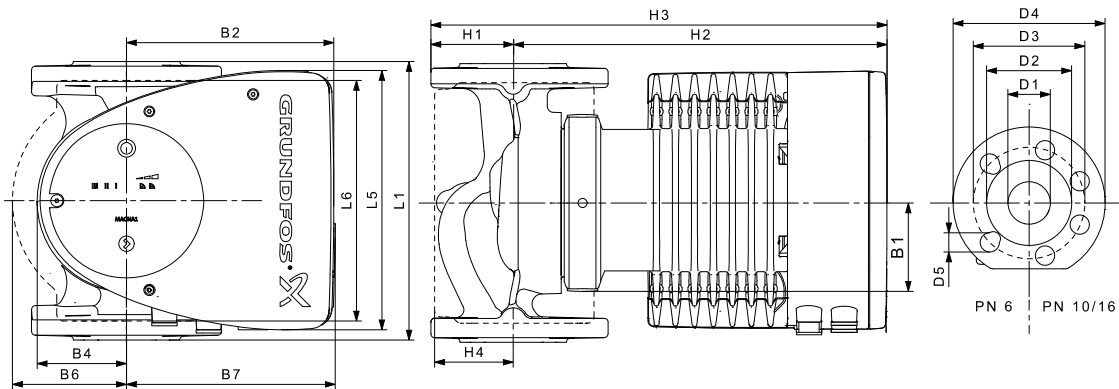


Speed	P1 [W]	I _{1/1} [A]
Min.	24.38	0.26
Max.	774	3.42

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.18.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
21.6	23.8	0.057



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 65-120 F (N)	340	204	296	84	164	73	133	133	74	312	386	94	65	119	130/145	185	14/19

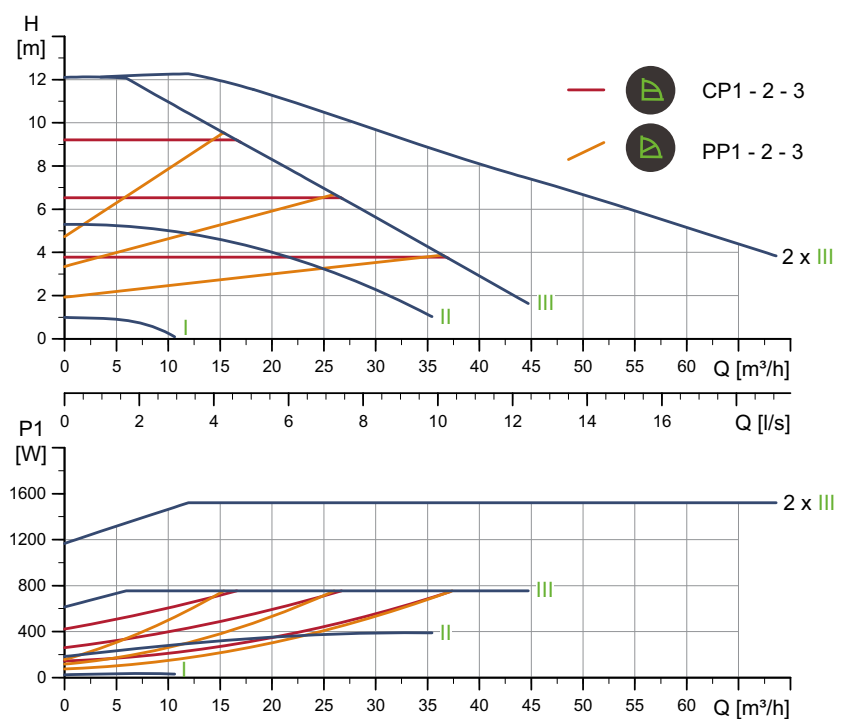
For product numbers, see page 114.

TM05 6304 4712

TM05 5276 3512

MAGNA1 D 65-120 F

1 x 230 V, 50/60 Hz



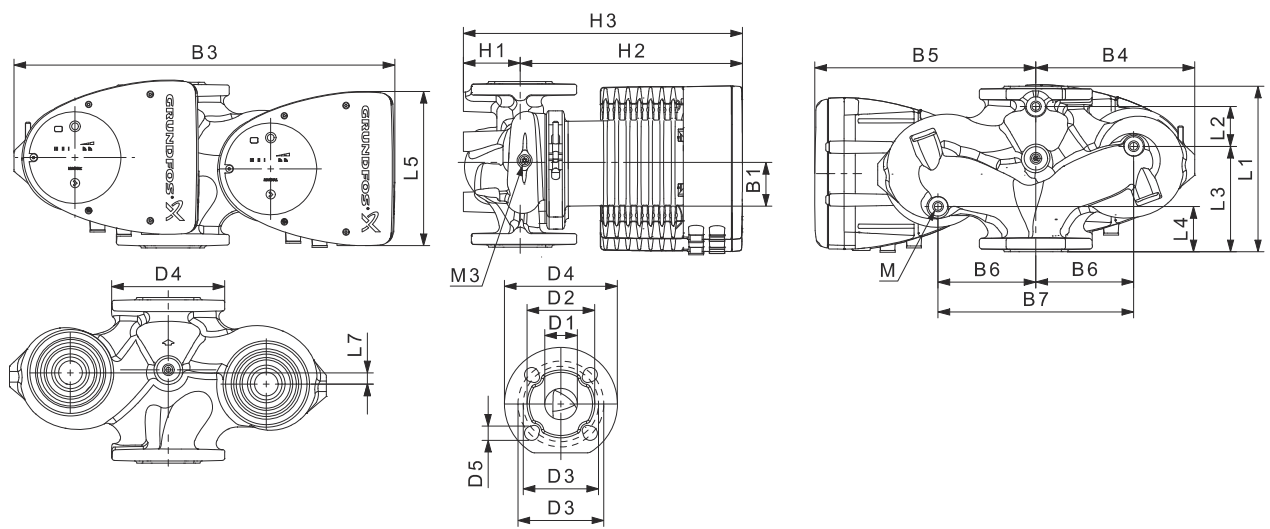
TM05 6351 4712

Speed	P1 [W]	I _{l1} [A]
Min.	24.9	0.27
Max.	769	3.39

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
40.3	47.8	0.132



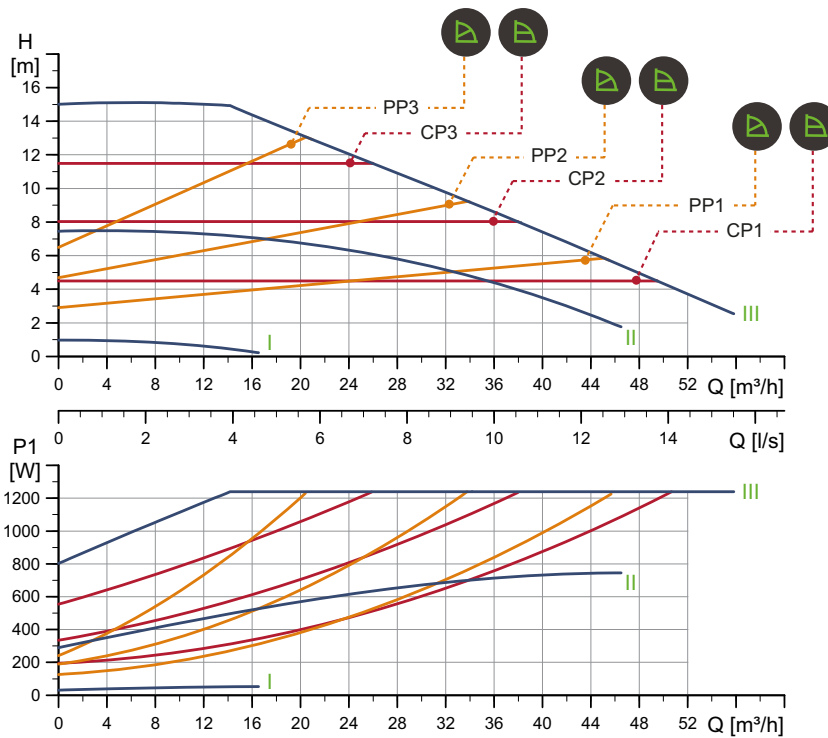
TM05 5937 3613

Pump type	Dimensions [mm]																				Rp	
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 65-120 F	340	218	92	92	204	0	84	522	228	294	130	260	77	312	389	65	119	130/145	185	14/19	12	1/4

For product numbers, see page 114.

MAGNA1 65-150 F (N)

1 x 230 V, 50/60 Hz

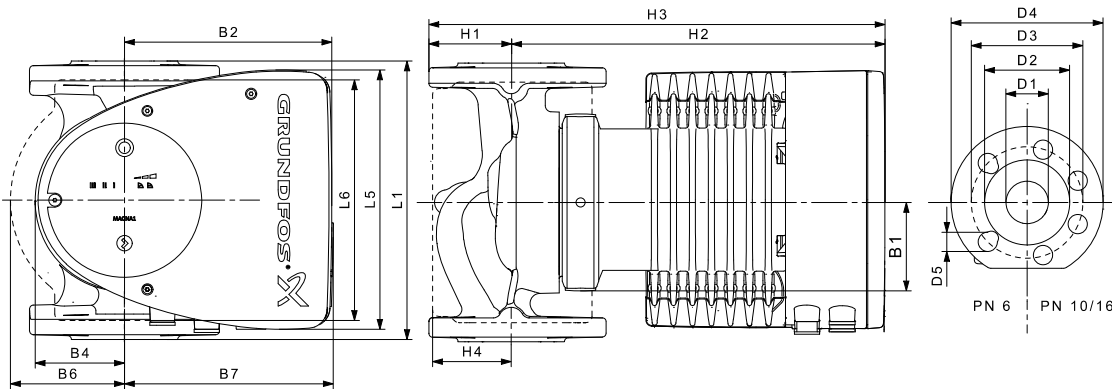


Speed	P1 [W]	I _{1/1} [A]
Min.	30.7	0.31
Max.	1263	5.53

The pump incorporates overload protection.

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Also available with: Stainless-steel pump housing, type N.
 Specific EEI: 0.18.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
24.3	26.6	0.057



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 65-150 F (N)	340	204	296	84	164	73	133	133	74	312	386	94	65	119	130/145	185	14/19

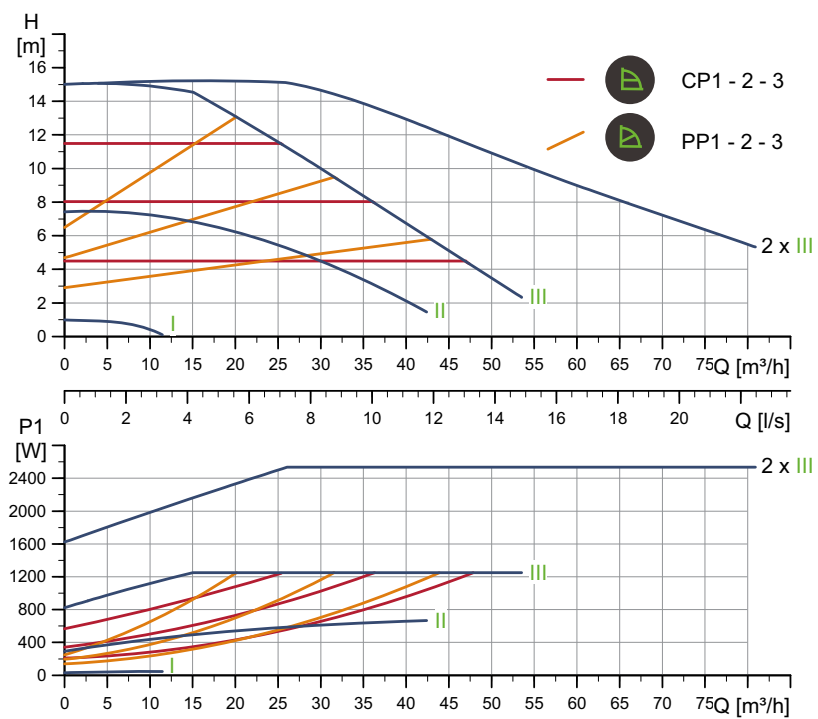
For product numbers, see page 114.

TM05 6305 4712

TM05 5276 3512

MAGNA1 D 65-150 F

1 x 230 V, 50/60 Hz

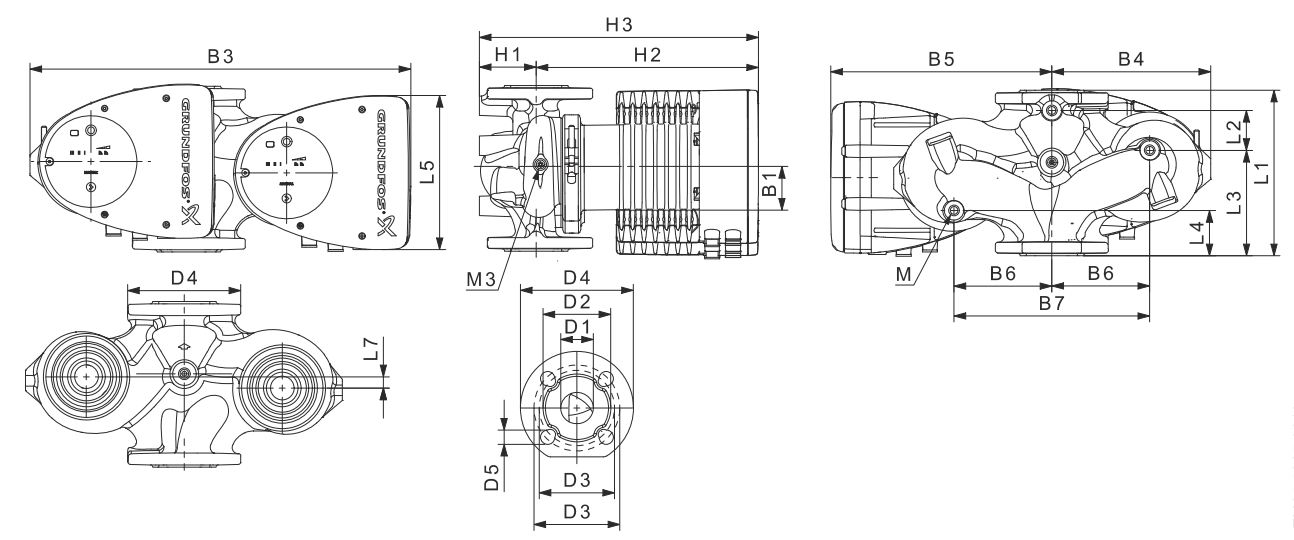


Speed	P1 [W]	I _{1/1} [A]
Min.	32.3	0.33
Max.	1275	5.62

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
45.7	53.2	0.132



Pump type	Dimensions [mm]																			Rp		
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 65-150 F	340	218	92	92	204	0	84	522	228	294	130	260	77	312	389	65	119	130/145	185	14/19	12	1/4

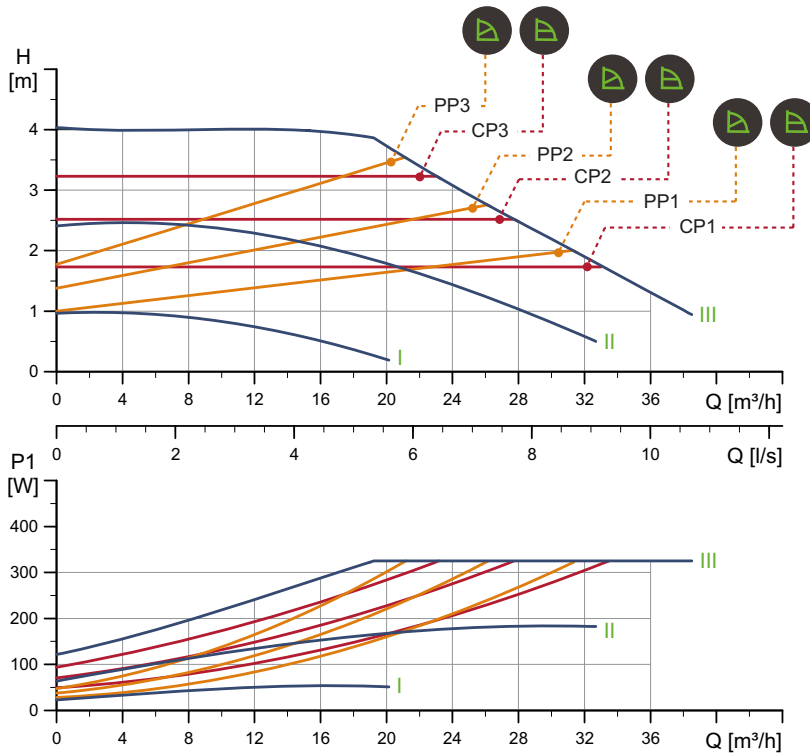
For product numbers, see page 114.

TM05 6352 4712

TM05 6937 3613

MAGNA1 80-40 F

1 x 230 V, 50/60 Hz

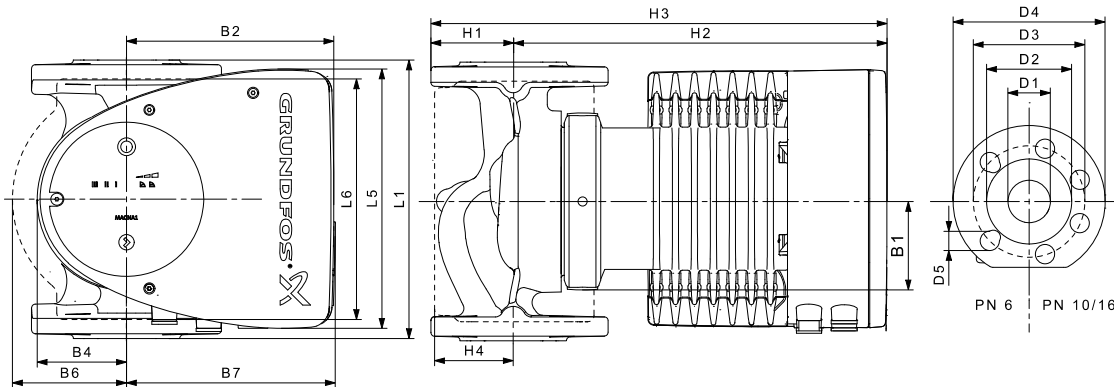


Speed	P1 [W]	I _{1/1} [A]
Min.	24	0.26
Max.	331	1.49

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
26.8	29.1	0.072



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 80-40 F	360	204	310	84	164	73	163	163	96	318	413	115	80	128	150/160	200	19

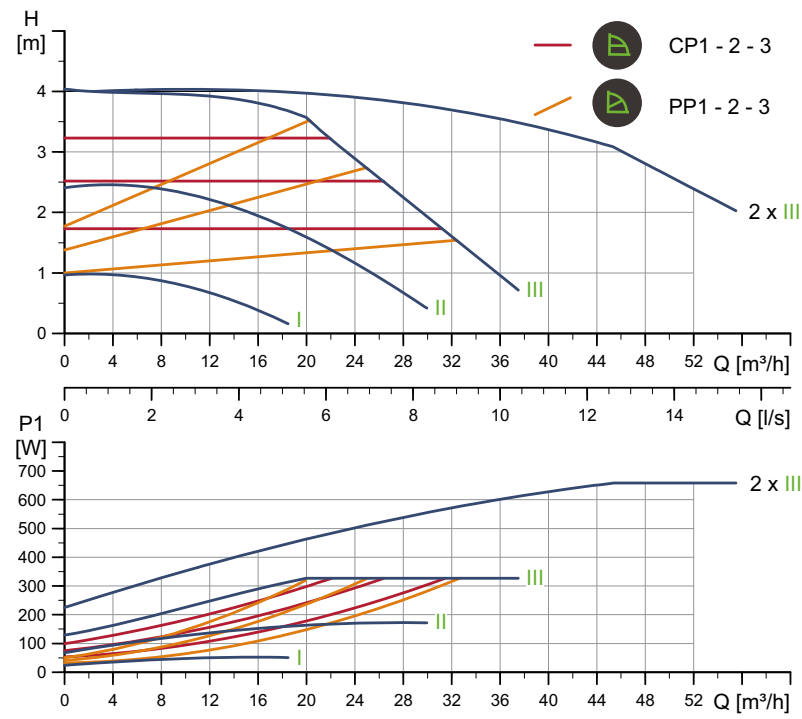
For product numbers, see page 114.

TM05 6306 4712

TM05 5276 3512

MAGNA1 D 80-40 F

1 x 230 V, 50/60 Hz



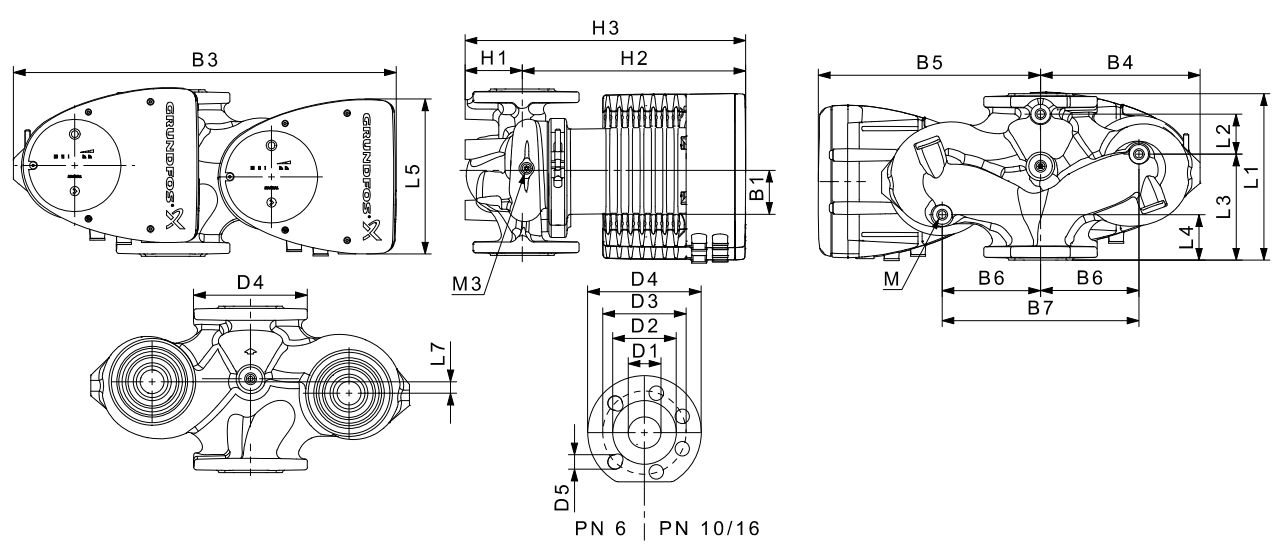
TM05 6353 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	25.3	0.27
Max.	333	1.49

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
45.9	55.7	0.208



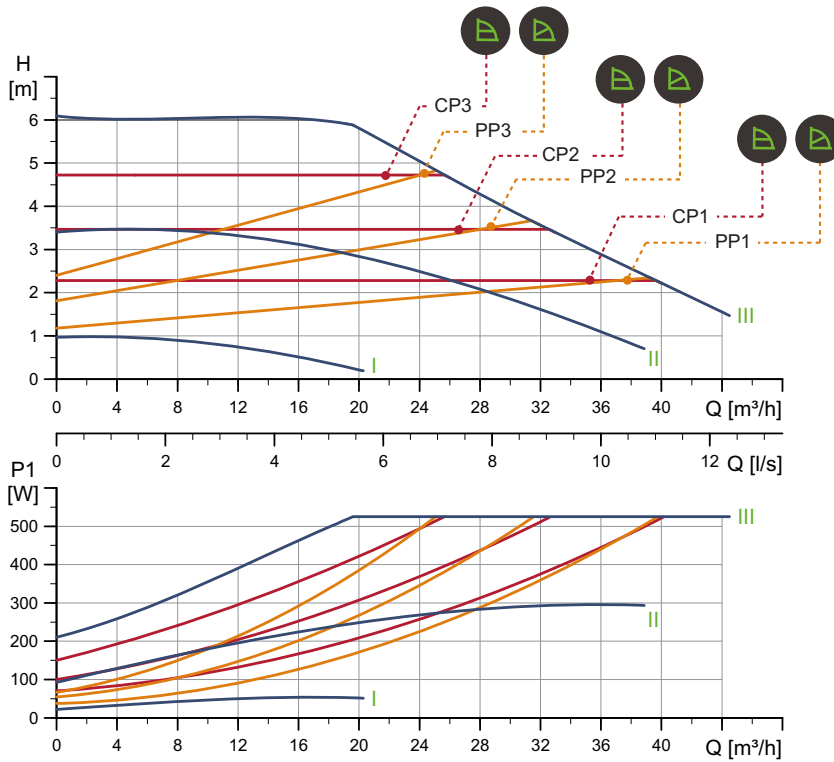
TM05 5275 3512

Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 80-40 F	360	218	102	102	204	0	84	538	244	294	130	260	97	318	415	80	128	150/160	200	19	12	1/4

For product numbers, see page 114.

MAGNA1 80-60 F

1 x 230 V, 50/60 Hz

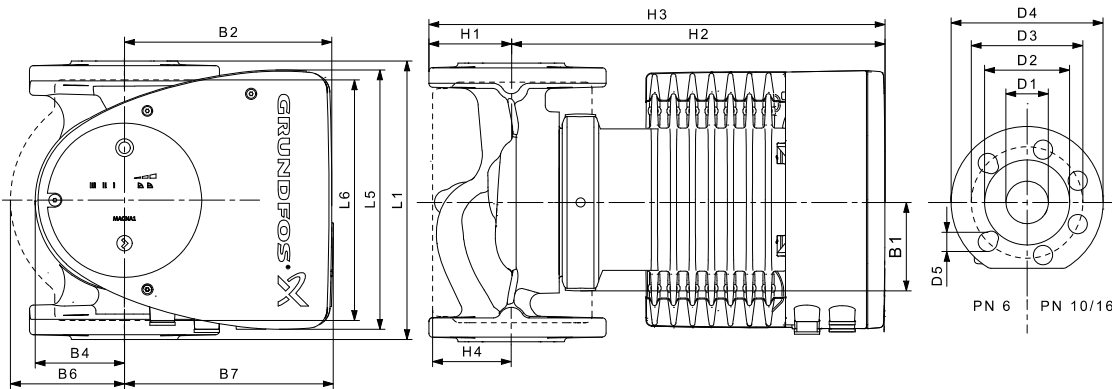


Speed	P1 [W]	$I_{1/1}$ [A]
Min.	23.6	0.24
Max.	536	2.37

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.20.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
26.8	29.1	0.072



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 80-60 F	360	204	310	84	164	73	163	163	96	318	413	115	80	128	150/160	200	19

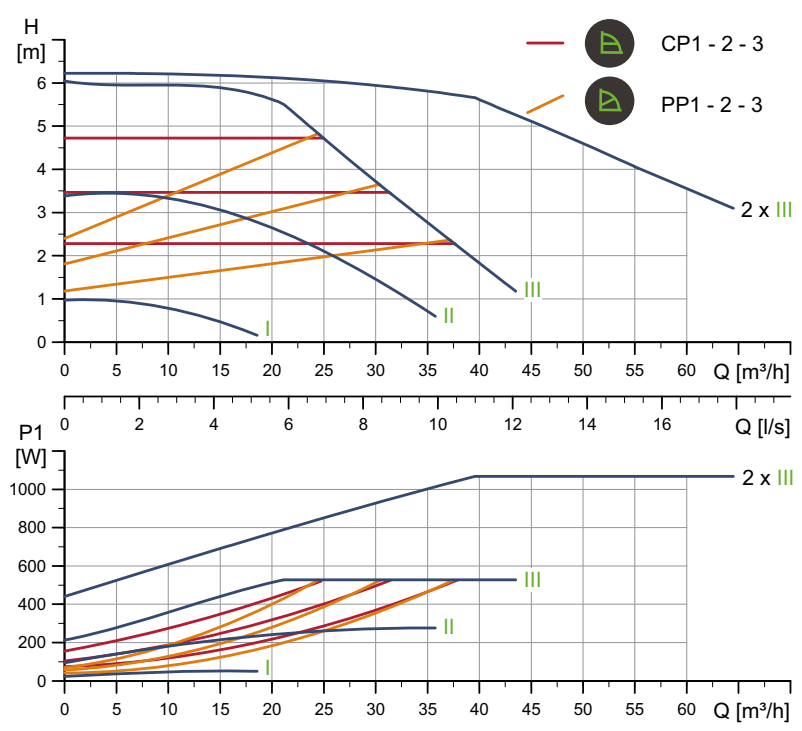
For product numbers, see page 114.

TM05 6307 4712

TM05 5276 3512

MAGNA1 D 80-60 F

1 x 230 V, 50/60 Hz

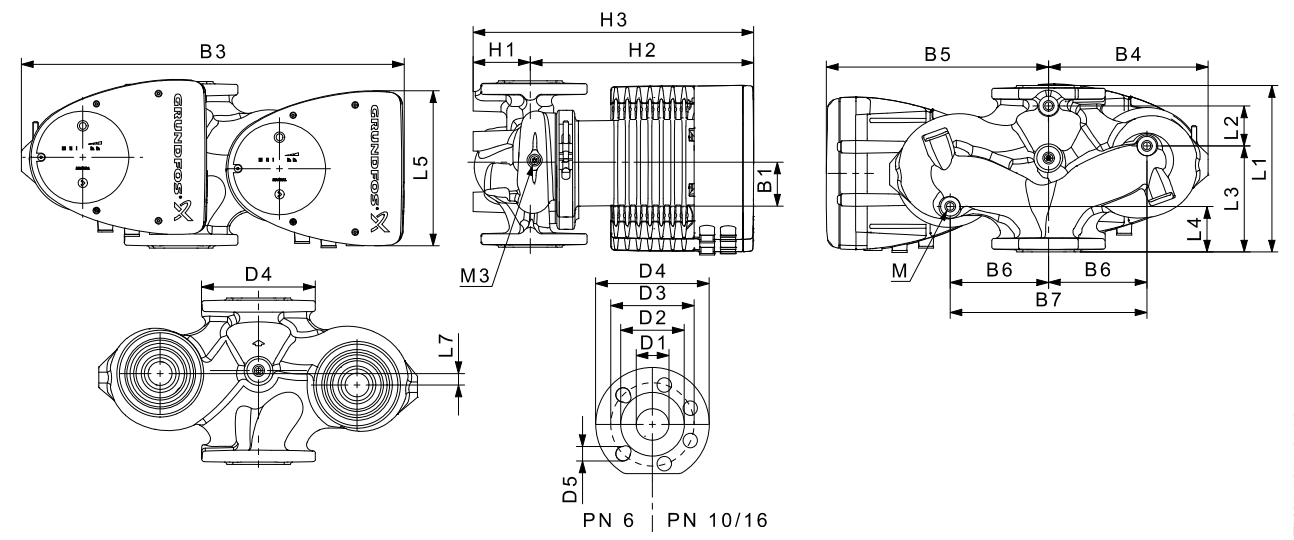


Speed	P1 [W]	I _{1/1} [A]
Min.	24.7	0.27
Max.	537	2.38

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.20.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
45.9	55.7	0.208



Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2		D3	D4	D5	M
MAGNA1 D 80-60 F	360	218	102	102	204	0	84	538	244	294	130	260	97	318	415	80	128	150/160	200	19	12	1/4

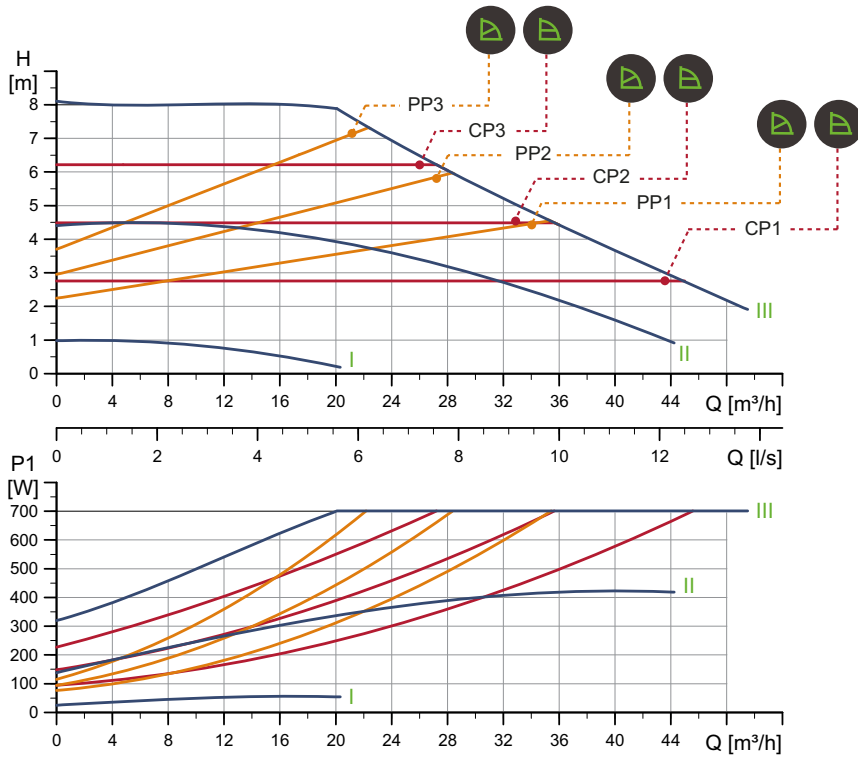
For product numbers, see page 114.

TM05 6354 4712

TM05 5275 3512

MAGNA1 80-80 F

1 x 230 V, 50/60 Hz

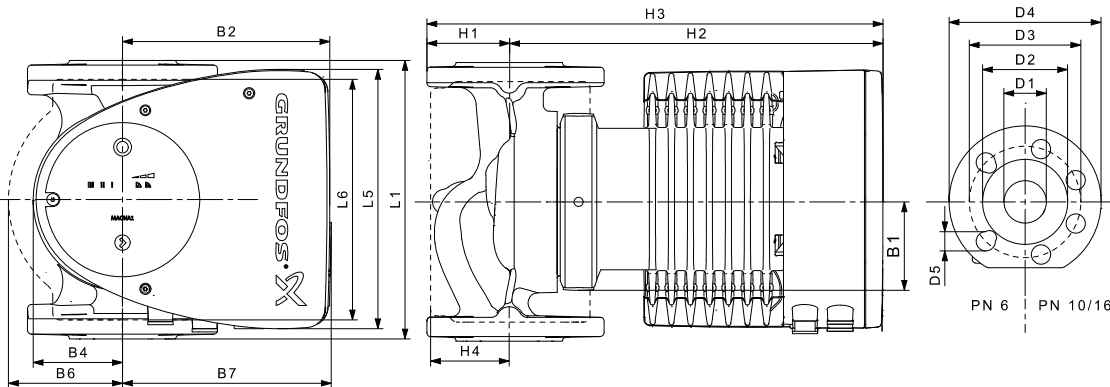


Speed	P1 [W]	I _{1/1} [A]
Min.	26.3	0.28
Max.	715	3.14

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.20.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
29.6	32.0	0.072



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 80-80 F	360	204	310	84	164	73	163	163	96	318	413	115	80	128	150/160	200	19

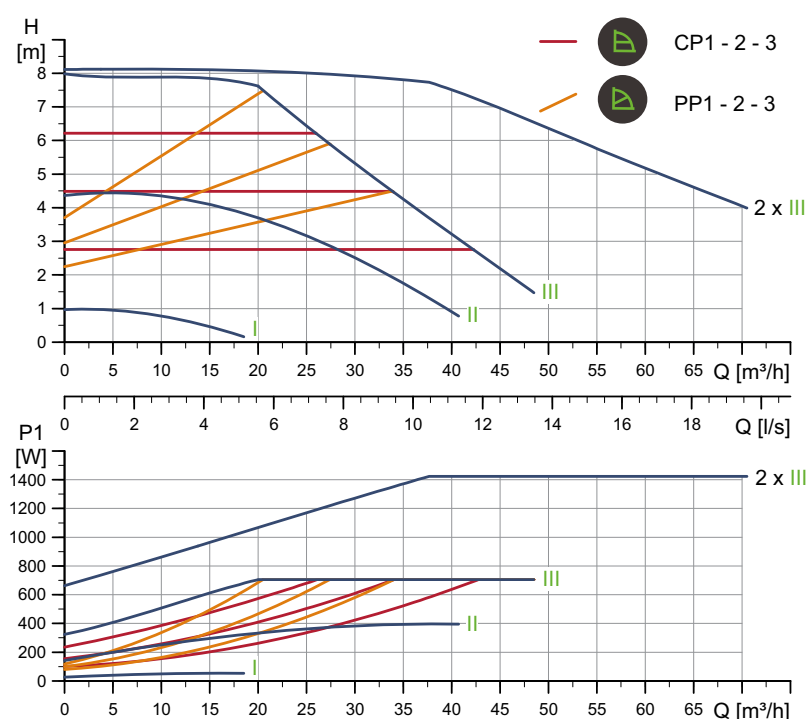
For product numbers, see page 114.

TM05 6308 4712

TM05 6276 3512

MAGNA1 D 80-80 F

1 x 230 V, 50/60 Hz

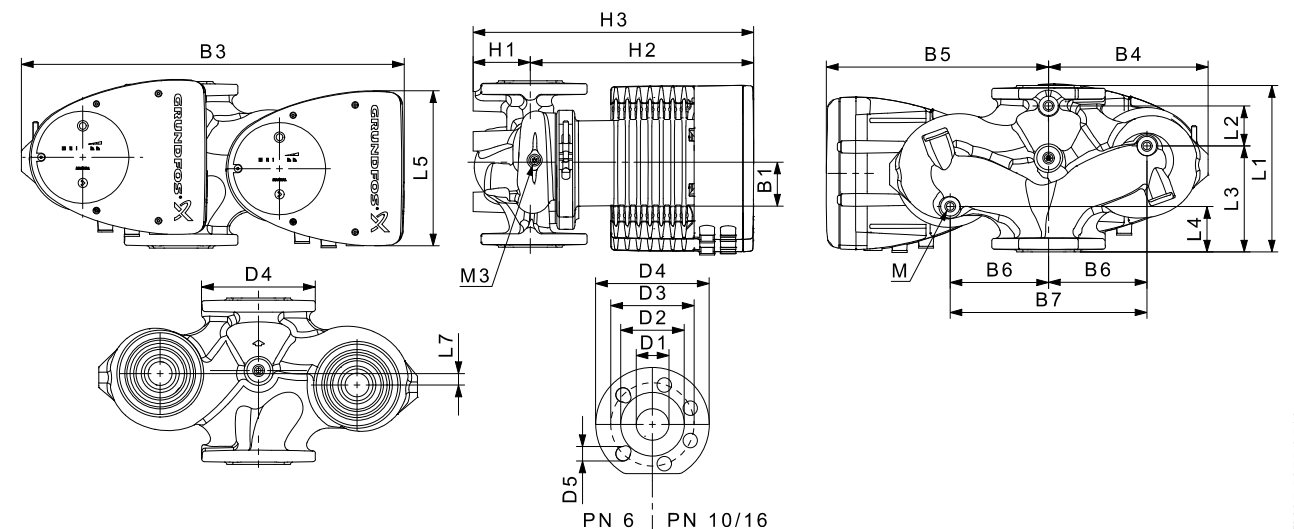


Speed	P1 [W]	I _{1/1} [A]
Min.	27.3	0.27
Max.	718	3.15

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
51.6	61.3	0.208



Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2		D3	D4	D5	M
MAGNA1 D 80-80 F	360	218	102	102	204	0	84	538	244	294	130	260	97	318	415	80	128	150/160	200	19	12	1/4

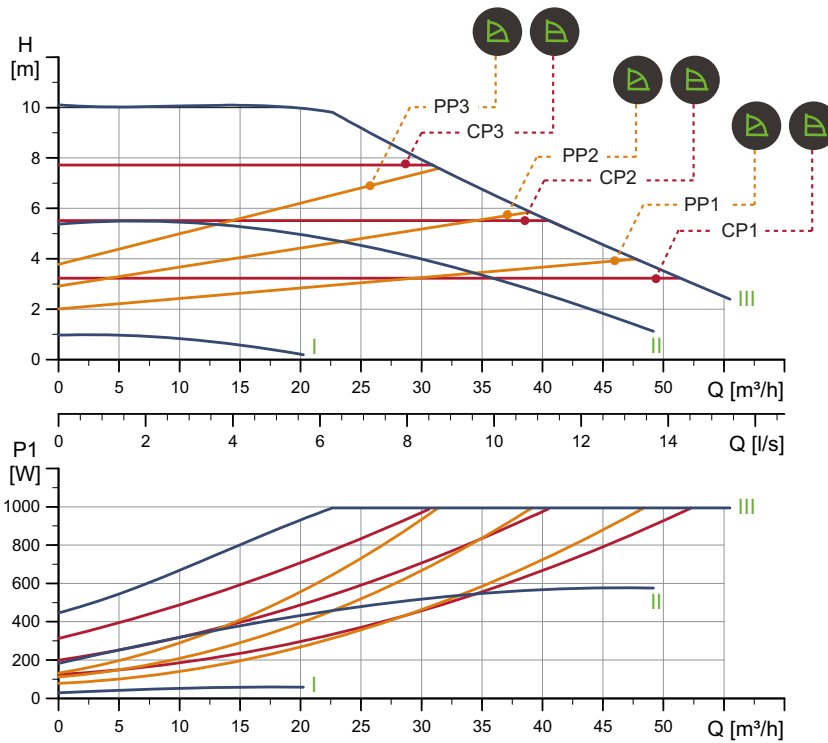
For product numbers, see page 114.

TM05 6355 4712

TM05 5275 3512

MAGNA1 80-100 F

1 x 230 V, 50/60 Hz

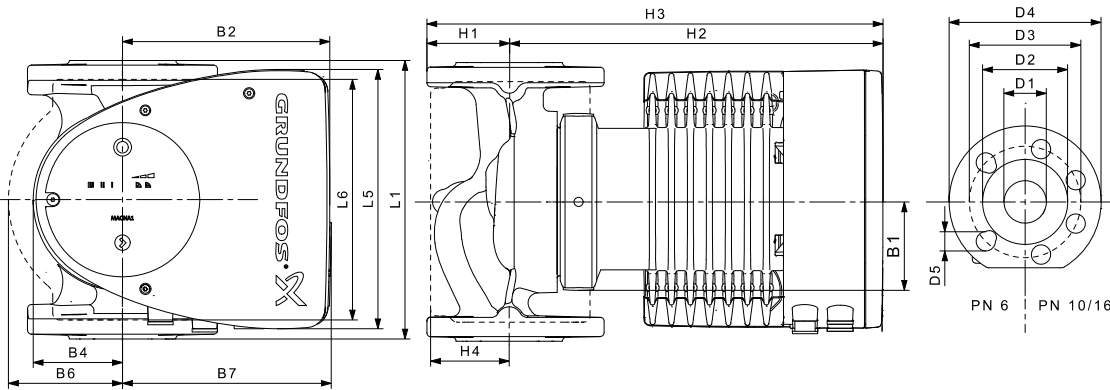


Speed	P1 [W]	I _{1/1} [A]
Min.	30.7	0.31
Max.	1014	4.45

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
30.2	32.6	0.072



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 80-100 F	360	204	310	84	164	73	163	163	96	318	413	115	80	128	150/160	200	19

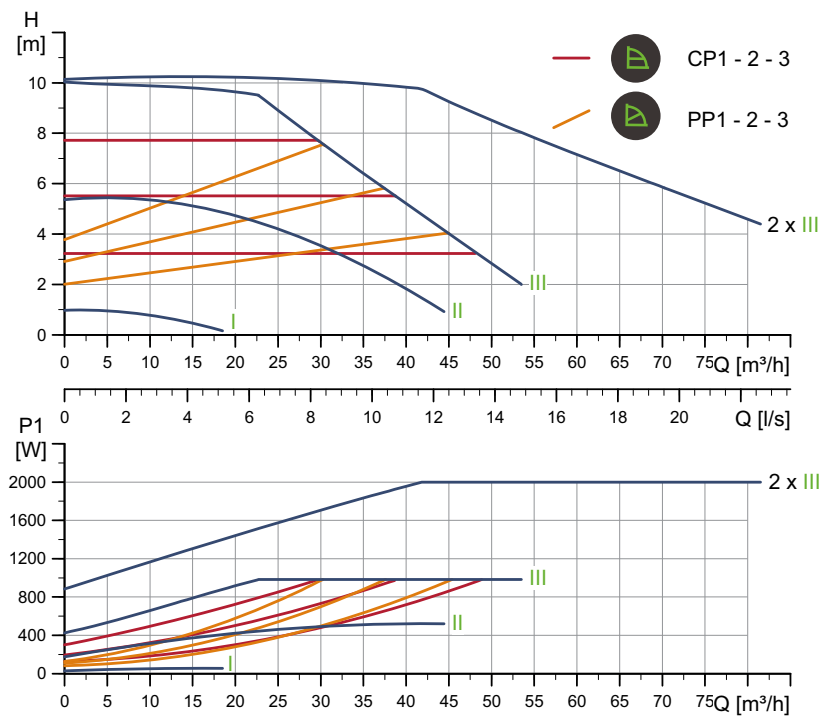
For product numbers, see page 114.

TM05 6309 4712

TM05 5276 3512

MAGNA1 D 80-100 F

1 x 230 V, 50/60 Hz

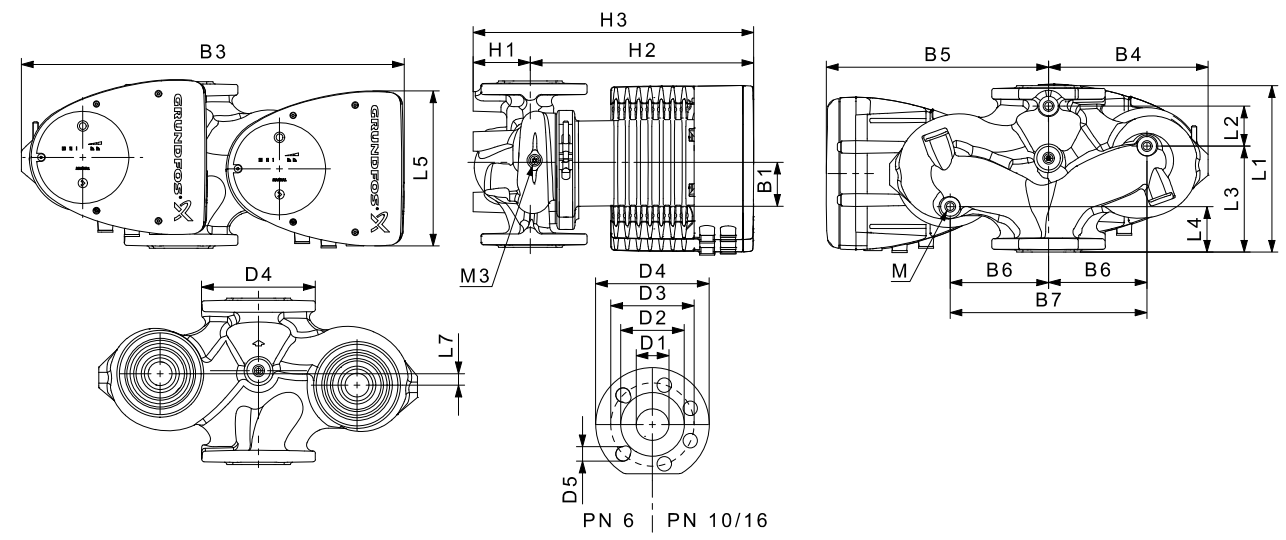


Speed	P1 [W]	I _{1/1} [A]
Min.	31	0.32
Max.	1002	4.41

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
52.7	62.5	0.208



Pump type	Dimensions [mm]																			Rp		
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4		D5	M
MAGNA1 D 80-100 F	360	218	102	102	204	0	84	538	244	294	130	260	97	318	415	80	128	150/160	200	19	12	1/4

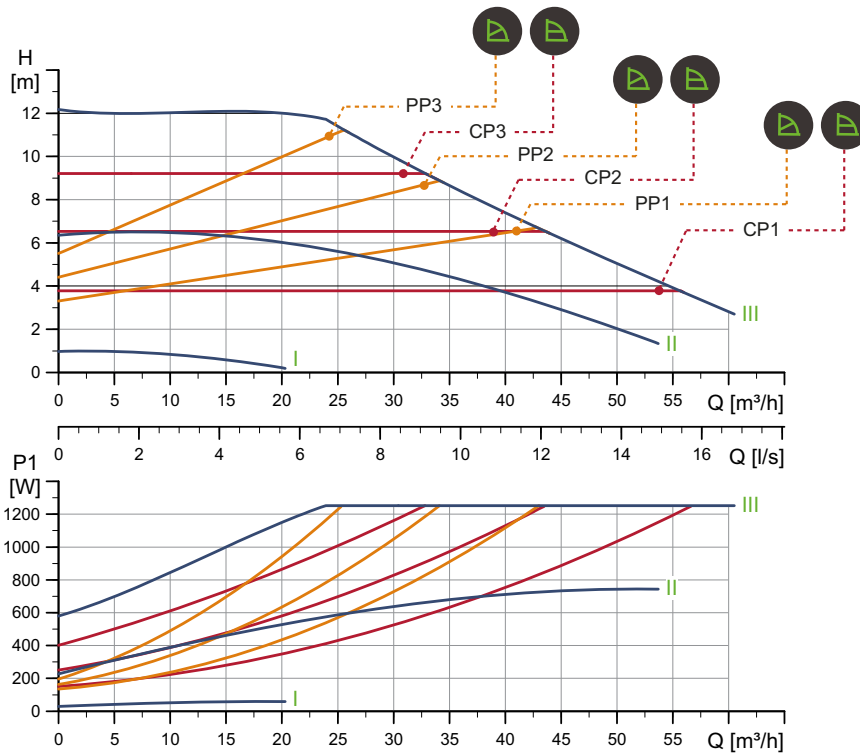
For product numbers, see page 114.

TM05 6356 4712

TM05 5275 3512

MAGNA1 80-120 F

1 x 230 V, 50/60 Hz

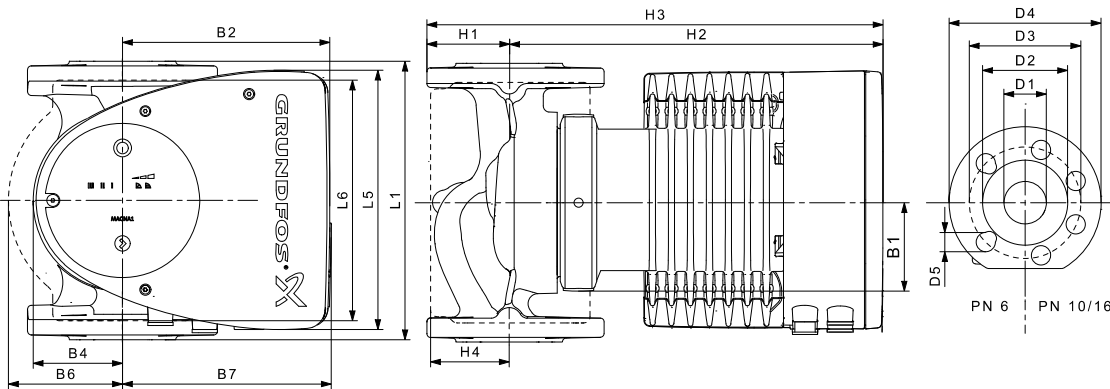


Speed	P1 [W]	I _{1/1} [A]
Min.	30.5	0.31
Max.	1277	5.59

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
30.2	32.6	0.072



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 80-120 F	360	204	310	84	164	73	163	163	96	318	413	115	80	128	150/160	200	19

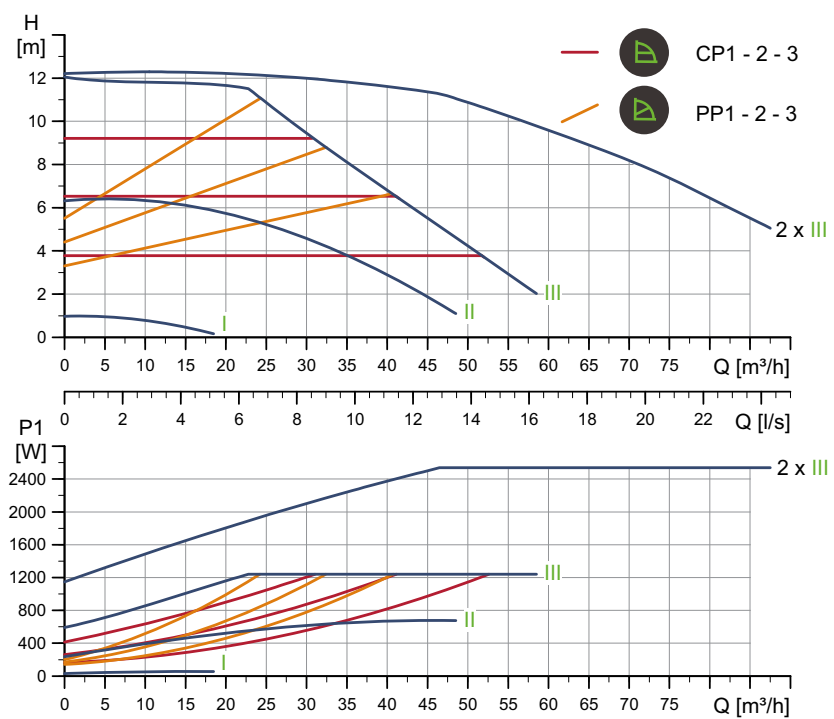
For product numbers, see page 114.

TM05 6310 4712

TM05 6276 3512

MAGNA1 D 80-120 F

1 x 230 V, 50/60 Hz

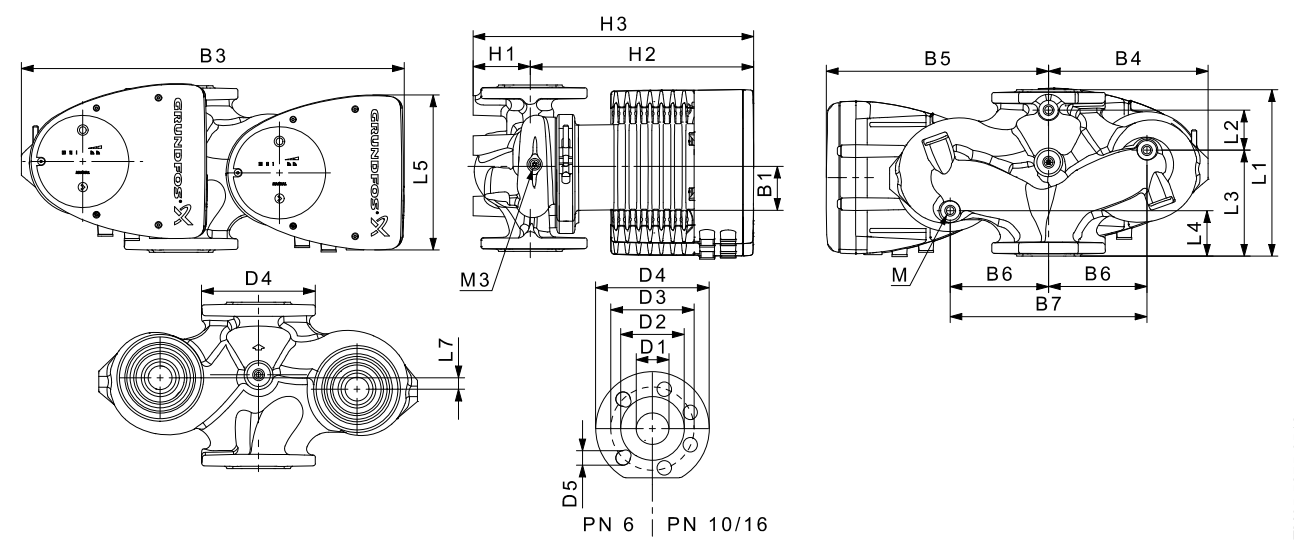


Speed	P1 [W]	I _{1/1} [A]
Min.	32.2	0.33
Max.	1265	5.54

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
52.7	62.5	0.208



Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 80-120 F	360	218	102	102	204	0	84	538	244	294	130	260	97	318	415	80	128	150/160	200	19	12	1/4

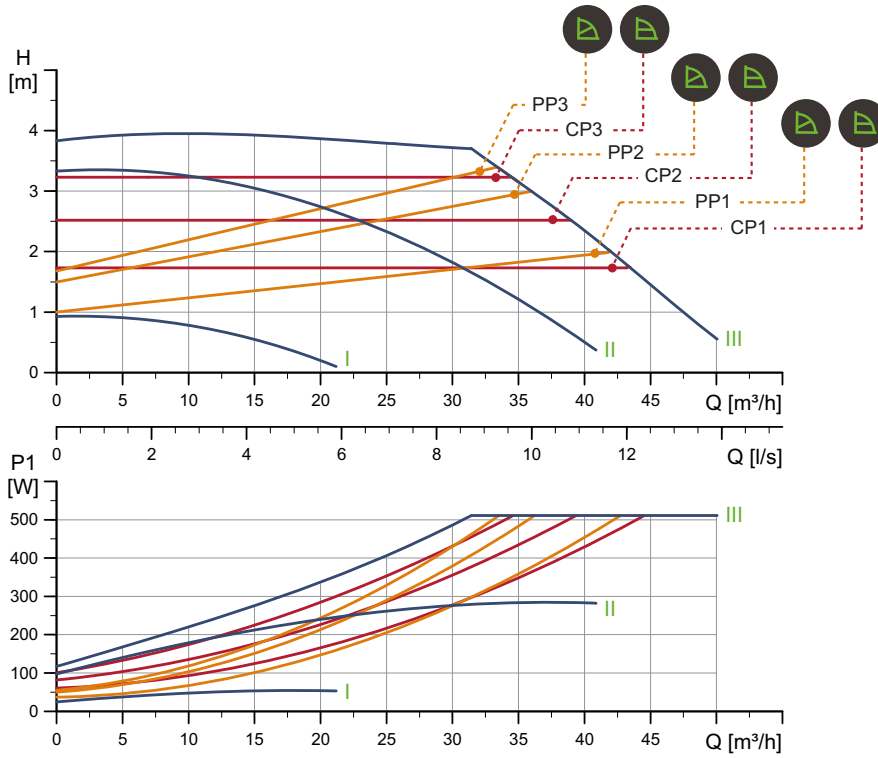
For product numbers, see page 114.

TM05 6357 4712

TM05 5275 3512

MAGNA1 100-40 F

1 x 230 V, 50/60 Hz

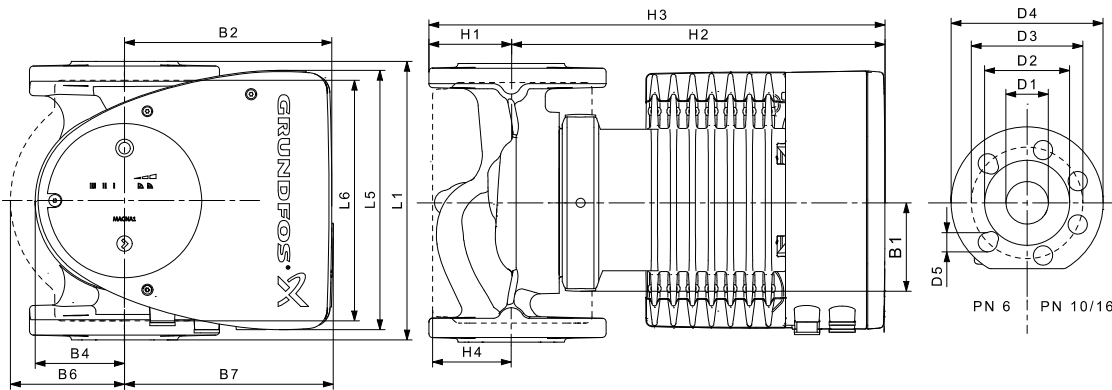


Speed	P1 [W]	I _{1/I1} [A]
Min.	26	0.27
Max.	521	2.32

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
34.2	36.4	0.099



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 100-40 F	450	204	396	84	164	73	178	178	103	330	433	120	100	160	170	220	19

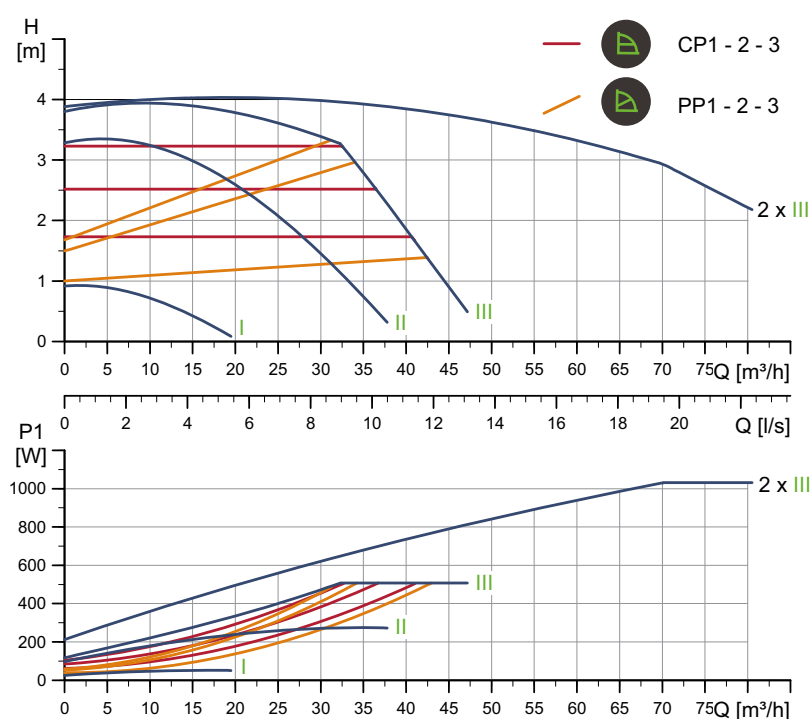
For product numbers, see page 114.

TM05 6311 4712

TM05 5276 3512

MAGNA1 D 100-40 F

1 x 230 V, 50/60 Hz

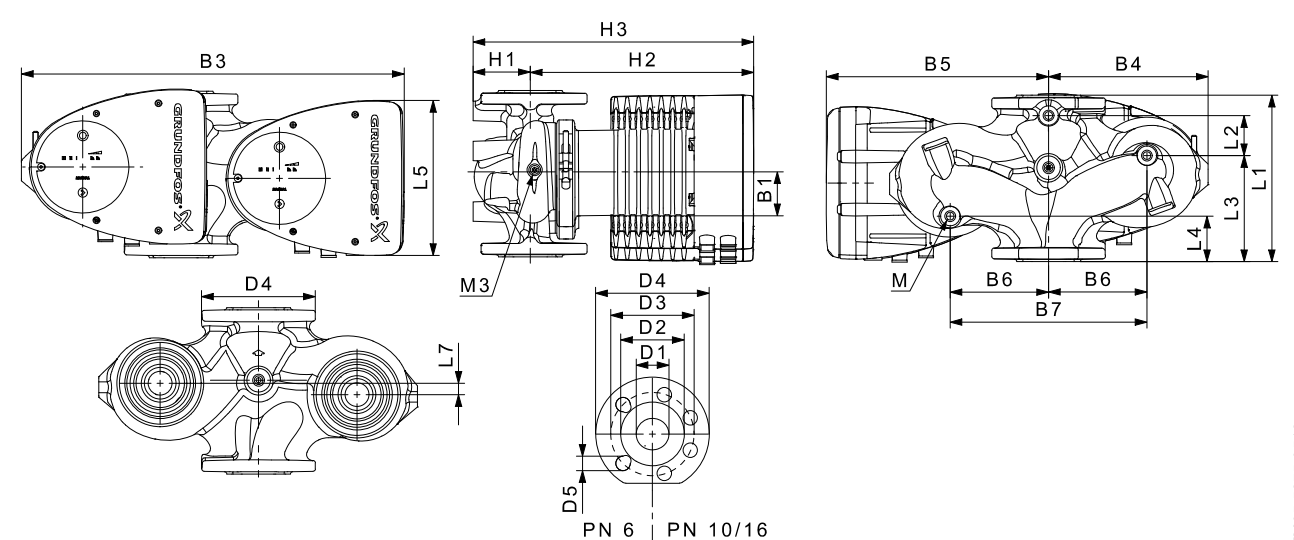


Speed	P1 [W]	I _{1/1} [A]
Min.	26	0.27
Max.	518	2.3

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
62.1	72.0	0.208



Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2		D3	D4	D5	M
MAGNA1 D 100-40 F	450	243	147	147	204	0	84	551	252	299	135	270	103	330	434	100	160	170	220	19	12	1/4

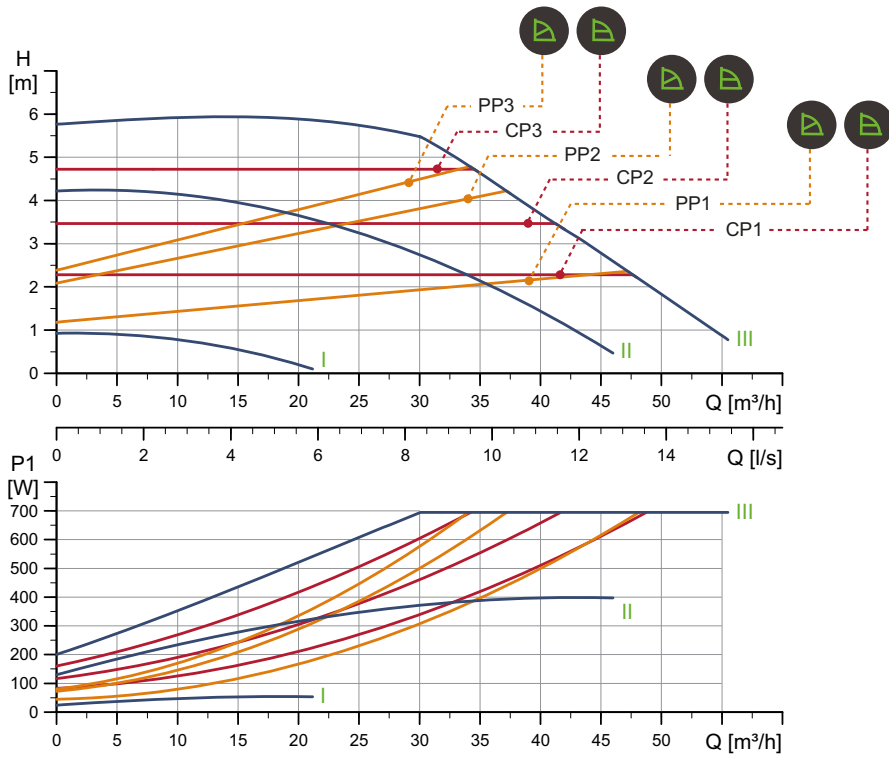
For product numbers, see page 114.

TM05 6358 4712

TM05 5275 3512

MAGNA1 100-60 F

1 x 230 V, 50/60 Hz

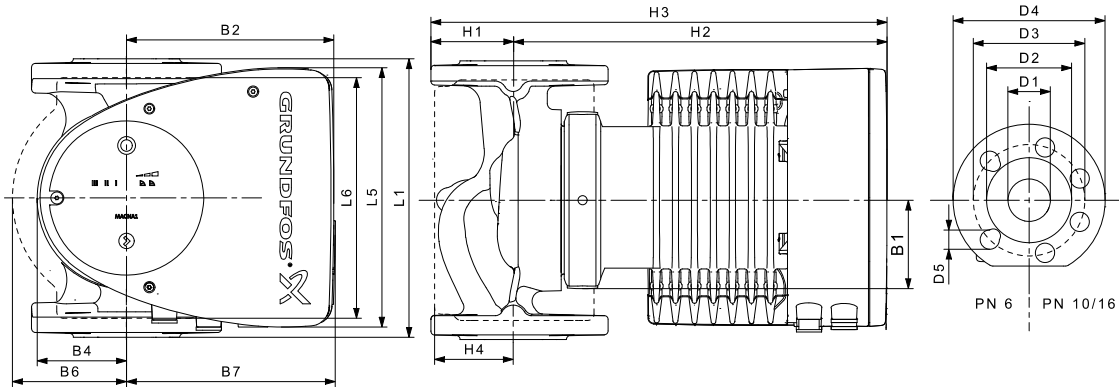


Speed	P1 [W]	I _{1/1} [A]
Min.	25.6	0.27
Max.	708	3.13

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
34.2	36.4	0.099



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 100-60 F	450	204	396	84	164	73	178	178	103	330	433	120	100	160	170	220	19

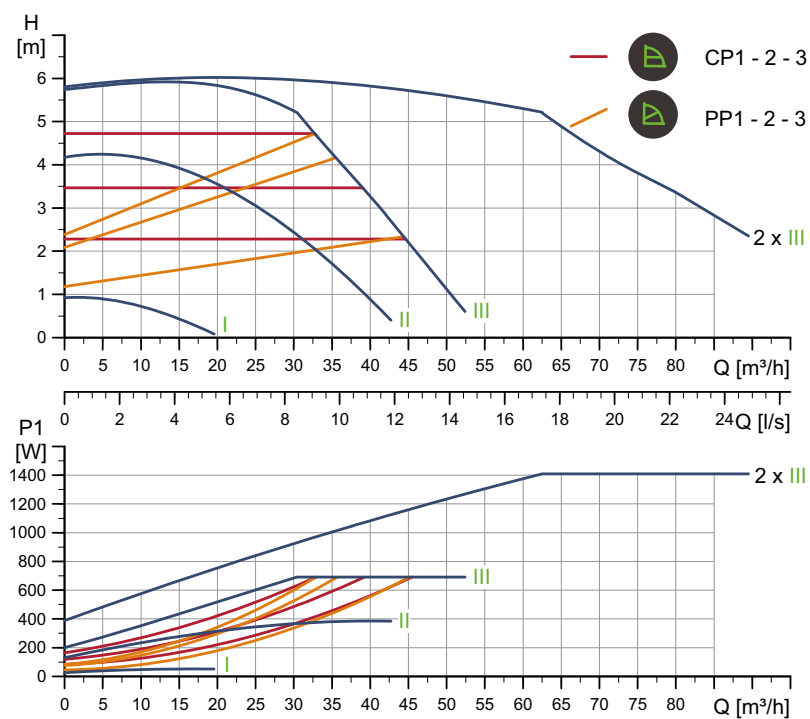
For product numbers, see page 114.

TM05 6312 4712

TM05 5276 3512

MAGNA1 D 100-60 F

1 x 230 V, 50/60 Hz

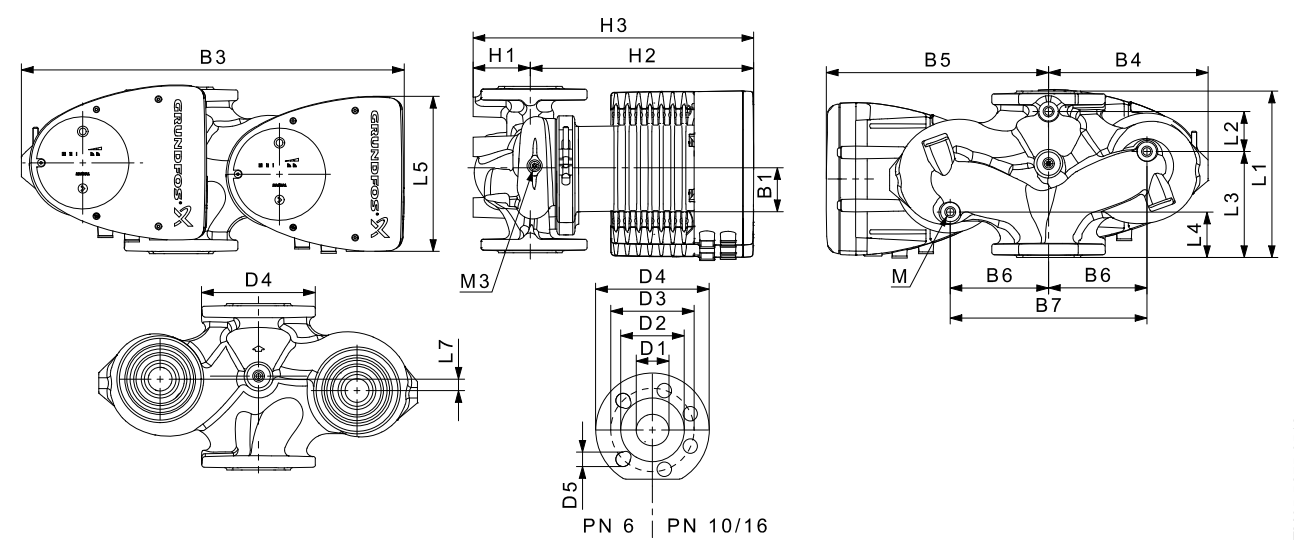


Speed	P1 [W]	I _{1/1} [A]
Min.	26.1	0.28
Max.	705	3.11

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
62.1	72.0	0.208



Pump type	Dimensions [mm]															Rp						
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M	M3
MAGNA1 D 100-60 F	450	243	147	147	204	0	84	551	252	299	135	270	103	330	434	100	160	170	220	19	12	1/4

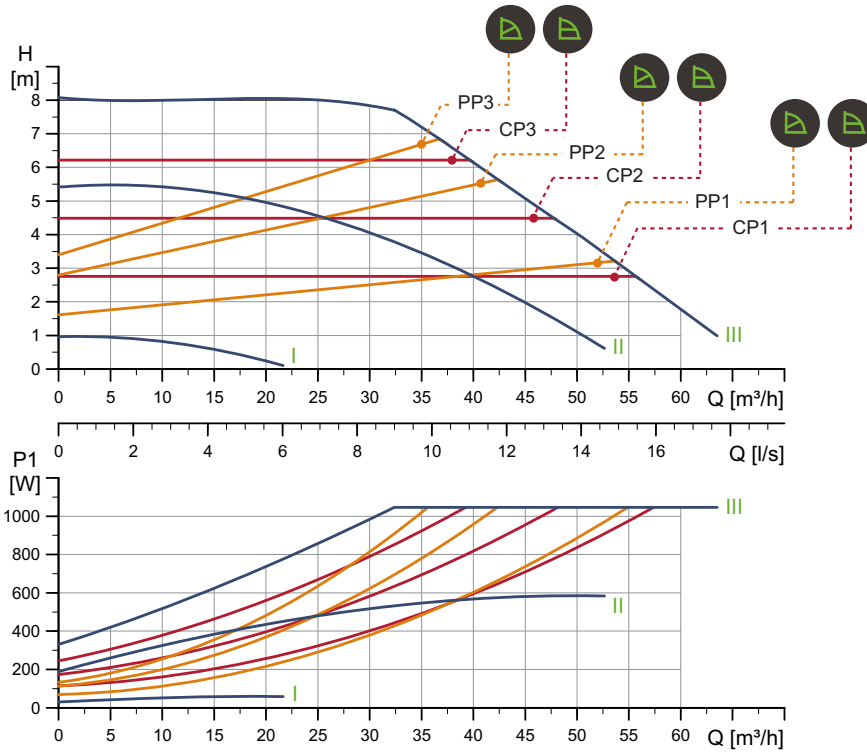
For product numbers, see page 114.

TM05 6359 4712

TM05 5275 3512

MAGNA1 100-80 F

1 x 230 V, 50/60 Hz

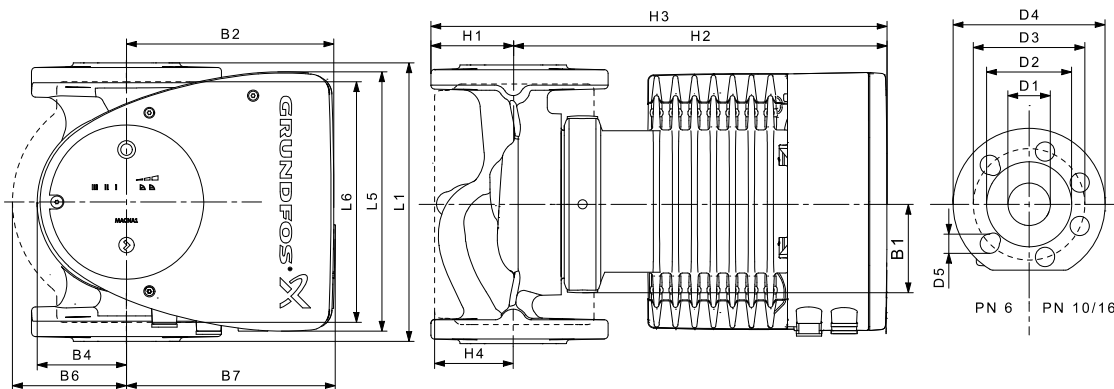


Speed	P1 [W]	I _{1/1} [A]
Min.	31.4	0.32
Max.	1067	4.71

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
34.8	37.0	0.099



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 100-80 F	450	204	396	84	164	73	178	178	103	330	433	120	100	160	170	220	19

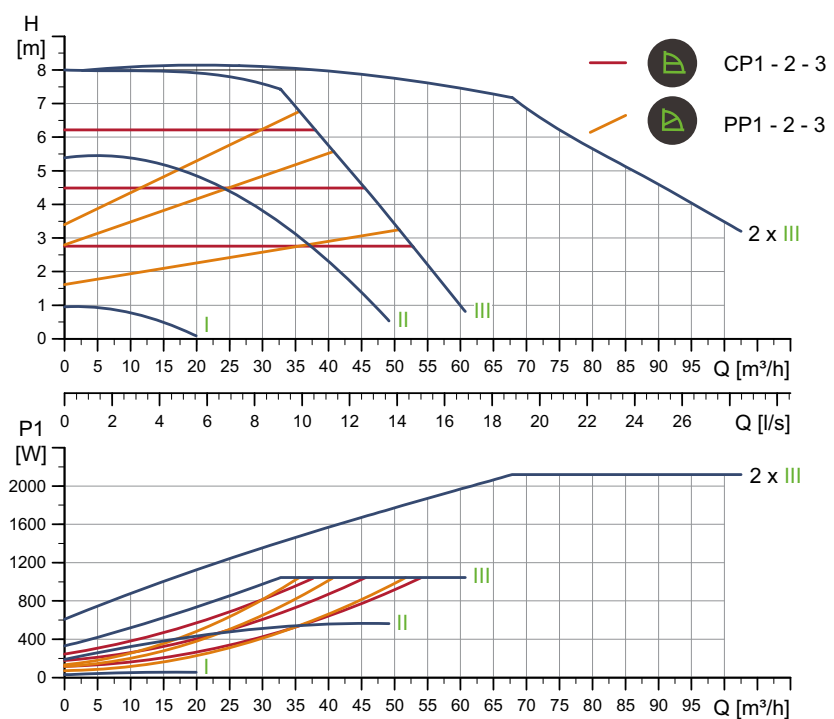
For product numbers, see page 114.

TM05 6313 4712

TM05 5276 3512

MAGNA1 D 100-80 F

1 x 230 V, 50/60 Hz

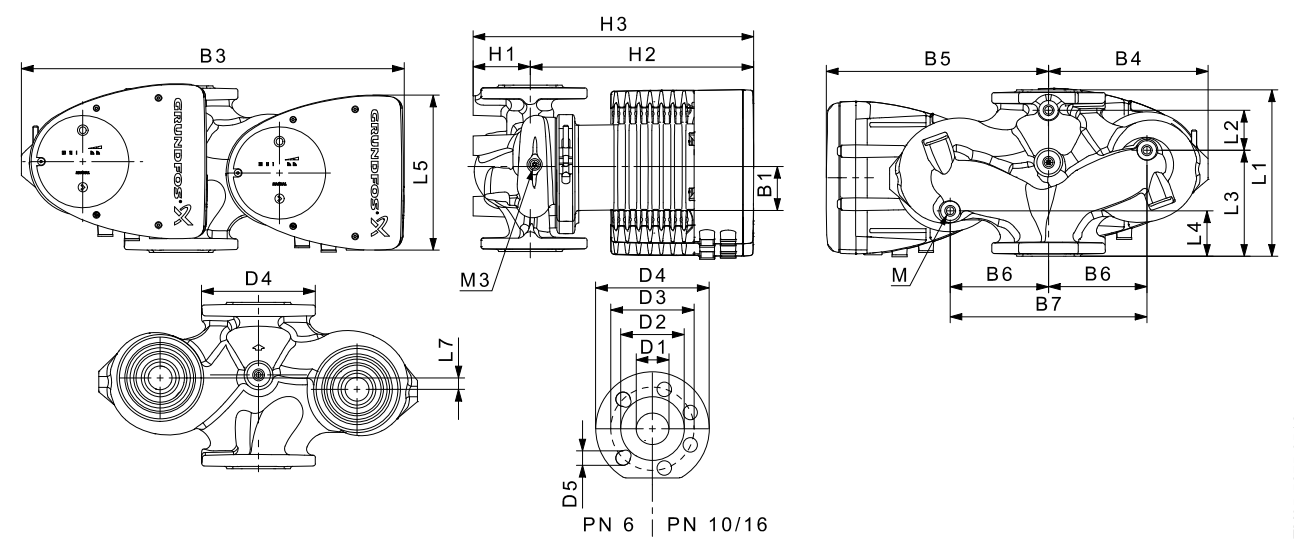


Speed	P1 [W]	I _{1/1} [A]
Min.	31.3	0.32
Max.	1066	4.70

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
62.3	72.2	0.208



Pump type	Dimensions [mm]																Rp					
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1		D2	D3	D4	D5	M
MAGNA1 D 100-80 F	450	243	147	147	204	0	84	551	252	299	135	270	103	330	434	100	160	170	220	19	12	1/4

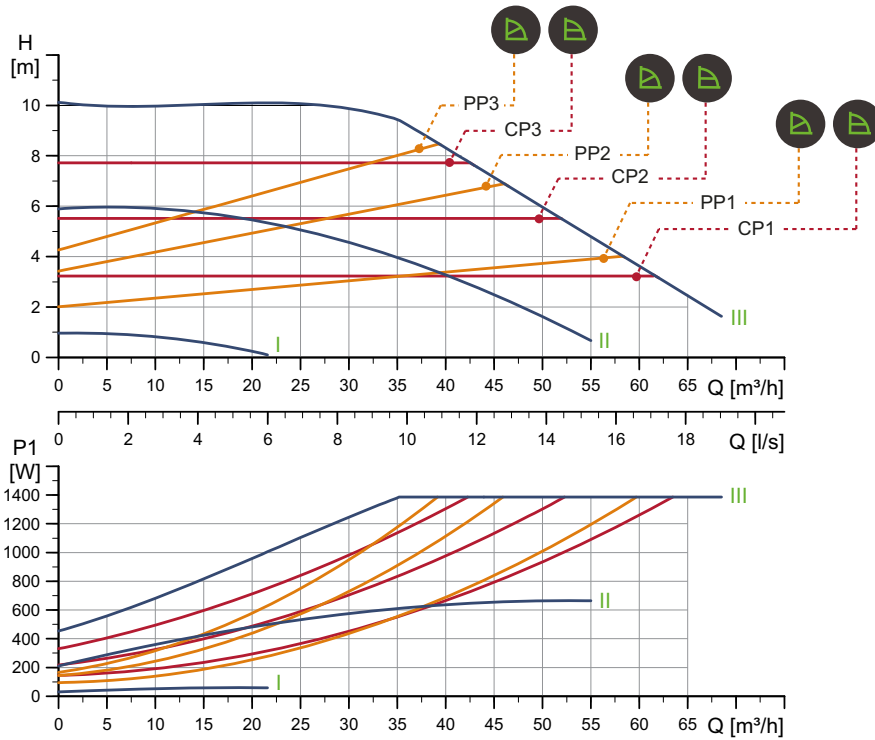
For product numbers, see page 114.

TM05 6360 4712

TM05 5275 3512

MAGNA1 100-100 F

1 x 230 V, 50/60 Hz

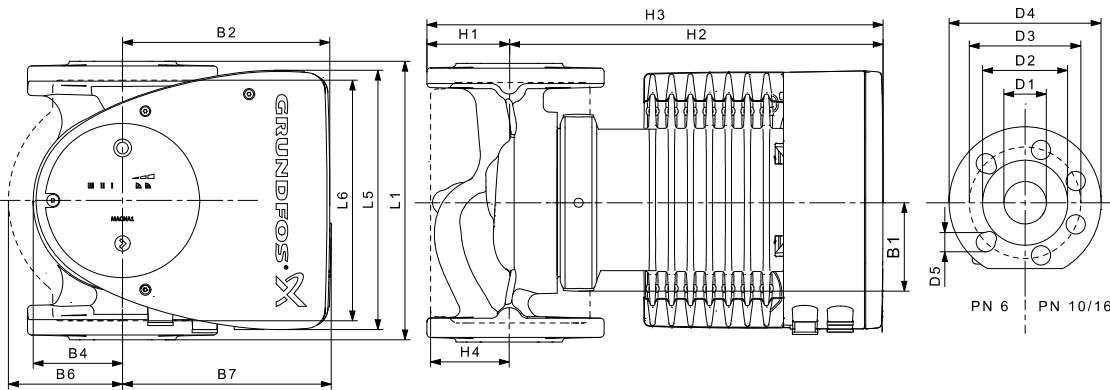


Speed	P1 [W]	I _{1/1} [A]
Min.	31.3	0.32
Max.	1413	6.23

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
34.8	37.0	0.099



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 100-100 F	450	204	396	84	164	73	178	178	103	330	433	120	100	160	170	220	19

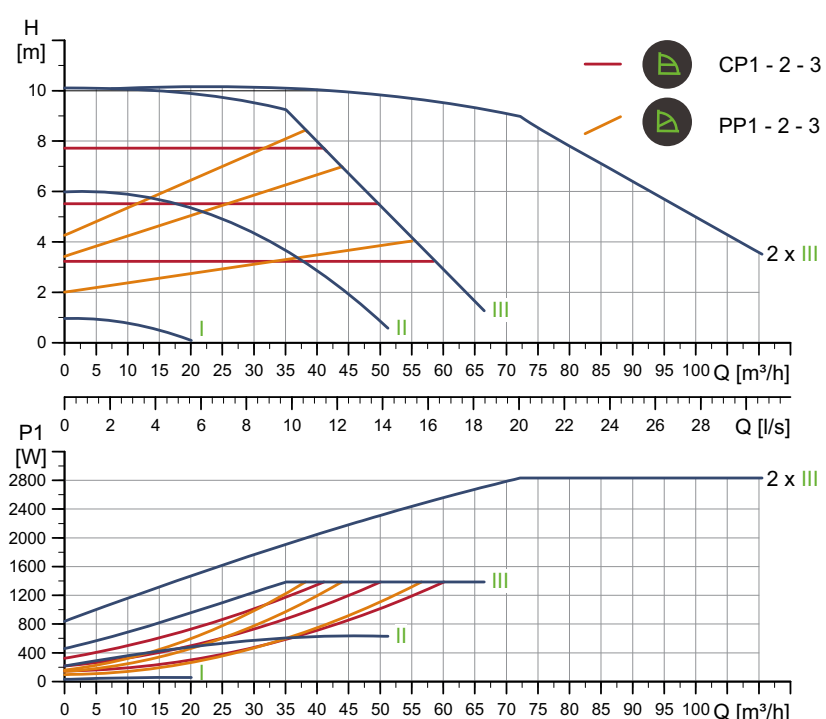
For product numbers, see page 114.

TM05 6314 4712

TM05 5276 3512

MAGNA1 D 100-100 F

1 x 230 V, 50/60 Hz

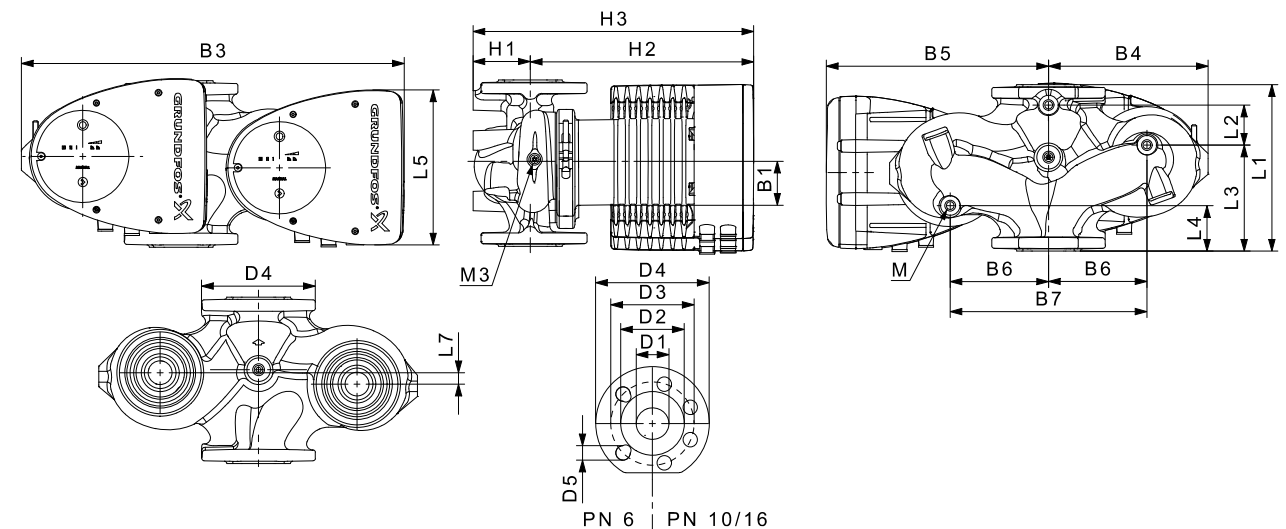


Speed	P1 [W]	I _{1/1} [A]
Min.	31.1	0.32
Max.	1413	6.23

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.19.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m ³]
62.3	72.2	0.208



Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2		D3	D4	D5	M
MAGNA1 D 100-100 F	450	243	147	147	204	0	84	551	252	299	135	270	103	330	434	100	160	170	220	19	12	1/4

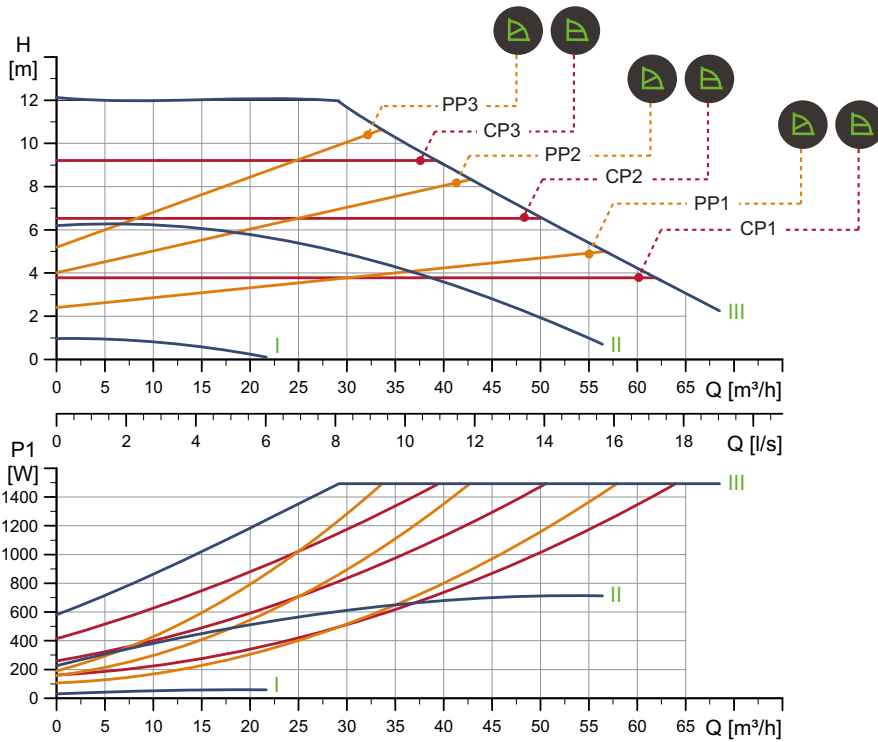
For product numbers, see page 114.

TM05 6361 4712

TM05 5275 3512

MAGNA1 100-120 F

1 x 230 V, 50/60 Hz

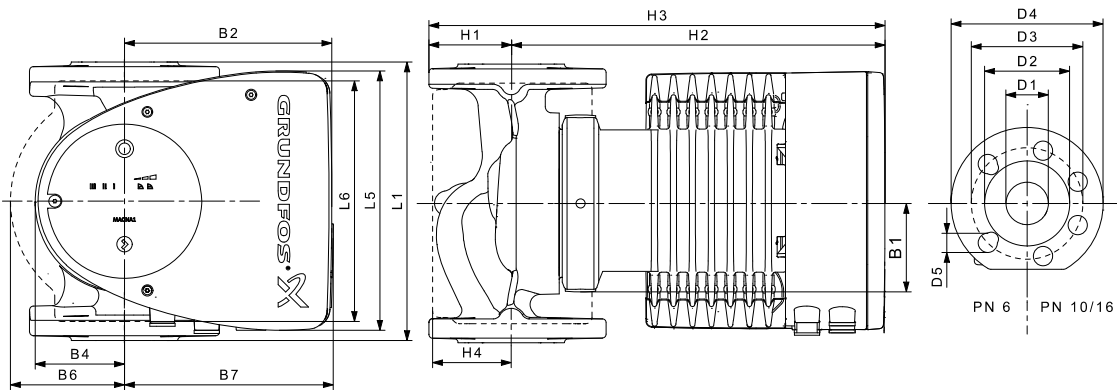


Speed	P1 [W]	I _{1/I1} [A]
Min.	31.1	0.32
Max.	1523	6.73

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.21.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
34.8	37.0	0.099



Pump type	Dimensions [mm]																
	L1	L5	L6	B1	B2	B4	B6	B7	H1	H2	H3	H4	D1	D2	D3	D4	D5
MAGNA1 100-120 F	450	204	396	84	164	73	178	178	103	330	433	120	100	160	170	220	19

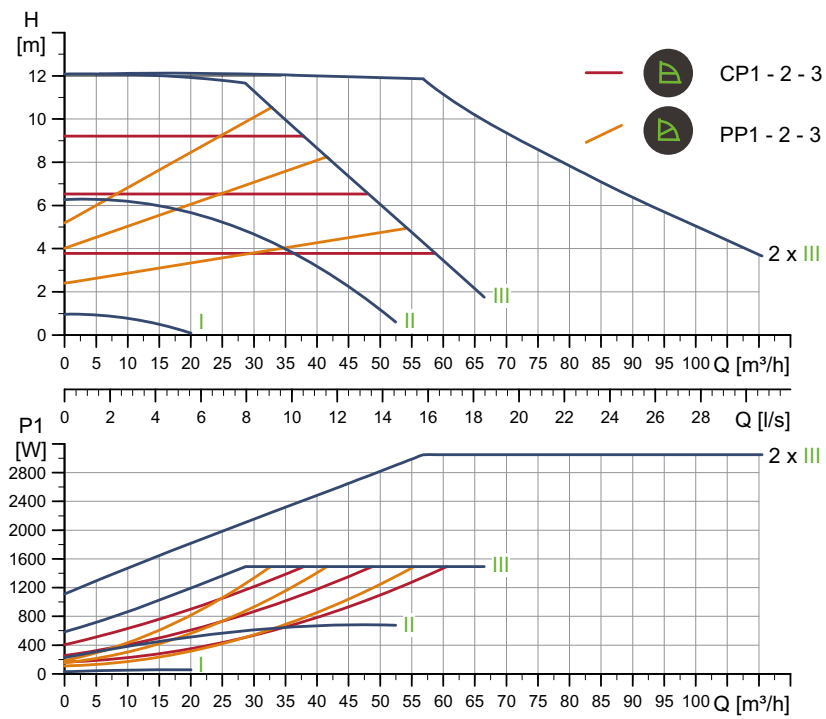
For product numbers, see page 114.

TM05 6315 4712

TM05 5276 3512

MAGNA1 D 100-120 F

1 x 230 V, 50/60 Hz



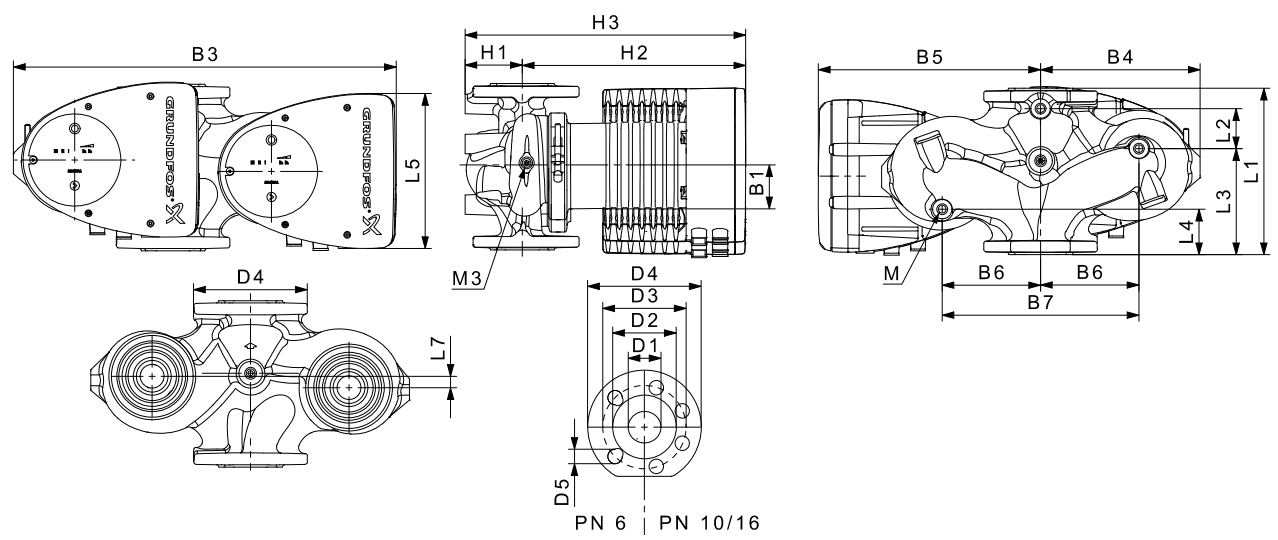
TM05 6362 4712

Speed	P1 [W]	I _{1/1} [A]
Min.	31.2	0.32
Max.	1521	6.71

Connections: See [Pipe connections](#), page 108.
 System pressure: Max. 1.0 MPa (10 bar).
 Liquid temperature: -10 - 110 °C (TF 110).
 Specific EEI: 0.22.

The pump incorporates overload protection.

Net weight [kg]	Gross weight [kg]	Ship. vol. [m³]
62.3	72.7	0.208



TM05 5275 3512

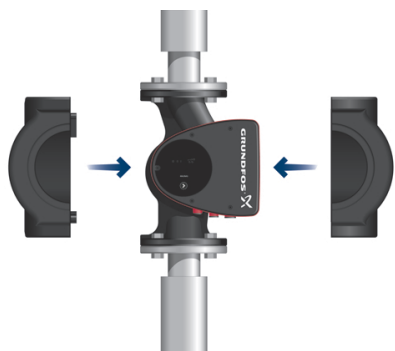
Pump type	Dimensions [mm]																	Rp				
	L1	L2	L3	L4	L5	L7	B1	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2		D3	D4	D5	M
MAGNA1 D 100-120 F	450	243	147	147	204	0	84	551	252	299	135	270	103	330	434	100	160	170	220	19	12	1/4

For product numbers, see page 114.

10. Accessories

Insulating kits for air-conditioning and cooling systems

You can fit single-head pumps for air-conditioning and cooling systems with insulating shells. A kit consists of two shells made of polyurethane and a self-adhesive seal to ensure tight assembly.



TM05 5529 3812

Fig. 22 Fitting the insulating shells to a MAGNA1 pump

Note: The dimensions of the insulating shells for air-conditioning and cooling systems differ from those of the insulating shells for heating systems. You can use the insulating shells for both stainless-steel and cast-iron pumps.

Pump type	Product number
MAGNA1 25-40/60/80/100/120 (N)	98538852
MAGNA1 32-40/60/80/100/120 (N)	98538853
MAGNA1 32-40/60/80/100 F (N)	98538854
MAGNA1 32-120 F (N)	98164595
MAGNA1 40-40/60 F (N)	98538855
MAGNA1 40-80/100 F (N)	98164597
MAGNA1 40-120/150/180 F (N)	98164598
MAGNA1 50-40/60/80 F (N)	98164599
MAGNA1 50-100/120/150/180 F (N)	98164600
MAGNA1 65-40/60/80/100/120/150 F (N)	98538839
MAGNA1 80-40/60/80/100/120 F	98538851
MAGNA1 100-40/60/80/100/120 F	98164611

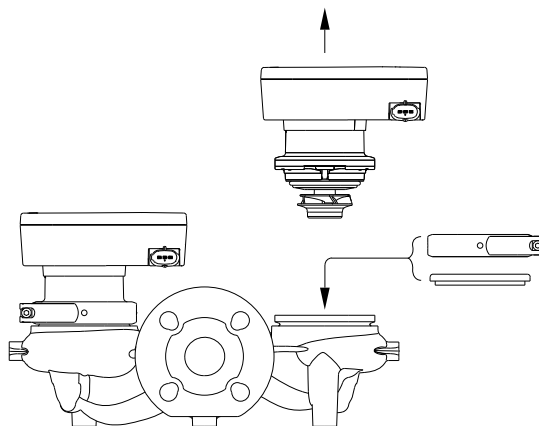
Note: Insulating shells for single-head pumps for heating systems are supplied with the pump. You can order the insulating shells as a service kit.

Specifications

- Specific volume resistance $\geq 10^{15}$ Ωcm DIN 60093
- thermal conductivity at 10 °C 0.036 W/mK and at 40 °C 0.039 W/mK DIN 52612
- density 33 ± 5 kg/m³ ISO 845
- working temperature range -40/+90 °C ISO 2796.

Blanking flanges

You can use a blanking flange to blank off the opening when you have removed one of the pumps of a twin-head pump for service to enable uninterrupted operation of the other pump.



TM05 5525 3812

Fig. 23 Position of blanking flange

Pump type	Product number
MAGNA1 D 25-40/60/80/100/120	
MAGNA1 D 32-40/60/80/100 (F)	98159373
MAGNA1 D 40-40/60 F	
MAGNA1 D 32-120 F	
MAGNA1 D 40-80/100/120/150/180 F	
MAGNA1 D 50-40/60/80/100/120/150/180 F	98159372
MAGNA1 D 65-40/60/80/100/120/150 F	
MAGNA1 D 80-40/60/80/100/120 F	
MAGNA1 D 100-40/60/80/100/120 F	

ALPHA plug accessories



TM05 3073 0612

Fig. 24 ALPHA plugs

Pipe connections

Pos.	Description	Product number
1	ALPHA plug, standard plug connection	98284561
2	ALPHA angle plug, standard angle plug connection	98610291
3	ALPHA plug, 90 ° bend, including 4 m cable	96884669

Thread-thread adapters

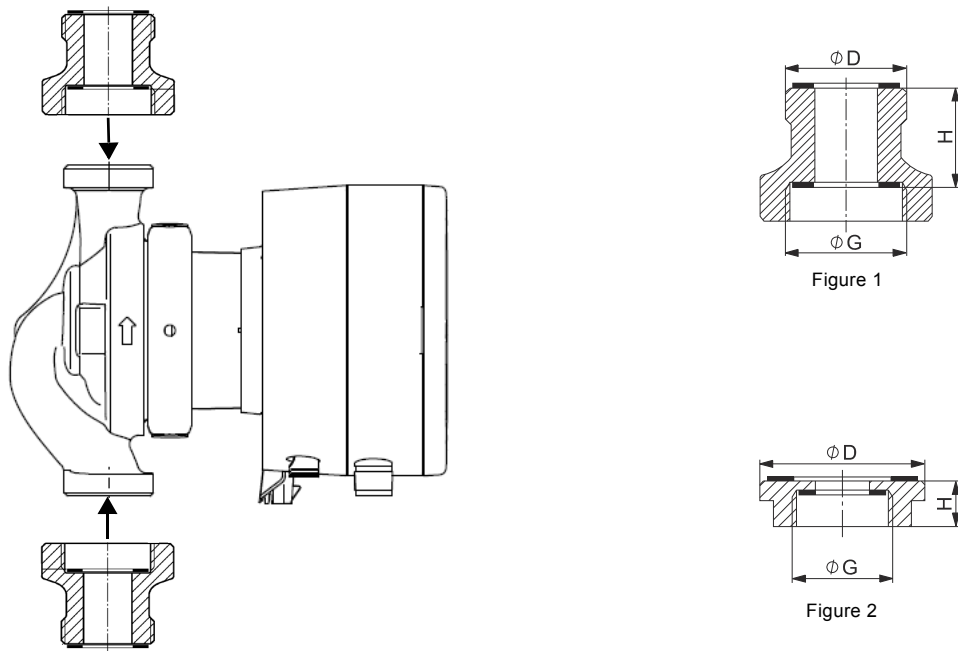
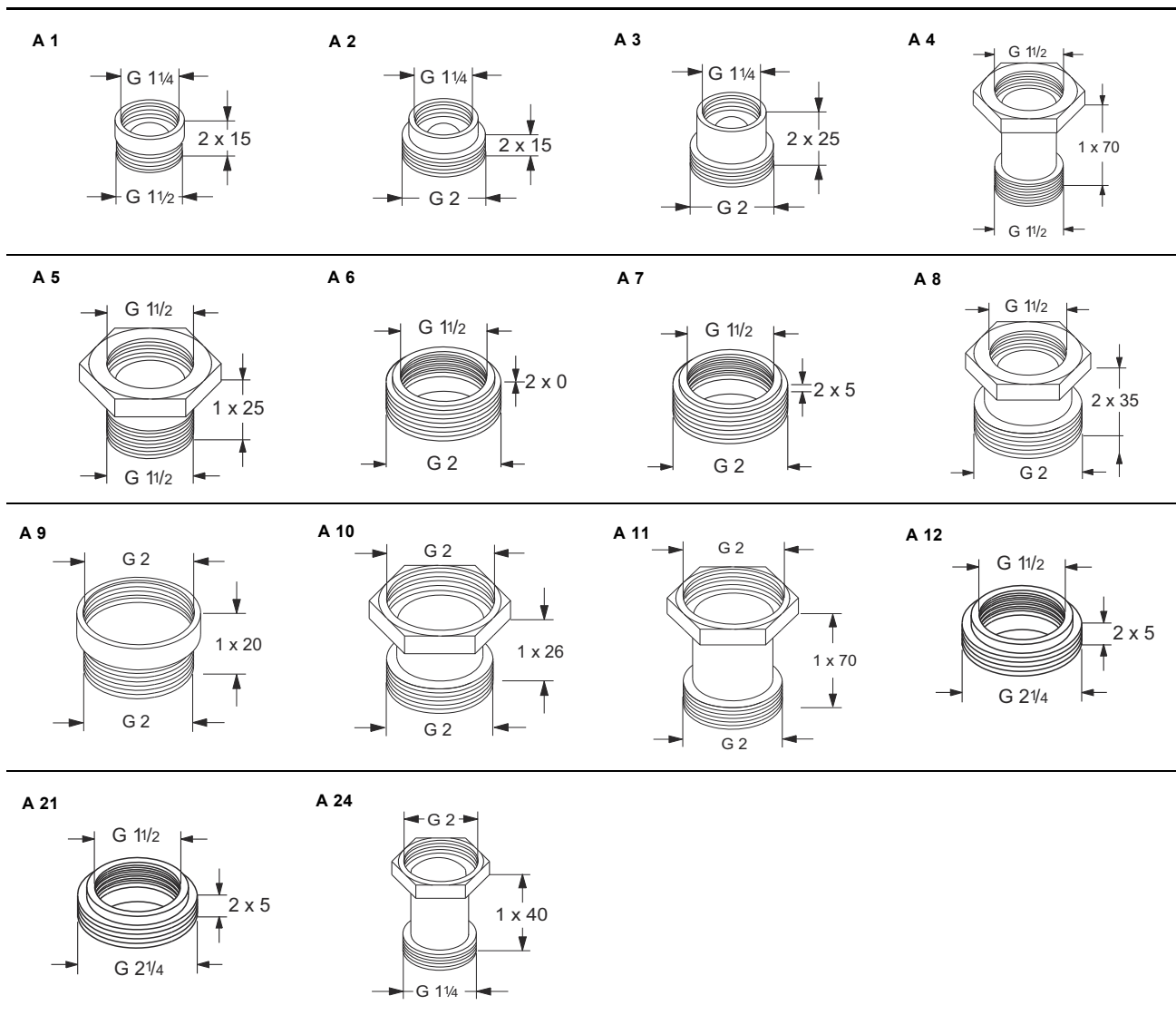


Fig. 25 Example of thread-thread adapters

New pump Connection G	Union nut Connection D	Adapter length H [mm]	Adapter type	Figure	Material	Product number PN 10
G 1 1/4	G 1 1/4	1 x 40	A 24 G	1	Brass (Ms)	96436559
	G 1 1/4	2 x 15	A 1	1	Bronze (Rg)	535040
	G 2	2 x 15	A 2	1	Bronze (Rg)	535041
	G 2	2 x 25	A 3	1	Bronze (Rg)	535042
G 1 1/2	G 1 1/2	1 x 70	A 4	1	Cast iron (GG)	535043
	G 1 1/2	1 x 25	A 5	1	Cast iron (GG)	535044
	G 2	2 x 0	A 6	2	Brass (Ms)	535045
	G 2	2 x 5	A 7	2	Bronze (Rg)	535046
	G 2	2 x 35	A 8	1	Cast iron (GG)	535047
G 2	G 2 1/4	2 x 5	A 21	2	Brass (Ms)	535114
	G 2	1 x 20	A 9	1	Bronze (Rg)	535048
	G 2	1 x 26	A 10	1	Cast iron (GG)	535049
	G 2	1 x 70	A 11	1	Cast iron (GG)	535050

TM05 8617 - TM05 8618

Thread types



G-threads have a cylindrical form in accordance with the EN-ISO 228-1 standard. R-threads have a conical form in accordance with the ISO 7-1 standard. In the case of a thread of size 1 1/2", the threads are specified as G 1 1/2 or R 1 1/2. You can only screw male G-threads (cylindrical) into female G-threads. You can screw male R-threads (conical) into female G- or R-threads. See fig. 26.

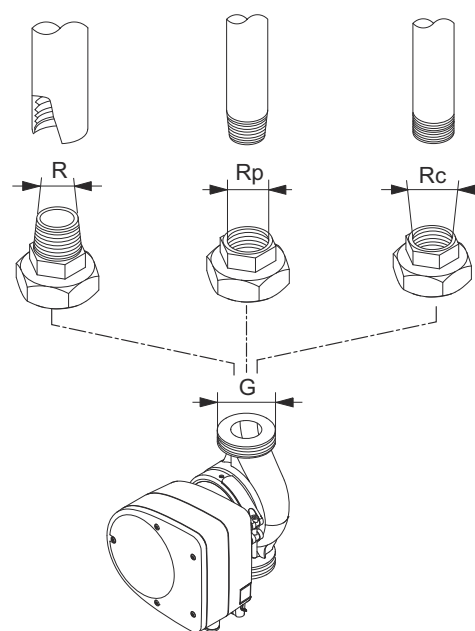
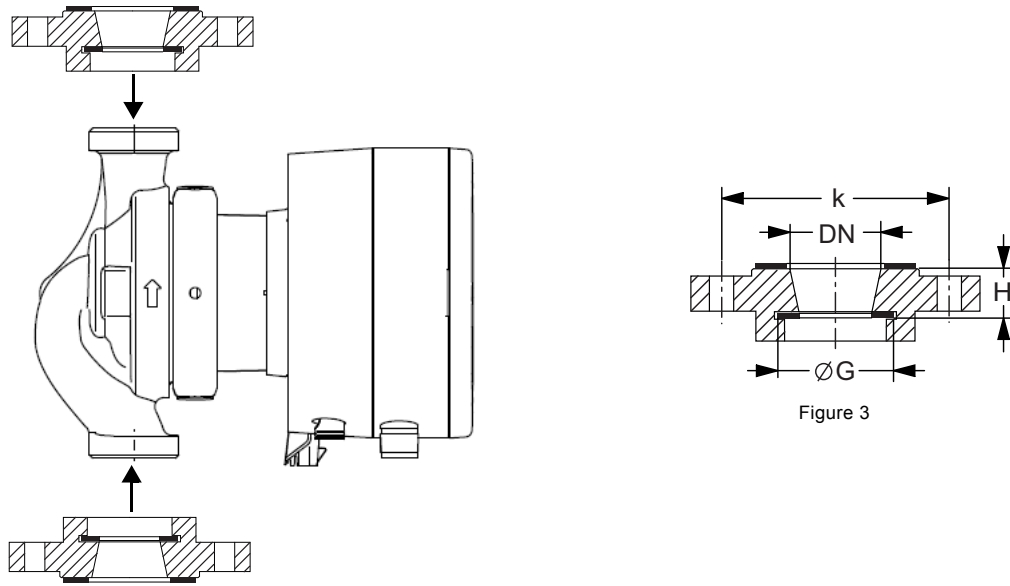


Fig. 26 G-thread and R-thread

TM060438 0214

Thread-flange adapters

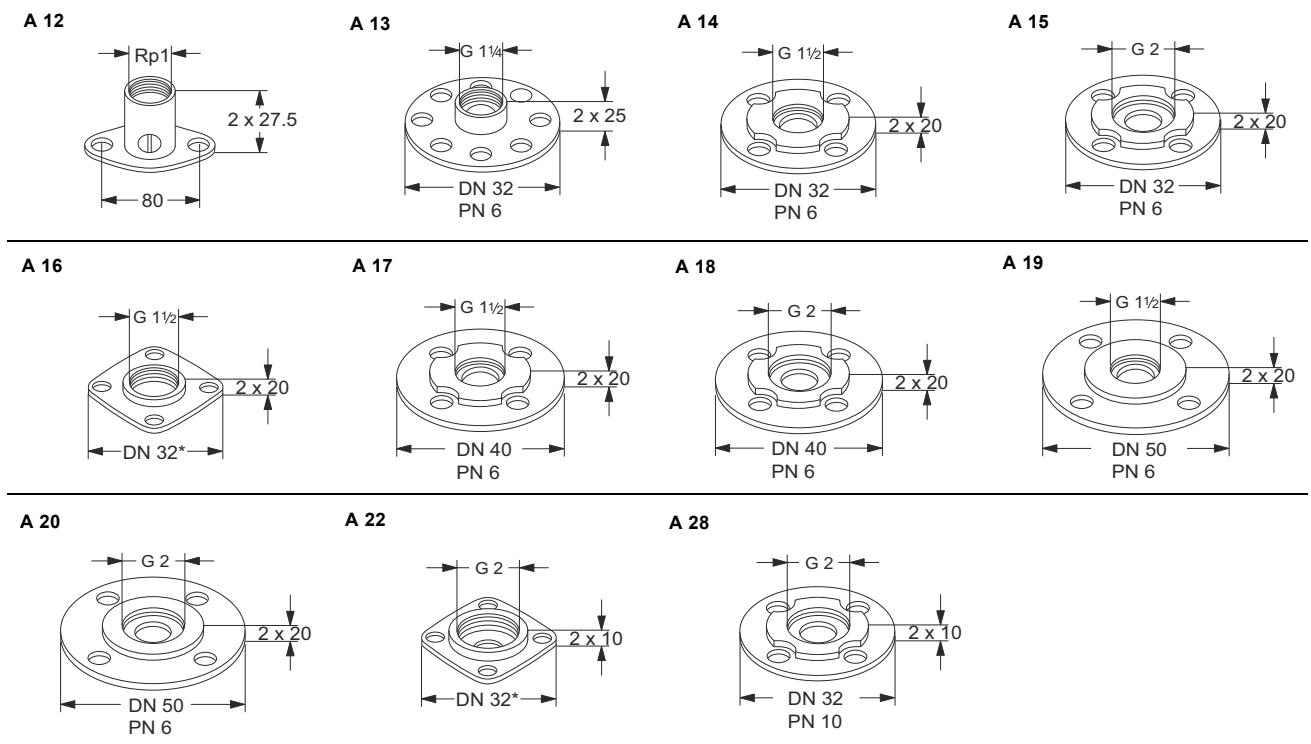


TMO6 0450

Fig. 27 Example of thread-flange adapters

New pump connection	Flange connection	Adapter length H [mm]	k [mm]	Adapter type	Figure	Material	Product number PN 6	Product number PN 10
G 1 1/4	DN 32	2 x 25	90	A 13	3	Bronze (Rg)	535052	
	DN 32*	2 x 0	90	A 16	3	Cast iron (GG)	535055	
G 1 1/2	DN 32	2 x 20	90	A 14	3	Cast iron (GG)	535053	
	DN 40	2 x 20	100	A 17	3	Cast iron (GG)	535056	
	DN 50	1 x 20	110	A 19	3	Cast iron (GG)	535058	
G 2	DN 32*	1 x 10	90	A 22	3	Cast iron (GG)	535115	
	DN 32	2 x 10	100	A 28	3	Cast iron (GG)		96580074
	DN 32	2 x 20	90	A 15	3	Cast iron (GG)	535054	
	DN 40	2 x 20	100	A 18	3	Cast iron (GG)	98614387	
	DN 50	2 x 20	110	A 20	3	Cast iron (GG)	98614411	
Oval flange	Rp 1	1 x 27.5	80	A 12	3	Brass (Ms)		535051

* Grundfos square flange



Flange-flange adapters

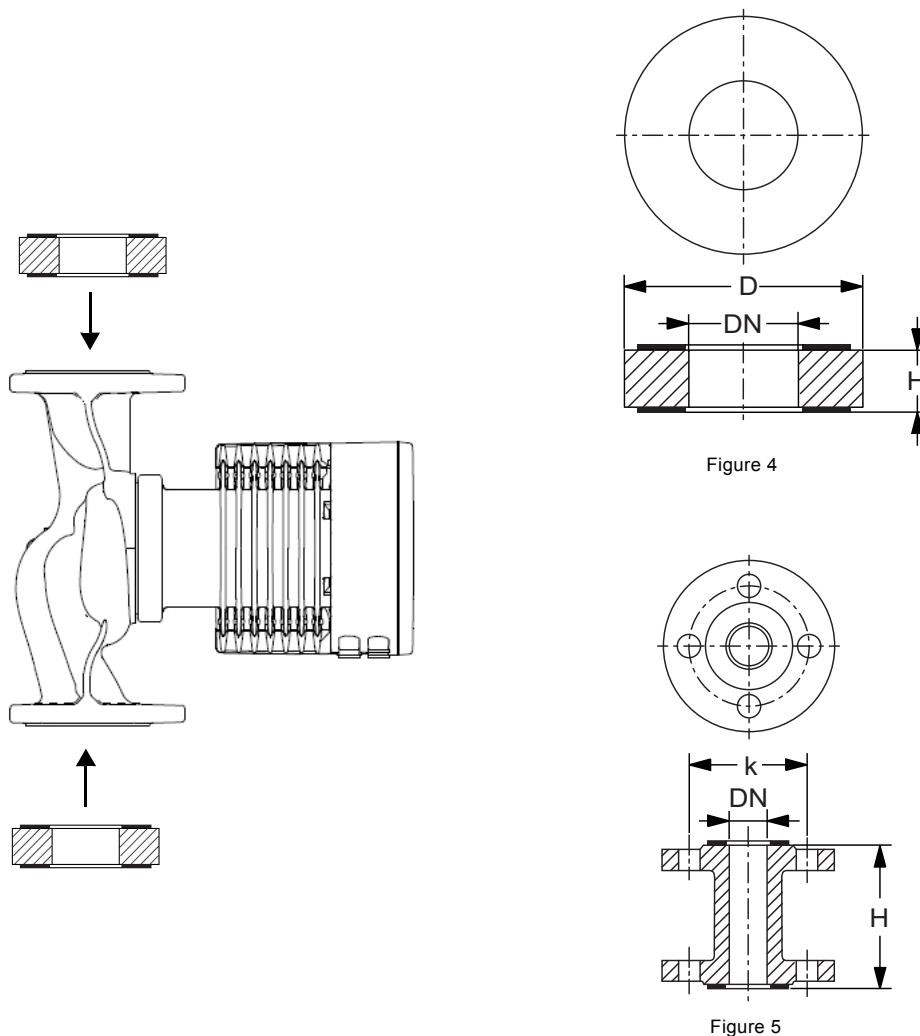
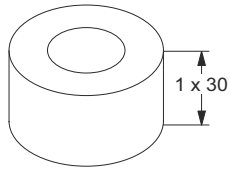


Fig. 28 Example of flange-flange adapter

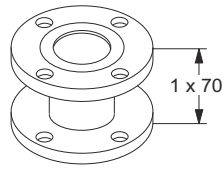
New pump connection	Adapter length H [mm]	k [mm] PN 6	k [mm] PN 10	D [mm] PN 6	D [mm] PN 10	Adapter type	Figure	Material	Product number PN 6	Product number PN 10
DN 40	1 x 70	100	110			A 40-70	5	Cast iron (GG)	539921	539721
	1 x 30			82	88	A 40-30	4	Steel (St)	96281076	96608515
	1 x 10			90	102	A 50-10	4	Cast iron (GG)	549921	549821
DN 50	1 x 20			90	102	A 50-20	4	Cast iron (GG)	549922	549822
	1 x 40			90	102	A 50-40	4	Steel (St)	96281077	96608516
	1 x 50			90	102	A 50-50	4	Cast iron (GG)	549923	549823
	1 x 60	110	125			A 50-60	5	Cast iron (GG)	549924	549824
DN 65	1 x 10			110	122	A 65-10	4	Cast iron (GG)	559921	559821
	1 x 25			110	122	A 65-25	4	Cast iron (GG)	559922	559822
	1 x 160	130	145			A 65-160	5	Steel (St)	559923	559823
DN 80	1 x 10			127	138	A 80-10	4	Cast iron (GG)	569921	569821
	1 x 15			127	138	A 80-15	4	Cast iron (GG)	569922	569822
	1 x 20			127	138	A 80-20	4	Cast iron (GG)	569923	569823
	1 x 25			127	138	A 80-25	4	Cast iron (GG)	569924	569824
	1 x 40			127	138	A 80-40	4	Cast iron (GG)	569925	569825
	1 x 50			127	138	A 80-50	4	Cast iron (GG)	569926	569826
DN 100	1 x 140	150	165			A 80-140	5	Steel (St)	569927	569827
	2 x 25				106	A 100-50	4	Steel (St)		98545610

TM06 0449 - TM06 0451

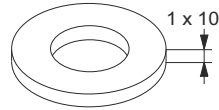
A 40-30



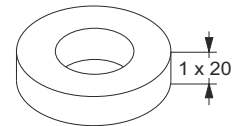
A 40-70



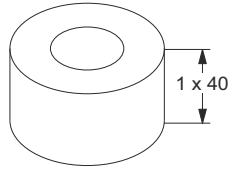
A 50-10



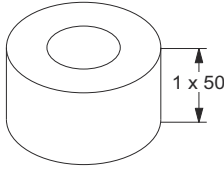
A 50-20



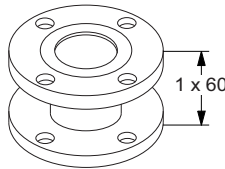
A 50-40



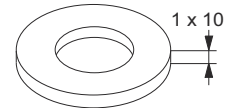
A 50-50



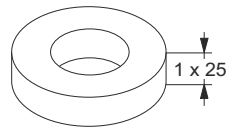
A 50-60



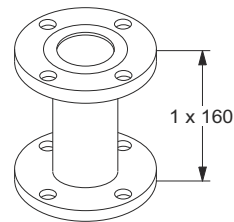
A 65-10



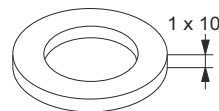
A 65-25



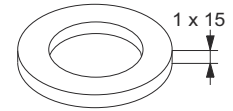
A 65-160



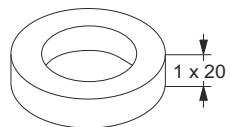
A 80-10



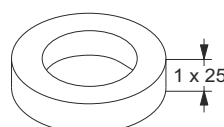
A 80-15



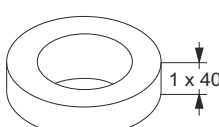
A 80-20



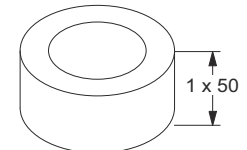
A 80-25



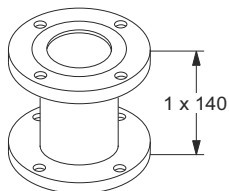
A 80-40



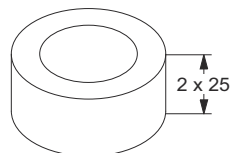
A 80-50



A 80-140



A 100-50



11. Product numbers

MAGNA1 for the international market

Single-head pumps

Pump type	Port-to-port length [mm]	Threaded pipe connection		Data sheet, page	
		Cast iron			Stainless steel
		PN 10			PN 10
MAGNA1 25-40 (N)	180	97924153	98254905	24	
MAGNA1 25-60 (N)	180	97924154	98254906	25	
MAGNA1 25-80 (N)	180	97924144	98254907	26	
MAGNA1 25-100 (N)	180	97924145	98254908	27	
MAGNA1 25-120 (N)	180	97924146	98254909	28	
MAGNA1 32-40 (N)	180	97924162	98254910	29	
MAGNA1 32-60 (N)	180	97924163	98254911	31	
MAGNA1 32-80 (N)	180	97924164	98254912	33	
MAGNA1 32-100 (N)	180	97924165	98254913	35	
MAGNA1 32-120 (N)	180	98609713	98609717	37	

Pump type	Port-to-port length [mm]	Flange connection				Data sheet, page
		Cast iron		Stainless steel		
		PN 6	PN 10	PN 6/10	PN 10	
MAGNA1 32-40 F (N)	220			98333824	98333826	38
MAGNA1 32-60 F (N)	220			98333844	98333846	40
MAGNA1 32-80 F (N)	220			98333864	98333866	42
MAGNA1 32-100 F (N)	220			97924166	98254914	44
MAGNA1 32-120 F (N)	220			97924167	98254915	46
MAGNA1 40-40 F (N)	220			97924174	98254916	48
MAGNA1 40-60 F (N)	220			97924175	98254917	50
MAGNA1 40-80 F (N)	220			97924176	98254918	52
MAGNA1 40-100 F (N)	220			97924177	98254919	54
MAGNA1 40-120 F (N)	250			97924178	98254920	56
MAGNA1 40-150 F (N)	250			97924179	98254921	58
MAGNA1 40-180 F (N)	250			97924180	98254922	60
MAGNA1 50-40 F (N)	240			97924188	98254923	62
MAGNA1 50-60 F (N)	240			97924189	98254924	64
MAGNA1 50-80 F (N)	240			97924190	98254925	66
MAGNA1 50-100 F (N)	280			97924191	98254926	68
MAGNA1 50-120 F (N)	280			97924192	98254927	70
MAGNA1 50-150 F (N)	280			97924193	98254928	72
MAGNA1 50-180 F (N)	280			97924194	98254929	74
MAGNA1 65-40 F (N)	340			97924202	98254930	76
MAGNA1 65-60 F (N)	340			97924203	98254931	78
MAGNA1 65-80 F (N)	340			97924204	98254932	80
MAGNA1 65-100 F (N)	340			97924205	98254933	82
MAGNA1 65-120 F (N)	340			97924206	98254934	84
MAGNA1 65-150 F (N)	340			97924207	98254935	86
MAGNA1 80-40 F	360	97924214	97924224			88
MAGNA1 80-60 F	360	97924215	97924225			90
MAGNA1 80-80 F	360	97924216	97924226			92
MAGNA1 80-100 F	360	97924217	97924227			94
MAGNA1 80-120 F	360	97924218	97924228			96
MAGNA1 100-40 F	450	97924219	97924229			98
MAGNA1 100-60 F	450	97924220	97924230			100
MAGNA1 100-80 F	450	97924221	97924231			102
MAGNA1 100-100 F	450	97924222	97924232			104
MAGNA1 100-120 F	450	97924223	97924233			106

Note: Click on the product number and go directly to the performance curve in Grundfos Product Center.

Twin-head pumps

Pump type	Port-to-port length [mm]	Threaded pipe connection		Data sheet, page
		Cast iron		
		PN 10		
MAGNA1 D 32-40	180	97924367		30
MAGNA1 D 32-60	180	97924368		32
MAGNA1 D 32-80	180	97924369		34
MAGNA1 D 32-100	180	97924370		36

Pump type	Port-to-port length [mm]	Flange connection			Data sheet, page
		Cast iron			
		PN 6	PN 10	PN 6/10	
MAGNA1 D 32-40 F	220			98333830	39
MAGNA1 D 32-60 F	220			98333850	41
MAGNA1 D 32-80 F	220			98333870	43
MAGNA1 D 32-100 F	220			97924371	45
MAGNA1 D 32-120 F	220			97924372	47
MAGNA1 D 40-40 F	220			97924379	49
MAGNA1 D 40-60 F	220			97924380	51
MAGNA1 D 40-80 F	220			97924381	53
MAGNA1 D 40-100 F	220			97924382	55
MAGNA1 D 40-120 F	250			97924383	57
MAGNA1 D 40-150 F	250			97924384	59
MAGNA1 D 40-180 F	250			97924385	61
MAGNA1 D 50-40 F	240			97924393	63
MAGNA1 D 50-60 F	240			97924394	65
MAGNA1 D 50-80 F	240			97924395	67
MAGNA1 D 50-100 F	280			97924396	69
MAGNA1 D 50-120 F	280			97924397	71
MAGNA1 D 50-150 F	280			97924398	73
MAGNA1 D 50-180 F	280			97924399	75
MAGNA1 D 65-40 F	340			97924407	77
MAGNA1 D 65-60 F	340			97924408	79
MAGNA1 D 65-80 F	340			97924409	81
MAGNA1 D 65-100 F	340			97924410	83
MAGNA1 D 65-120 F	340			97924411	85
MAGNA1 D 65-150 F	340			97924412	87
MAGNA1 D 80-40 F	360	97924419		97924429	89
MAGNA1 D 80-60 F	360	97924420		97924430	91
MAGNA1 D 80-80 F	360	97924421		97924431	93
MAGNA1 D 80-100 F	360	97924422		97924432	95
MAGNA1 D 80-120 F	360	97924423		97924433	97
MAGNA1 D 100-40 F	450	97924424		97924434	99
MAGNA1 D 100-60 F	450	97924425		97924435	101
MAGNA1 D 100-80 F	450	97924426		97924436	103
MAGNA1 D 100-100 F	450	97924427		97924437	105
MAGNA1 D 100-120 F	450	97924428		97924438	107

Note: Click on the product number and go directly to the performance curve in Grundfos Product Center.

MAGNA1 for the German market

Single-head pumps

Pump type	Port-to-port length [mm]	Threaded pipe connection		Data sheet, page
		Cast iron	Stainless steel	
		PN 10	PN 10	
MAGNA1 25-40 (N)	180	97924531	98254936	24
MAGNA1 25-60 (N)	180	97924532	98254937	25
MAGNA1 25-80 (N)	180	97924533	98254938	26
MAGNA1 25-100 (N)	180	97924534	98254939	27
MAGNA1 25-120 (N)	180	97924535	98254940	28
MAGNA1 32-40 (N)	180	97924541	98254941	29
MAGNA1 32-60 (N)	180	97924542	98254942	31
MAGNA1 32-80 (N)	180	97924543	98254943	33
MAGNA1 32-100 (N)	180	97924544	98254944	35
MAGNA1 32-120 (N)	180	98609714	98609718	37

Pump type	Port-to-port length [mm]	Flange connection				Data sheet, page
		Cast iron		Stainless steel		
		PN 6	PN 10	PN 6/10	PN 10	
MAGNA1 32-40 F (N)	220			98333825	98333827	37
MAGNA1 32-60 F (N)	220			98333845	98333847	40
MAGNA1 32-80 F (N)	220			98333865	98333867	42
MAGNA1 32-100 F (N)	220			97924545	98254945	44
MAGNA1 32-120 F (N)	220			97924546	98254946	46
MAGNA1 40-40 F (N)	220			97924553	98254947	48
MAGNA1 40-60 F (N)	220			97924554	98254948	50
MAGNA1 40-80 F (N)	220			97924555	98254949	52
MAGNA1 40-100 F (N)	220			97924556	98254950	54
MAGNA1 40-120 F (N)	250			97924557	98254951	56
MAGNA1 40-150 F (N)	250			97924558	98254952	58
MAGNA1 40-180 F (N)	250			97924559	98254953	60
MAGNA1 50-40 F (N)	240			97924567	98254954	62
MAGNA1 50-60 F (N)	240			97924568	98254955	64
MAGNA1 50-80 F (N)	240			97924569	98254956	66
MAGNA1 50-100 F (N)	280			97924570	98254957	68
MAGNA1 50-120 F (N)	280			97924571	98254958	70
MAGNA1 50-150 F (N)	280			97924572	98254959	72
MAGNA1 50-180 F (N)	280			97924573	98254960	74
MAGNA1 65-40 F (N)	340			97924581	98254961	76
MAGNA1 65-60 F (N)	340			97924582	98254962	78
MAGNA1 65-80 F (N)	340			97924583	98254963	80
MAGNA1 65-100 F (N)	340			97924584	98254964	82
MAGNA1 65-120 F (N)	340			97924585	98254965	84
MAGNA1 65-150 F (N)	340			97924586	98254966	86
MAGNA1 80-40 F	360	97924593	97924603			88
MAGNA1 80-60 F	360	97924594	97924604			90
MAGNA1 80-80 F	360	97924595	97924605			92
MAGNA1 80-100 F	360	97924596	97924606			94
MAGNA1 80-120 F	360	97924597	97924607			96
MAGNA1 100-40 F	450	97924598	97924608			98
MAGNA1 100-60 F	450	97924599	97924609			100
MAGNA1 100-80 F	450	97924600	97924610			102
MAGNA1 100-100 F	450	97924601	97924611			104
MAGNA1 100-120 F	450	97924602	97924612			106

Note: Click on the product number and go directly to the performance curve in Grundfos Product Center.

Twin-head pumps

Pump type	Port-to-port length [mm]	Threaded pipe connection		Data sheet, page
		Cast iron		
		PN 10		
MAGNA1 D 32-40	180	97924747		30
MAGNA1 D 32-60	180	97924748		32
MAGNA1 D 32-80	180	97924749		34
MAGNA1 D 32-100	180	97924750		36

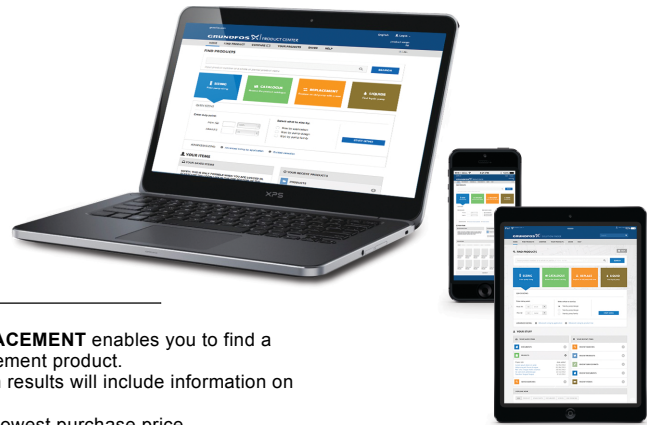
Pump type	Port-to-port length [mm]	Flange connection			Data sheet, page
		Cast iron			
		PN 6	PN 10	PN 6/10	
MAGNA1 D 32-40 F	220			98333831	39
MAGNA1 D 32-60 F	220			98333851	41
MAGNA1 D 32-80 F	220			98333871	43
MAGNA1 D 32-100 F	220			97924751	45
MAGNA1 D 32-120 F	220			97924752	47
MAGNA1 D 40-40 F	220			97924759	49
MAGNA1 D 40-60 F	220			97924760	51
MAGNA1 D 40-80 F	220			97924761	53
MAGNA1 D 40-100 F	220			97924762	55
MAGNA1 D 40-120 F	250			97924763	57
MAGNA1 D 40-150 F	250			97924764	59
MAGNA1 D 40-180 F	250			97924765	61
MAGNA1 D 50-40 F	240			97924773	63
MAGNA1 D 50-60 F	240			97924774	65
MAGNA1 D 50-80 F	240			97924775	67
MAGNA1 D 50-100 F	280			97924776	69
MAGNA1 D 50-120 F	280			97924777	71
MAGNA1 D 50-150 F	280			97924778	73
MAGNA1 D 50-180 F	280			97924779	75
MAGNA1 D 65-40 F	340			97924787	77
MAGNA1 D 65-60 F	340			97924788	79
MAGNA1 D 65-80 F	340			97924789	81
MAGNA1 D 65-100 F	340			97924790	83
MAGNA1 D 65-120 F	340			97924791	85
MAGNA1 D 65-150 F	340			97924792	87
MAGNA1 D 80-40 F	360	97924799	97924809		89
MAGNA1 D 80-60 F	360	97924800	97924810		91
MAGNA1 D 80-80 F	360	97924801	97924811		93
MAGNA1 D 80-100 F	360	97924802	97924812		95
MAGNA1 D 80-120 F	360	97924803	97924813		97
MAGNA1 D 100-40 F	450	97924804	97924814		99
MAGNA1 D 100-60 F	450	97924805	97924815		101
MAGNA1 D 100-80 F	450	97924806	97924816		103
MAGNA1 D 100-100 F	450	97924807	97924817		105
MAGNA1 D 100-120 F	450	97924808	97924818		107

Note: Click on the product number and go directly to the performance curve in Grundfos Product Center.

12. Grundfos Product Center

Online search and sizing tool to help you make the right choice.

<http://product-selection.grundfos.com>



SIZING enables you to size a pump based on entered data and selection choices.

REPLACEMENT enables you to find a replacement product. Search results will include information on

- the lowest purchase price
- the lowest energy consumption
- the lowest total life cycle cost.

The screenshot shows the Grundfos Product Center website. At the top, there is a navigation bar with 'HOME', 'FIND PRODUCT', 'COMPARE', 'YOUR PROJECTS', 'SAVED ITEMS', and 'HELP'. Below this is a search bar with a 'SEARCH' button. The main content area is titled 'FIND PRODUCTS AND SOLUTIONS' and features four large colored buttons: 'SIZING' (blue), 'CATALOGUE' (green), 'REPLACEMENT' (orange), and 'LIQUIDS' (brown). Below these buttons is a 'QUICK SIZING' section with input fields for 'Flow (Q)*' and 'Head (H)*', a 'Select what to size by' section with radio buttons for 'Size by application', 'Size by pump design', and 'Size by pump family', and a 'START SIZING' button. At the bottom of the quick sizing section, there are links for 'Advanced sizing by application' and 'Guided selection'.

CATALOGUE gives you access to the Grundfos product catalogue.

LIQUIDS enables you to find pumps designed for aggressive, flammable or other special liquids.

All the information you need in one place

Performance curves, technical specifications, pictures, dimensional drawings, motor curves, wiring diagrams, spare parts, service kits, 3D drawings, documents, system parts. The Product Center displays any recent and saved items - including complete projects - right on the main page.

Downloads

On the product pages, you can download installation and operating instructions, data booklets, service instructions, etc. in PDF format.

Subject to alterations.

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