

Heating



Air-conditioning / Refrigeration



Service water



**Valid from 07/2018 - EX**

# High efficiency Circulation Pumps

More than pumps



## Biral – With all our heart



### Biral Vision

**Four core thoughts determine the way we think and act:**

We are the leading supplier of innovative and efficient pump solutions.

Technical competence, proximity to the customer and flexibility in solving special customer concerns create perceptible customer benefits.

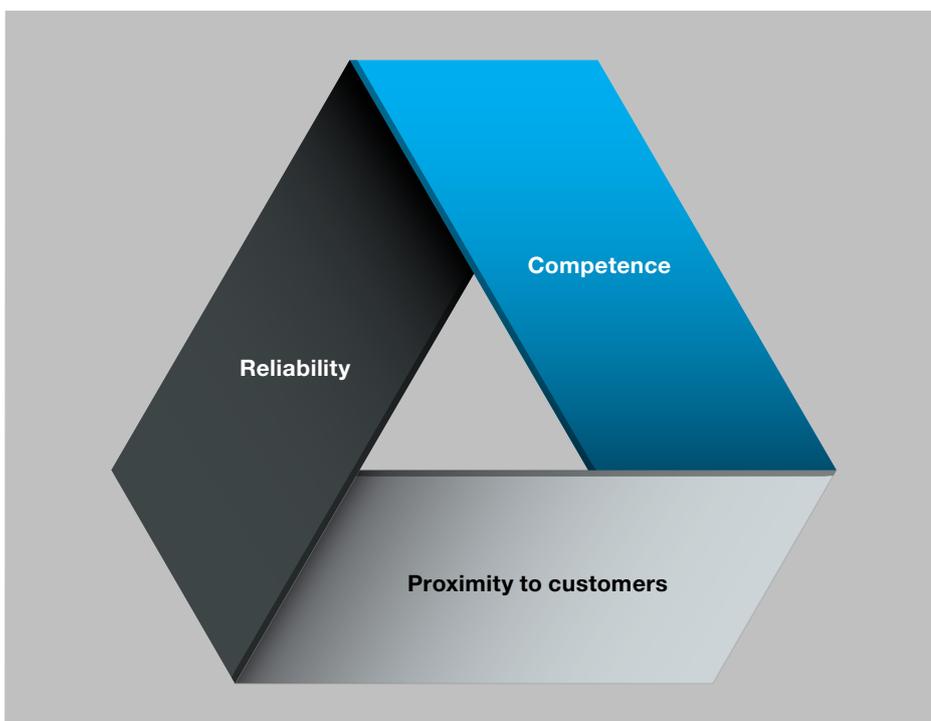
We constantly maintain a respectful and trustworthy partnership with our customers and partners to achieve this.

Our work fills us with pride and is the incentive to consistently pursue this level of reliability and durability.

**We build upon competent employees, who put all their energy and passion into Biral.**



## Biral – your leading partner for innovative and efficient pump solutions



### More than pumps

**Where vision, values and responsibility become palpable to you.**

#### Competence

- Competent consultation as required
- Biral campus – the new Swiss pump competence centre

#### Reliability

- Innovative products of the highest quality
- A full range for all areas of use
- Logistics that respond without delay

#### Proximity to customers

- Virtual planning support
- User-friendly documentation and data sources

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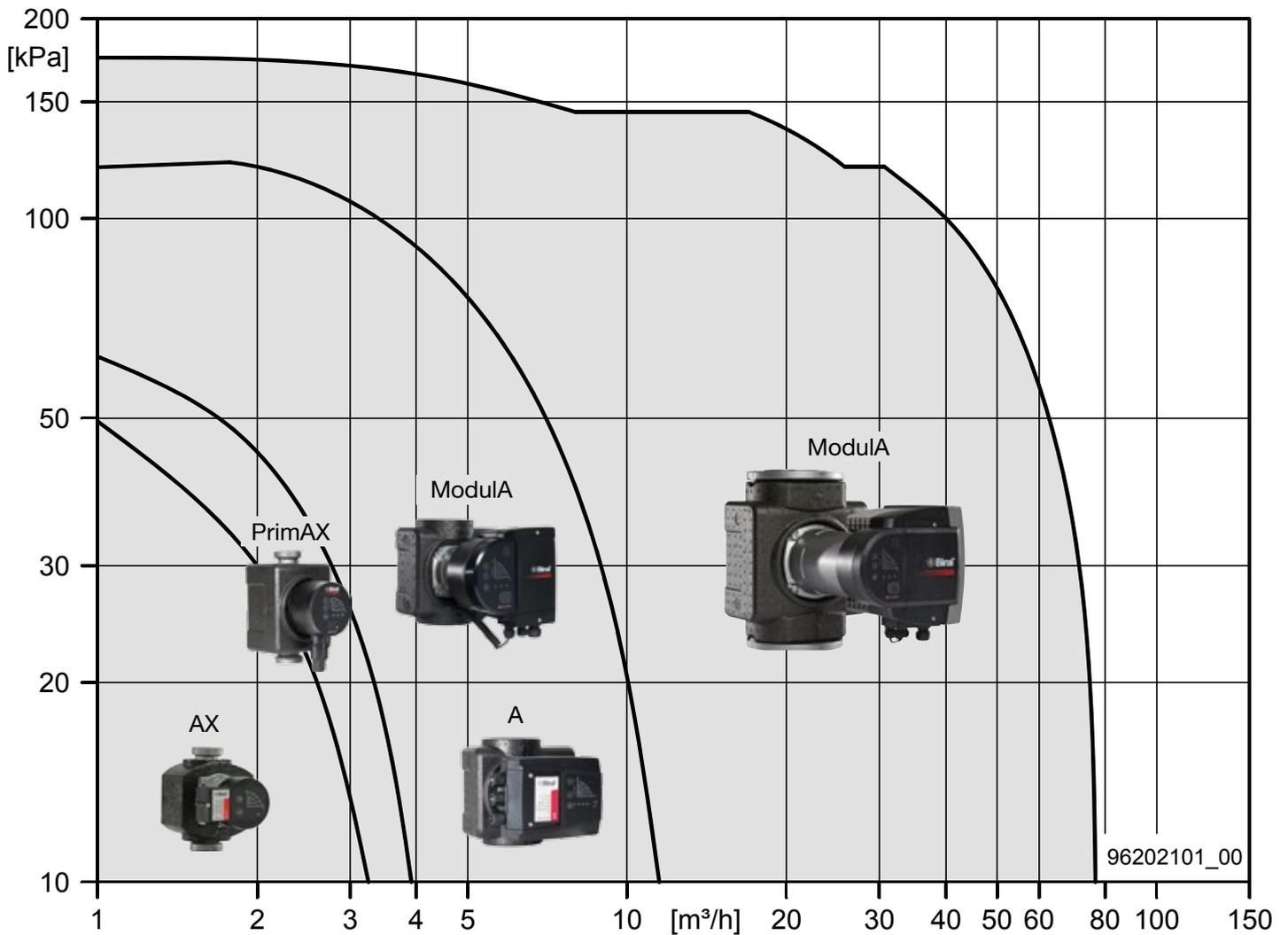
Heating

Air conditioning / refrigeration

Service water

## General information

### Overview of characteristics for heating circulation pumps



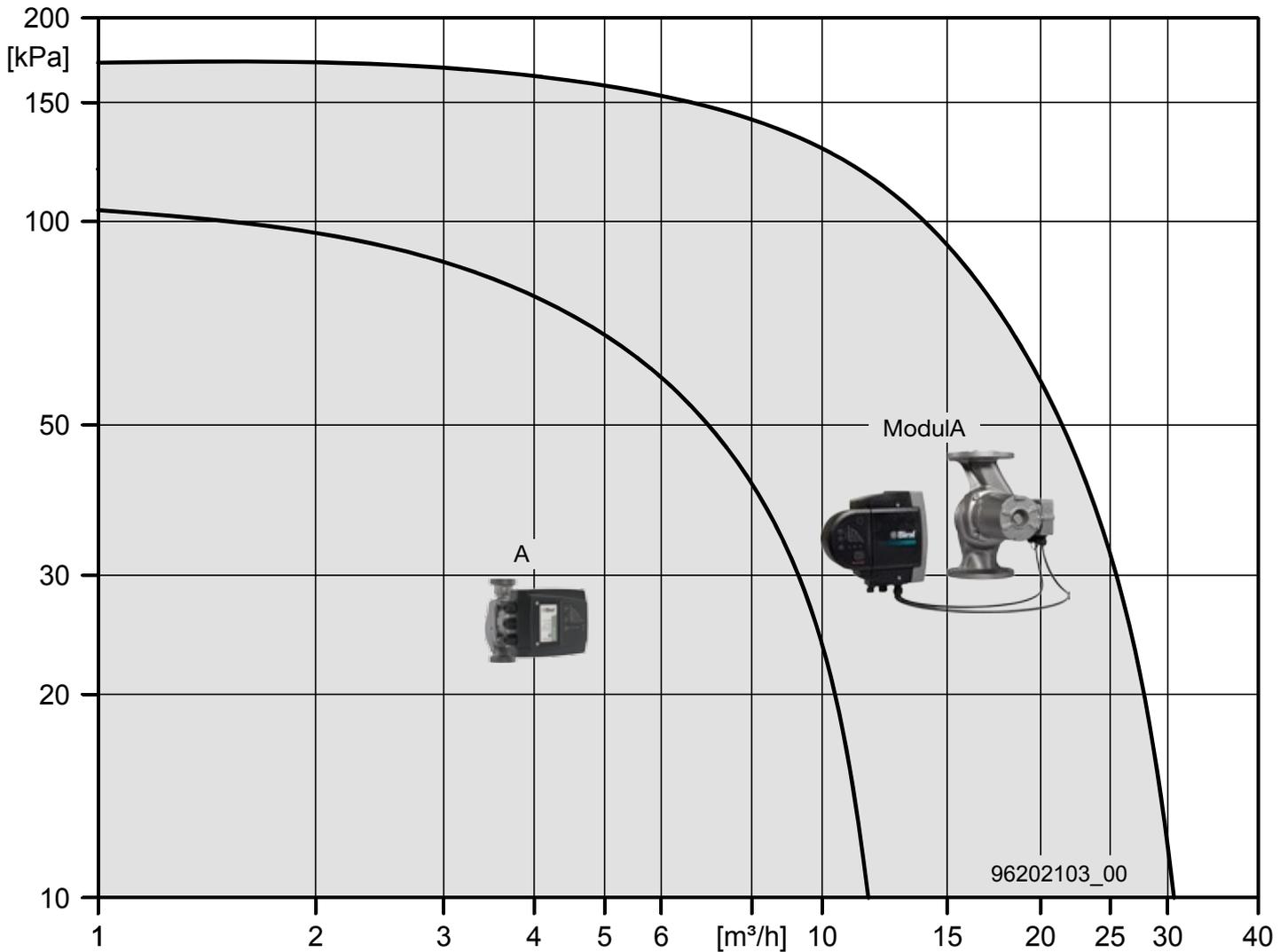
RED

#### Heating / ventilation

Functions	AX... RED	PrimAX... RED	A	ModuA... RED
Fluid temperature	15 – 110°C	2 – 110°C	15 - 95°C	15 – 110°C
Fault message/Operational message (switchable between)	–	–	✓	✓
External OFF or external ON (switchable between)	–	–	–	✓
Power Limit (activatable)	–	–	–	✓
Button lock	–	✓	–	✓
Flow rate indicator	–	✓	–	✓
Biral Remote Adapter (optional)	–	–	–	✓
Power limiting (deactivatable)	–	–	✓	✓
Automatic night-time reduction (activatable)	✓	–	–	–
BIM Biral Interface Modules	–	–	✓	✓

## General information

### Overview of characteristics for cold water circulation pumps



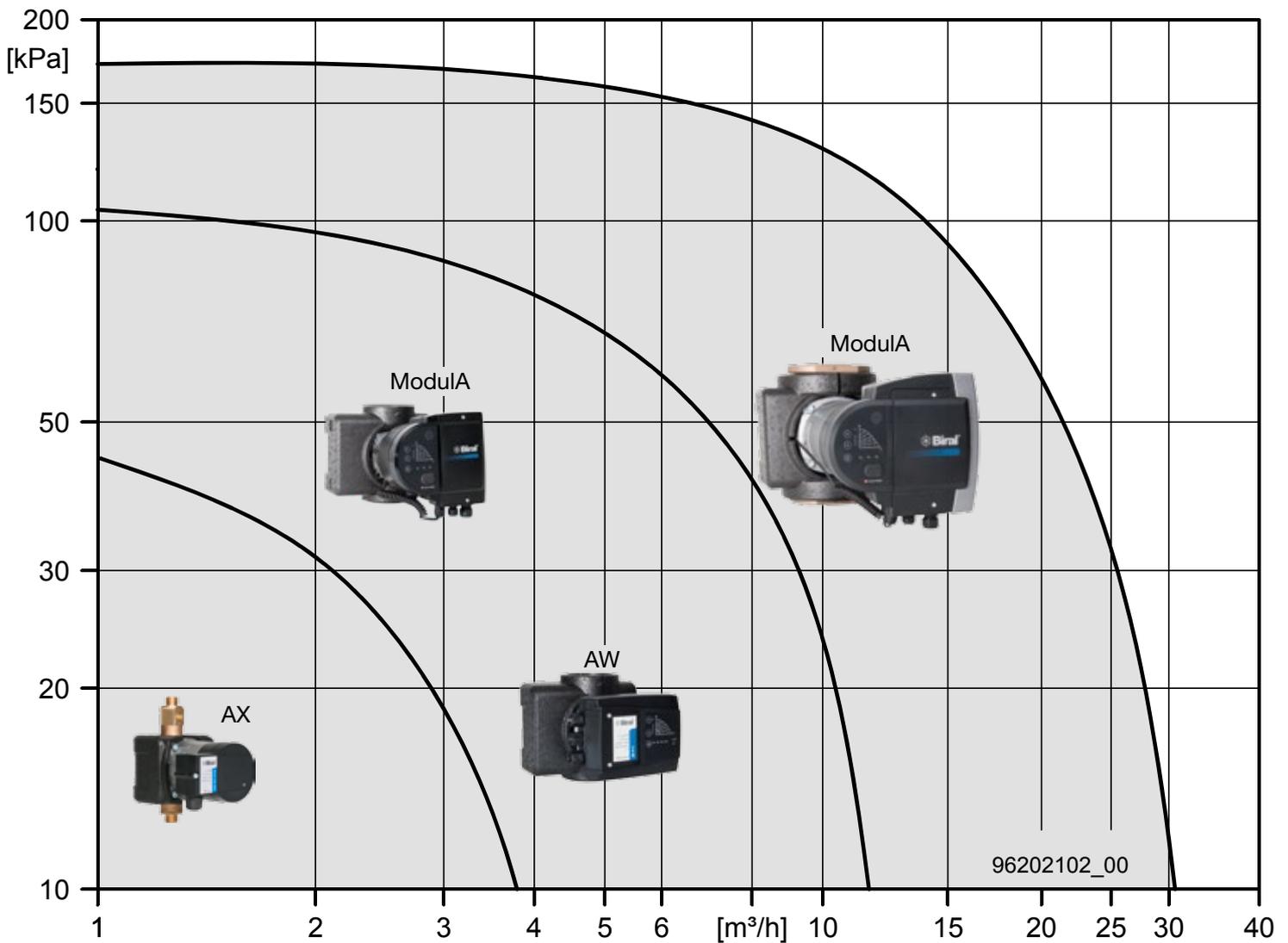
GREEN

Air conditioning/refrigeration

Functions	A... KW	ModuA... GREEN
Fluid temperature	-10 – 95°C	-10 – 110°C
Fault message/Operational message (switchable between)	✓	✓
External OFF or external ON (switchable between)	–	✓
Power Limit (activatable)	–	✓
Button lock	–	✓
Flow rate indicator	–	✓
Discrete installation of electronics	–	✓
Biral Remote Adapter (optional)	–	✓
Power limiting (deactivatable)	✓	–
Automatic night-time reduction (activatable)	✓	–
BIM Biral Interface Modules	✓	✓

## General information

### Overview of characteristics for service water pumps



BLUE



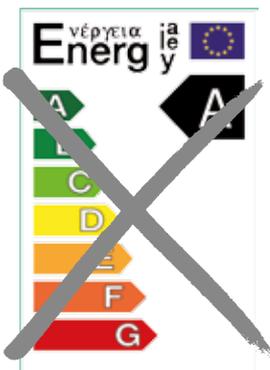
Service water

Functions	AX... BLUE	AW	ModuA... BLUE
Fluid temperature	15 – 85°C	15 – 85°C	15 – 85°C
Fault message/Operational message (switchable between)	–	✓	✓
External OFF or external ON (switchable between)	–	–	✓
Power limit (activatable)	–	–	✓
Button lock	–	–	✓
Flow rate indicator	–	–	✓
Biral Remote Adapter (optional)	–	–	✓
Power limit (deactivatable)	–	✓	–
Automatic night-time reduction (activatable)	✓	✓	–
BIM Biral Interface Modules	–	✓	✓

## General information

### Biral ECO Design

The old energy label with the ratings from «A» to «G» have been replaced by a new energy efficiency index (EEI) as of 1 January 2013.



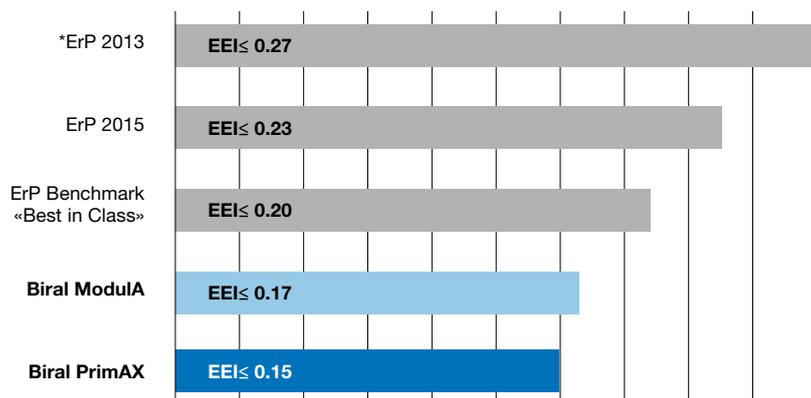
#### The new Biral ECO Design label

The new ECO Design label from Biral shows you at a glance that your pump belongs to the top of the class in energy efficiency. A Biral product labelled with the «ECO Design» saves up to 80% energy.

Exchanging older pumps with a new ModulA from Biral already pays off in significantly lower energy costs even after just a short time.



### Efficiency as an obligation



\* ErP: Energy-related Product Directive

The highly efficient mini-energy circulation pumps from Biral are extremely energy-efficient and meet the requirements of the ECO Design guidelines (EC Regulation no. 641/2009), that have been informed since 1 January 2013. Even the more stringent EEI values as of August 2015 are surpassed.

#### Reference value

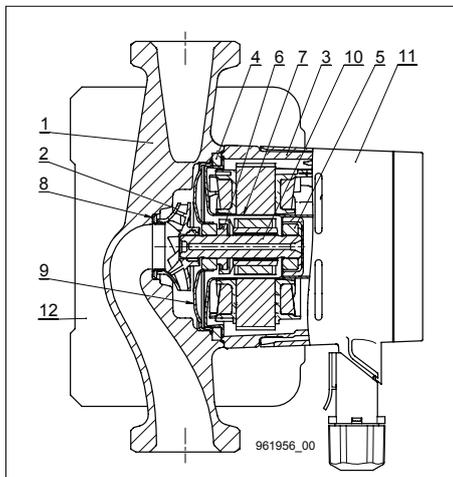
for the most efficient circulation pumps:  
EEI ≤ 0,20

Drinking water circulation pumps do not come under the ECO Design guidelines. Nevertheless, Biral has highly efficient, energy-saving pumps in its product range here as well.

## Product information

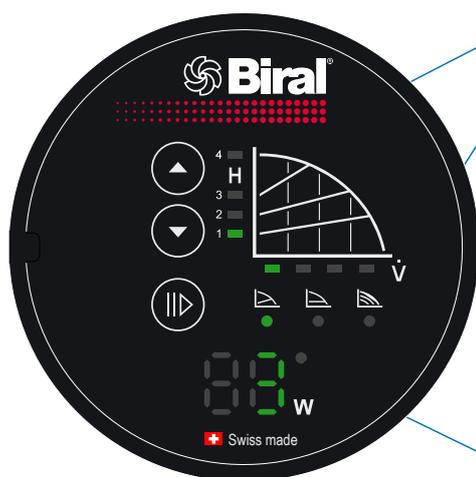
### PrimAX

#### Summary of materials



Pos.	Component	PrimAX material
1	Pump casing	Grey cast iron
2	Impeller	PES
3	Stator casing	Aluminium
4	Seal	EPDM
5	Slide bearing	Ceramic
6	Axial bearing	Synthetic carbons and EPDM
7	Can	Stainless steel
8	Split ring	Stainless steel
9	Bearing cover	Stainless steel
10	Shaft	Ceramic
11	Frequency converter	PC GF10
12	Heat insulation shells	EPP, fire protection class B2 DIN 4102

#### Operation



**Control characteristics**  
4 stages can be set

**Flow indicator**  
The flow indicator displays the approximate flow and helps when commissioning the pumps.

**Setting the control type**

- Proportional pressure (pp)
- Constant pressure (cp)
- Constant speed (cs)

**Status and watt display**



+2°C to 110°C



#### Functions

**Deblocking system**  
The powerful start-up process makes the pump vibrate, to release any dirt deposits after longer periods of inactivity.

**Magnetic-resistant**  
The magnetic-resistant ceramic shaft and bearing reduce the risk of blocking by iron or other magnetic particles.

**Installation depth**  
With an installation depth of 103.3 mm, the pump is more compact than any other pump and is suitable for installation in extremely tight spaces.

**Biral connector**  
The Biral connector with screw clamps guarantees quick and easy installation.

**Angle plug**  
The angle plug is ideal for use in restricted spaces and is included as standard.

**Key lock**  
The key lock gives protection from unwanted switching of the pump after commissioning.

## Premium heating circulation pumps

### ModulA... RED



#### Summary

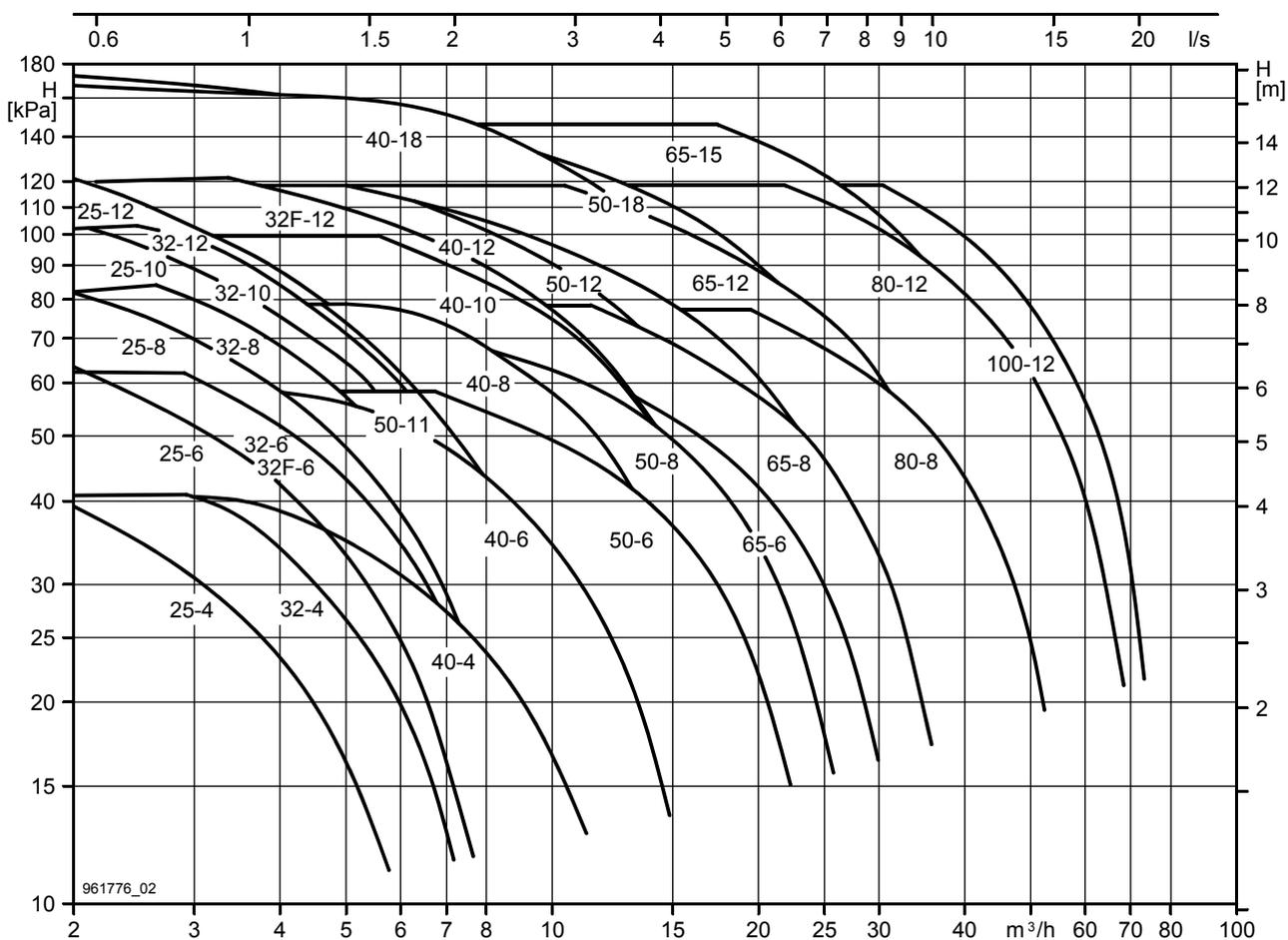
Type		Nominal width	Discharge head max.	Installation length	Threaded connector	Operating pressure max.	EEI-value
		DN	m	mm		bar	
ModulA 25-4 180 RED	2204520350	25	4	180	G 1½"	10	≤0.19
ModulA 25-6 180 RED	2204530350	25	6	180	G 1½"	10	≤0.19
ModulA 25-8 180 RED	2204540350	25	8	180	G 1½"	10	≤0.19
ModulA 25-10 180 RED	2204550350	25	10	180	G 1½"	10	≤0.19
ModulA 25-12 180 RED	2204560350	25	12	180	G 1½"	10	≤0.19
ModulA 32-4 170 RED	2204570350	32	4	170	G 2"	10	≤0.18
ModulA 32-6 170 RED	2204580350	32	6	170	G 2"	10	≤0.18
ModulA 32-8 170 RED	2204590350	32	8	170	G 2"	10	≤0.18
ModulA 32-10 170 RED	2204600350	32	10	170	G 2"	10	≤0.18
ModulA 32-12 170 RED	2204610350	32	12	170	G 2"	10	≤0.18
ModulA 32-4 180 RED	2204620350	32	4	180	G 2"	10	≤0.18
ModulA 32-6 180 RED	2204630350	32	6	180	G 2"	10	≤0.18
ModulA 32-8 180 RED	2204640350	32	8	180	G 2"	10	≤0.18
ModulA 32-10 180 RED	2204650350	32	10	180	G 2"	10	≤0.18
ModulA 32-12 180 RED	2204660350	32	12	180	G 2"	10	≤0.18

Type		Nominal width	Discharge head max.	Installation length	Flange connection	Operating pressure max.	EEI-value
		DN	m	mm		bar	
ModulA 32F-6 220 RED	2204680350	32	6	220	PN 6	6	≤0.18
ModulA 32F-12 220 RED	2200700350	32	12	220	PN 6-16	16	≤0.18
ModulA 40-4 220 RED	2200730350	40	4	220	PN 6-16	16	≤0.18
ModulA 40-6 220 RED	2200740350	40	6	220	PN 6-16	16	≤0.19
ModulA 40-8 220 RED	2200750350	40	8	220	PN 6-16	16	≤0.19
ModulA 40-10 220 RED	2200760350	40	10	220	PN 6-16	16	≤0.19
ModulA 40-12 250 RED	2200770350	40	12	250	PN 6-16	16	≤0.18
ModulA 40-18 250 RED	2200790350	40	18	250	PN 6-16	16	≤0.18
ModulA 50-6 240 RED	2200810350	50	6	240	PN 6-16	16	≤0.19
ModulA 50-8 240 RED	2200820350	50	8	240	PN 6-16	16	≤0.18
ModulA 50-11 220 RED	2204730350	50	11	220	PN 6-16	16	≤0.19
ModulA 50-12 270 RED	2200840350	50	12	270	PN 6-16	16	≤0.18
ModulA 50-18 270 RED	2200860350	50	18	270	PN 6-16	16	≤0.17
ModulA 65-6 270 RED	2200880350	65	6	270	PN 6-16	16	≤0.17
ModulA 65-8 270 RED	2200890350	65	8	270	PN 6-16	16	≤0.17
ModulA 65-12 340 RED	2200970350	65	12	340	PN 6-16	16	≤0.17
ModulA 65-15 340 RED	2200980350	65	15	340	PN 6-16	16	≤0.17
ModulA 80-8 360 RED PN6	2201010350	80	8	360	PN 6	6	≤0.17
ModulA 80-8 360 RED PN10/16	2201012350	80	8	360	PN 10/16	16	≤0.17
ModulA 80-12 360 RED PN6	2201030350	80	12	360	PN 6	6	≤0.17
ModulA 80-12 360 RED PN10/16	2201032350	80	12	360	PN 10/16	16	≤0.17
ModulA 100-12 450 RED PN6	2201090350	100	12	450	PN 6	6	≤0.17
ModulA 100-12 450 RED PN10/16	2201092350	100	12	450	PN 10/16	16	≤0.17

### Order reference

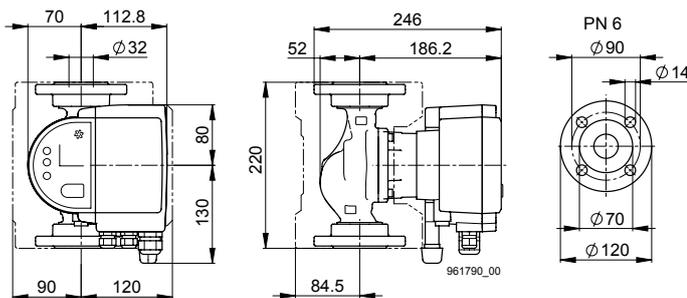
	<b>Modula (-D) 32 (F) -6 220 RED</b>
Series	_____
Single pump	_____
Twin pump (-D)	_____
Nominal width (DN) [mm]	_____
Pipeline connection Flange (F)	_____
Discharge head max. [m]	_____
Installation height [mm]	_____
Field of application Heating (RED) Cold water (GREEN) Service water (BLUE)	_____

Heating



## ModuA 32F-6 220 RED

Nominal width	DN 32
Discharge head max.	6 m
Installation length	220 mm
Flange connection	PN 6
Operating pressure max.	6 bar
Media temperature min.	+15°C
Media temperature max.	+110°C
Ambient temperature	0°C to 40°C
Net weight	7.0 kg



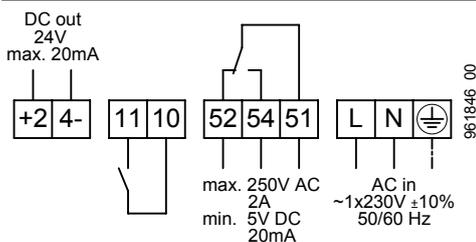
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power $P_1$	11-105 W
Rated current	0.1-0.79 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.12 bar
at 95°C water temperature	0.37 bar
at 110°C water temperature	1.02 bar
for every ±100 m altitude	±0.01 bar

### Connection diagram



- +24-** 24 V DC out
- 11, 10** External OFF or external ON
- 52, 54, 51** Error or operating message
- L, N, PE** Power supply

### Switch

- 1 Fault or operating message (switchable)
- 2 External OFF or external ON (switchable)
- 3 Power Limit (activatable)

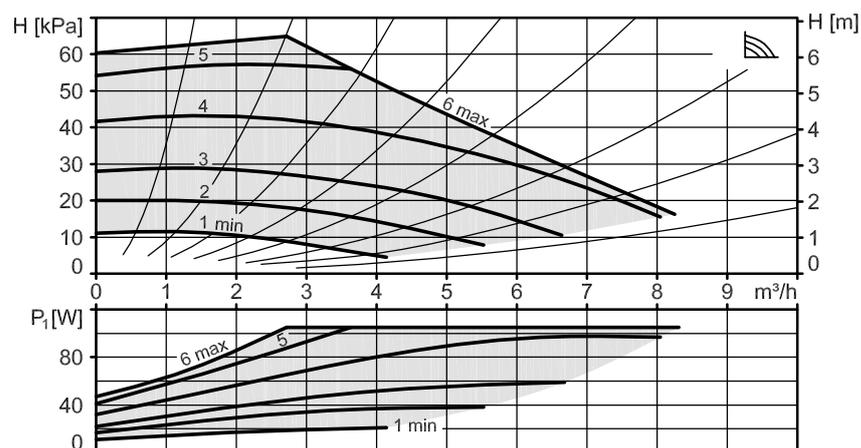
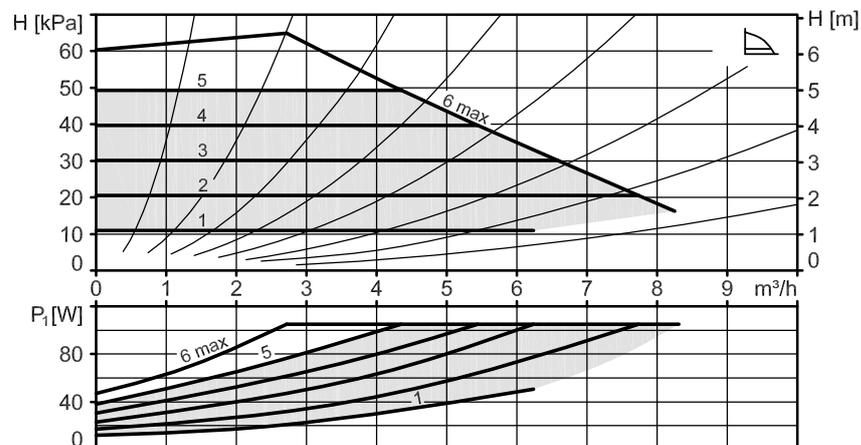
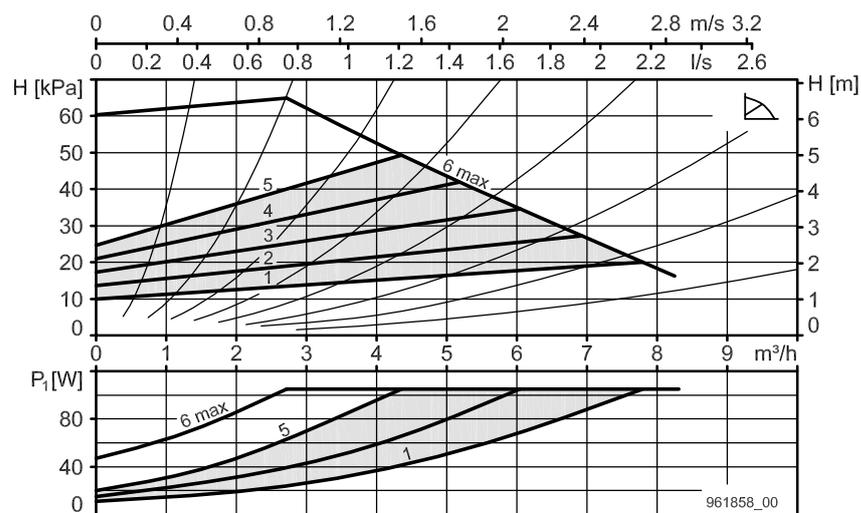
### Included in the scope of delivery

- Heat insulation shell
- Sealing set for flange PN 6

### Accessories

- BIM A2 Signalmodul
- BIM B3 control module
- BIM BUS-Module
- Biral Remote Adapter

<b>Type</b>	<b>Article number Biral</b>
ModuA 32F-6 220 RED	2204680350



## Premium heating circulation pumps

### ModulA-D... RED

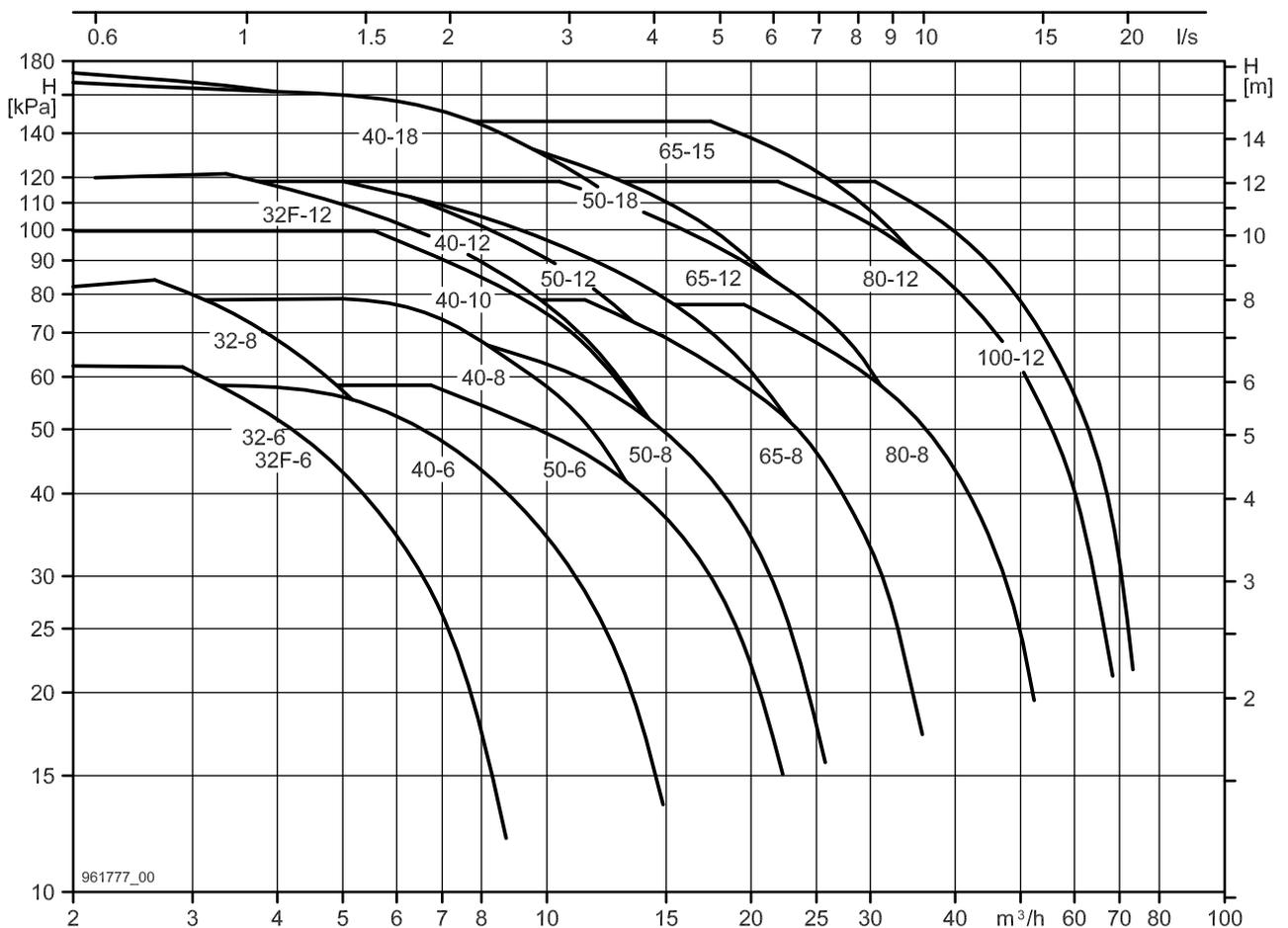
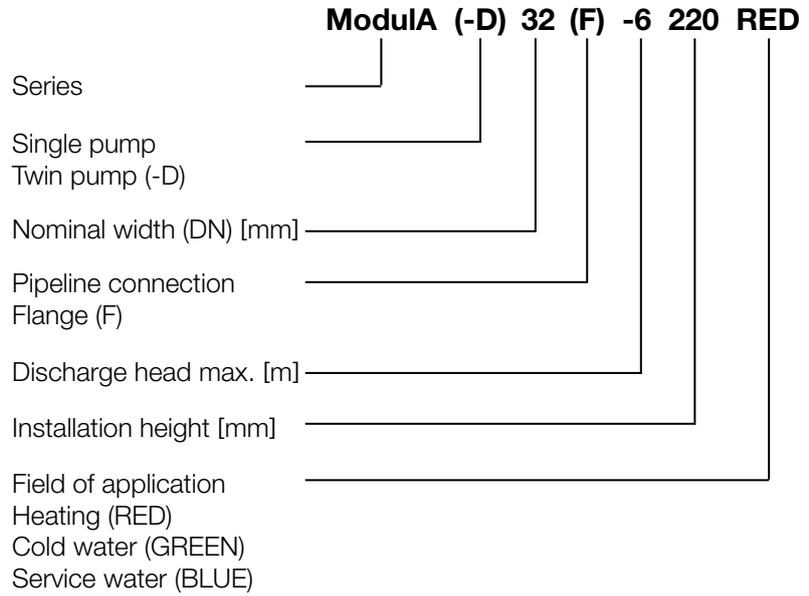


#### Summary

Type		Nominal width	Discharge head max.	Installation length	Threaded connector	Operating pressure max.	EEI-value
		DN	m	mm		bar	
ModulA-D 32-6 180 RED	2204760350	32	6	180	G 2"	10	≤0.18
ModulA-D 32-8 180 RED	2204770350	32	8	180	G 2"	10	≤0.18

Type		Nominal width	Discharge head max.	Installation length	Flange connection	Operating pressure max.	EEI-value
		DN	m	mm		bar	
ModulA-D 32F-6 220 RED	2204810350	32	6	220	PN 6	6	≤0.18
ModulA-D 32F-12 220 RED	2201650350	32	12	220	PN 6-16	16	≤0.18
ModulA-D 40-6 220 RED	2201690350	40	6	220	PN 6-16	16	≤0.19
ModulA-D 40-8 220 RED	2201700350	40	8	220	PN 6-16	16	≤0.19
ModulA-D 40-10 220 RED	2201710350	40	10	220	PN 6-16	16	≤0.19
ModulA-D 40-12 250 RED	2201720350	40	12	250	PN 6-16	16	≤0.18
ModulA-D 40-18 250 RED	2201740350	40	18	250	PN 6-16	16	≤0.18
ModulA-D 50-6 240 RED	2201760350	50	6	240	PN 6-16	16	≤0.18
ModulA-D 50-8 240 RED	2201770350	50	8	240	PN 6-16	16	≤0.18
ModulA-D 50-12 270 RED	2201790350	50	12	270	PN 6-16	16	≤0.18
ModulA-D 50-18 270 RED	2201810350	50	18	270	PN 6-16	16	≤0.17
ModulA-D 65-8 340 RED	2201840350	65	8	340	PN 6-16	16	≤0.17
ModulA-D 65-12 340 RED	2201860350	65	12	340	PN 6-16	16	≤0.17
ModulA-D 65-15 340 RED	2201870350	65	15	340	PN 6-16	16	≤0.17
ModulA-D 80-8 360 RED PN6	2201900350	80	8	360	PN 6	6	≤0.17
ModulA-D 80-8 360 RED PN10/16	2201902350	80	8	360	PN 10/16	16	≤0.17
ModulA-D 80-12 360 RED PN6	2201920350	80	12	360	PN 6	6	≤0.17
ModulA-D 80-12 360 RED PN10/16	2201922350	80	12	360	PN 10/16	16	≤0.17
ModulA-D 100-12 450 RED PN6	2201980350	100	12	450	PN 6	6	≤0.17
ModulA-D 100-12 450 RED PN10/16	2201982350	100	12	450	PN 10/16	16	≤0.17

### Order reference





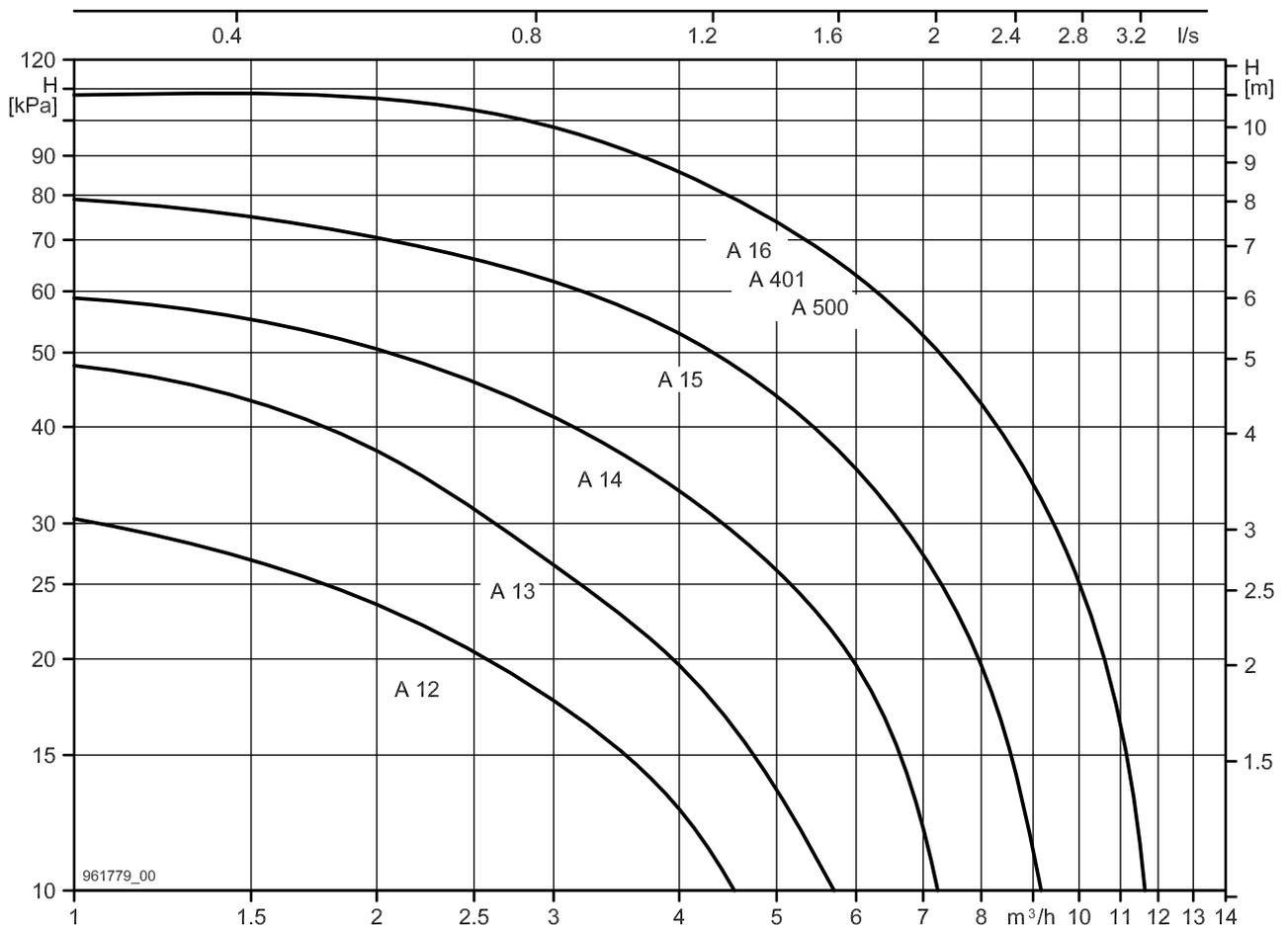
## Heating circulation pumps

### A 12...A 500

#### Summary

Type		Nominal width	Discharge head max.	Installation length	Threaded connector	Operating pressure max.	EEI-value
		DN	m	mm		bar	
A 12	1157380150	32	4	170	G 2"	10	≤0.21
A 13	1157410150	32	5	170	G 2"	10	≤0.21
A 14	1157160150	32	6	170	G 2"	10	≤0.22
A 15	1157190150	32	8	170	G 2"	10	≤0.22
A 12-1	1157390150	25	4	180	G 1½"	10	≤0.21
A 13-1	1157420150	25	5	180	G 1½"	10	≤0.21
A 14-1	1157170150	25	6	180	G 1½"	10	≤0.22
A 15-1	1157200150	25	8	180	G 1½"	10	≤0.22
A 16-1	1160410150	25	11	180	G 1½"	10	≤0.21
A 12-2	1157400150	32	4	180	G 2"	10	≤0.21
A 13-2	1157430150	32	5	180	G 2"	10	≤0.21
A 14-2	1157180150	32	6	180	G 2"	10	≤0.22
A 15-2	1157210150	32	8	180	G 2"	10	≤0.22
A 16-2	1157440150	32	11	180	G 2"	10	≤0.21

Type		Nominal width	Discharge head max.	Installation length	Flange connection	Operating pressure max.	EEI-value
		DN	m	mm		bar	
A 401	1157450150	40	11	220	PN 6/10	10	≤0.22
A 401-1	1157460150	40	11	250	PN 6/10	10	≤0.22
A 500	1161360150	50	11	220	PN 6/10	10	≤0.22



## A 12

## A 12-1

## A 12-2

Nominal width	DN 25   DN 32
Discharge head max.	4 m
Installation length	170   180 mm
Threaded connector	G 1½"   G 2"
Operating pressure max.	10 bar
Media temperature min.	+15°C
Media temperature max.	+95/+110°C *
Ambient temperature	max. 40°C
Net weight	3.8 kg

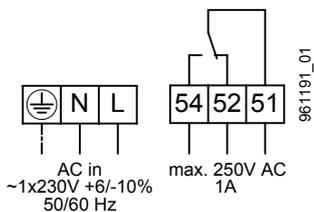
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power P <sub>1</sub>	8-33 W
Rated current	0.1-0.25 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.10 bar
at 95°C water temperature	0.55 bar
for every ±100 m altitude	±0.01 bar

### Connction diagram



52, 54, 51 Error or operating message

L, N, PE Power supply

### Switch

- 1 Power limiting (can be deactivated)
- 2 Fault or operating message (switchable)

### Included in the scope of delivery

- Heat insulation shell

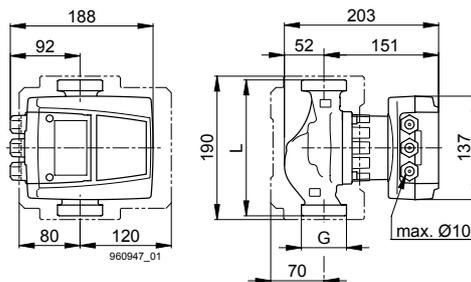
### Accessories

- BIM A signal module
- BIM B control module

### Comments

\* temporarily (ca. 30 min)

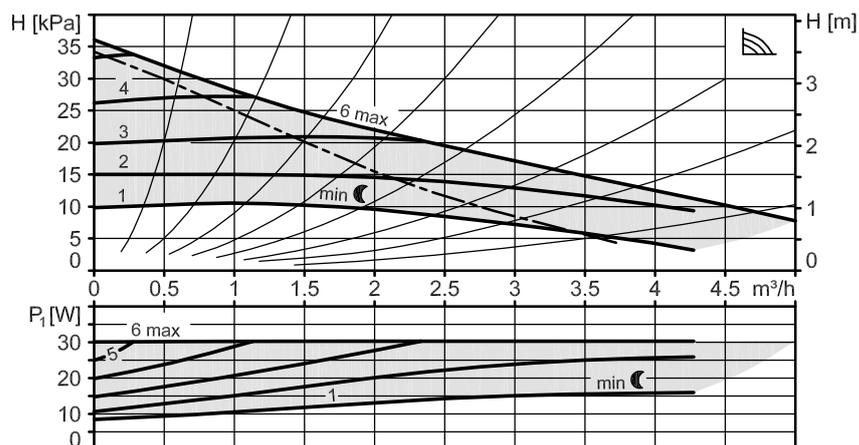
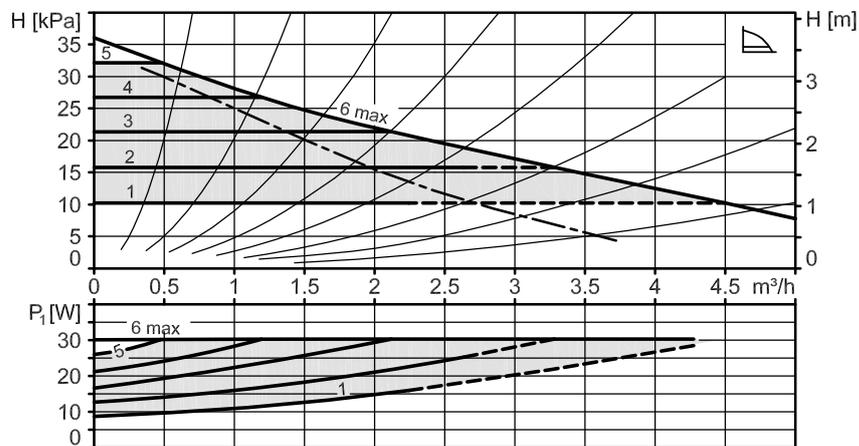
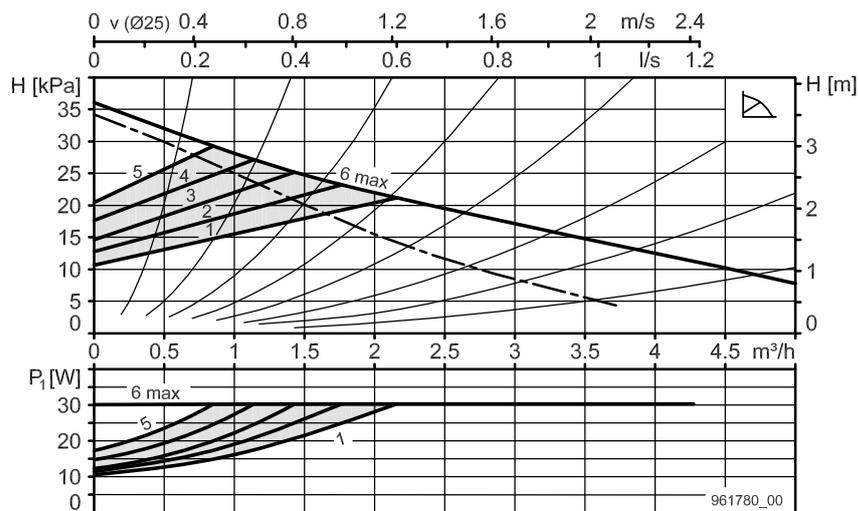
Type	Article number Biral
A 12	1157380150
A 12-1	1157390150
A 12-2	1157400150



A 12	A 12-1
DN 32	DN 25
L = 170 mm	L = 180 mm
G = 2"	G = 1½"

A 12-2
DN 32
L = 180 mm
G = 2"



## A 13

## A 13-1

## A 13-2

Nominal width	DN 25   DN 32
Discharge head max.	5 m
Installation length	170   180 mm
Threaded connector	G 1½"   G 2"
Operating pressure max.	10 bar
Media temperature min.	+15°C
Media temperature max.	+95/+110°C *
Ambient temperature	max. 40°C
Net weight	3.8 kg

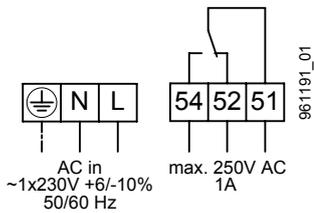
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power P <sub>1</sub>	8-50 W
Rated current	0.1-0.35 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.10 bar
at 95°C water temperature	0.55 bar
for every ±100 m altitude	±0.01 bar

### Connction diagram



**52, 54, 51** Error or operating message

**L, N, PE** Power supply

### Switch

- 1 Power limiting (can be deactivated)
- 2 Fault or operating message (switchable)

### Included in the scope of delivery

- Heat insulation shell

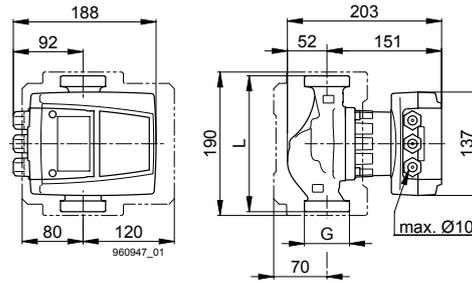
### Accessories

- BIM A signal module
- BIM B control module

### Comments

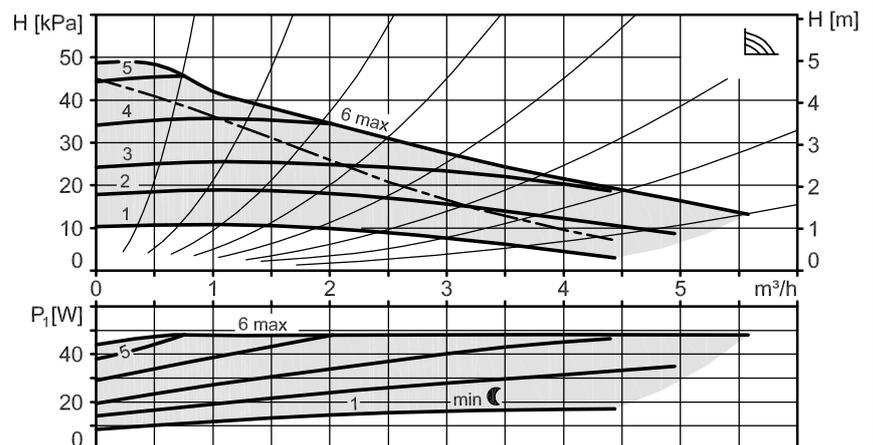
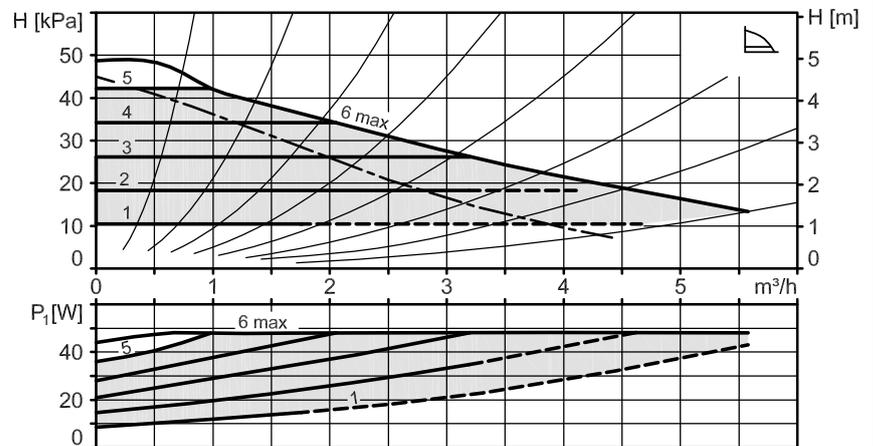
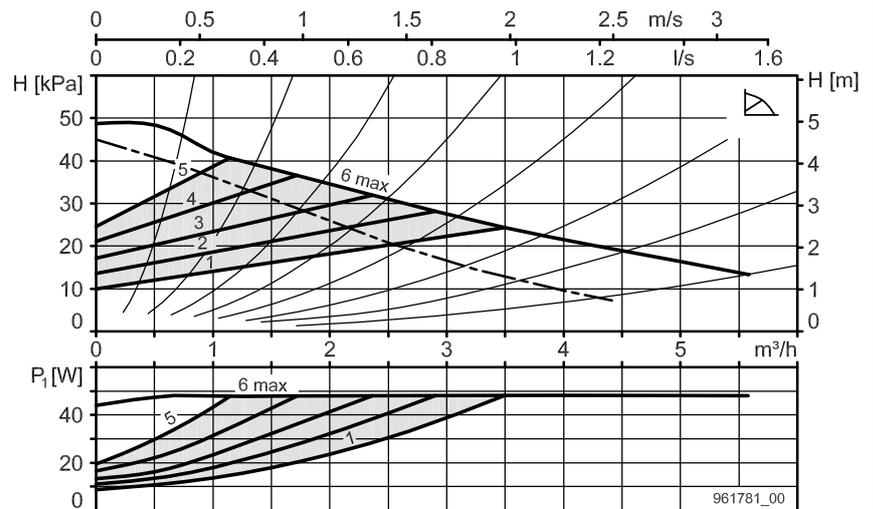
\* temporarily (ca. 30 min)

Type	Article number Biral
A 13	1157410150
A 13-1	1157420150
A 13-2	1157430150



A 13	A 13-1
DN 32	DN 25
L = 170 mm	L = 180 mm
G = 2"	G = 1½"

A 13-2
DN 32
L = 180 mm
G = 2"



## A 14

## A 14-1

## A 14-2

Nominal width	DN 32   DN 25
Discharge head max.	6 m
Installation length	170   180 mm
Threaded connector	G 2"   G 1½"
Operating pressure max.	10 bar
Media temperature min.	+15°C
Media temperature max.	+95/+110°C *
Ambient temperature	max. 40°C
Net weight	3.8 kg

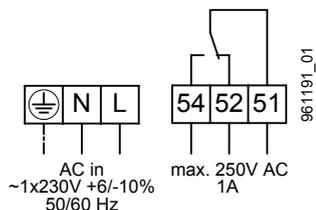
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power P <sub>1</sub>	8-70 W
Rated current	0.1-0.5 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.10 bar
at 95°C water temperature	0.55 bar
for every ±100 m altitude	±0.01 bar

### Connction diagram



**52, 54, 51** Error or operating message

**L, N, PE** Power supply

### Switch

- 1 Power limiting (can be deactivated)
- 2 Fault or operating message (switchable)

### Included in the scope of delivery

- Heat insulation shell

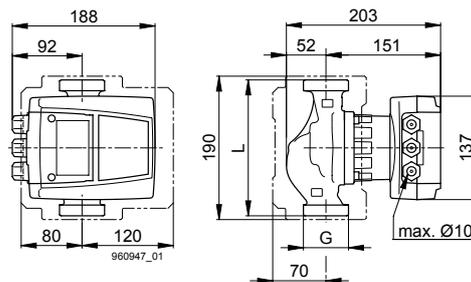
### Accessories

- BIM A signal module
- BIM B control module

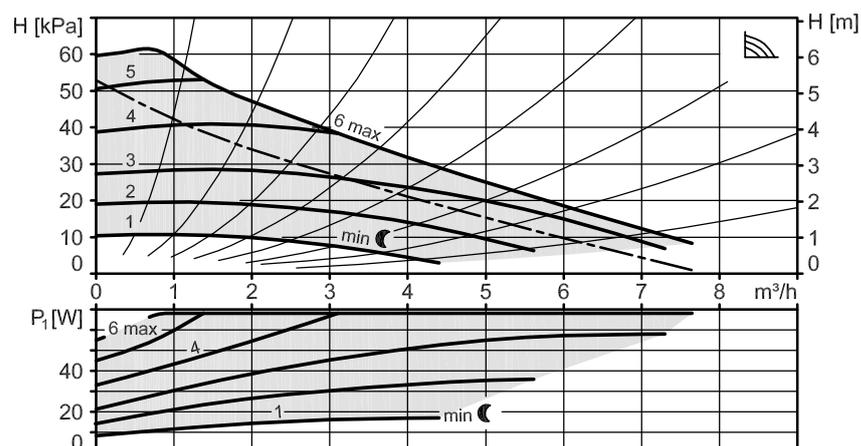
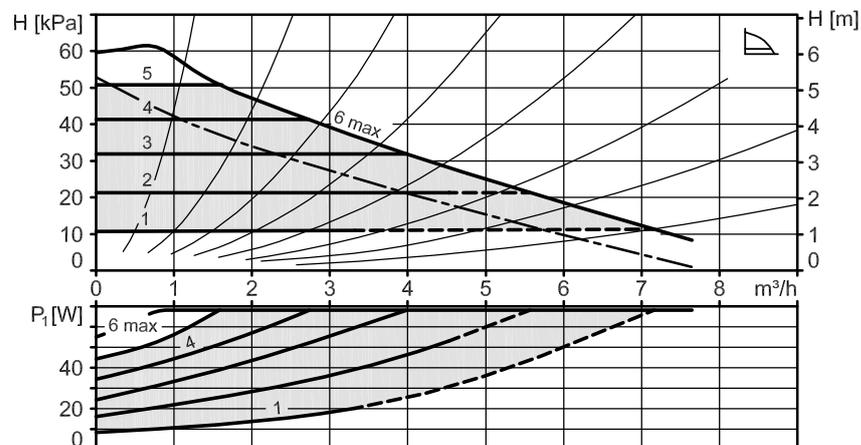
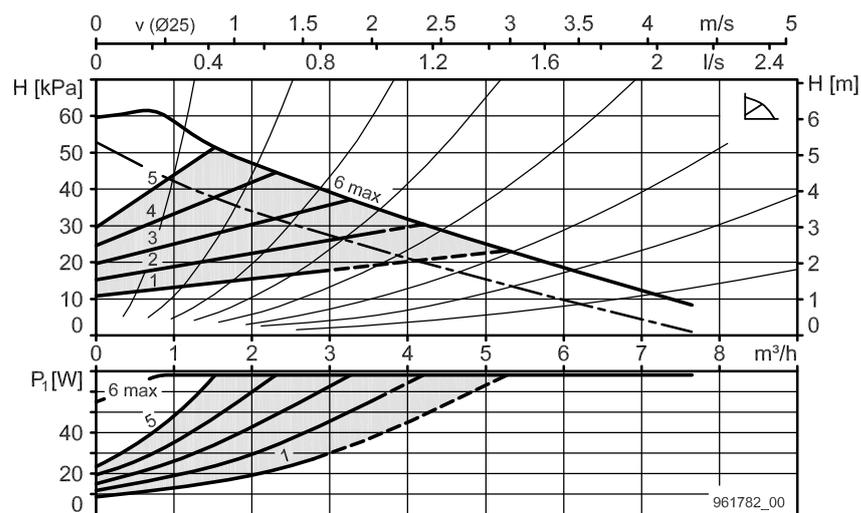
### Comments

\* temporarily (ca. 30 min)

Type	Article number Biral
A 14	1157160150
A 14-1	1157170150
A 14-2	1157180150



<b>A 14</b>	<b>A 14-1</b>
DN 32	DN 25
L = 170 mm	L = 180 mm
G = 2"	G = 1½"
<b>A 14-2</b>	
DN 32	
L = 180 mm	
G = 2"	



## A 15

## A 15-1

## A 15-2

Nominal width	DN 25   DN 32
Discharge head max.	8 m
Installation length	170   180 mm
Threaded connector	G 1½"   G 2"
Operating pressure max.	10 bar
Media temperature min.	+15°C
Media temperature max.	+95/+110°C *
Ambient temperature	max. 40°C
Net weight	3.8 kg

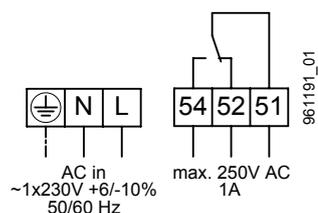
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power P <sub>1</sub>	8-107 W
Rated current	0.1-0.8 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.10 bar
at 95°C water temperature	0.55 bar
for every ±100 m altitude	±0.01 bar

### Connction diagram



**52, 54, 51** Error or operating message

**L, N, PE** Power supply

### Switch

- 1 Power limiting (can be deactivated)
- 2 Fault or operating message (switchable)

### Included in the scope of delivery

- Heat insulation shell

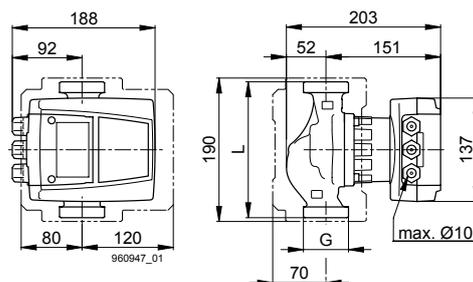
### Accessories

- BIM A signal module
- BIM B control module

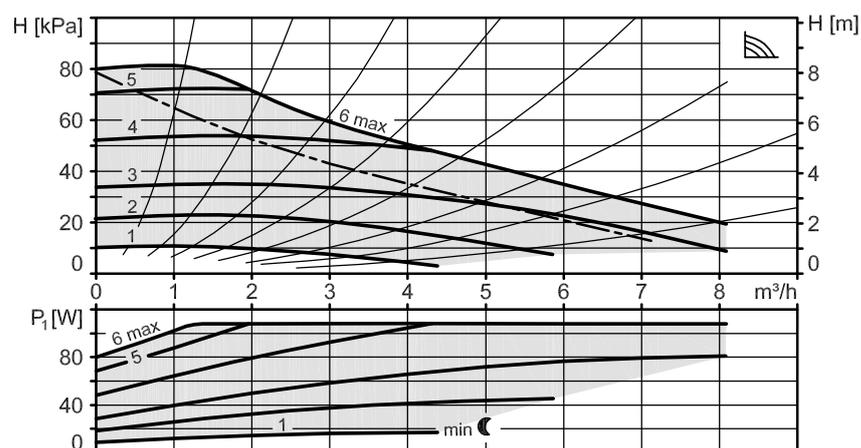
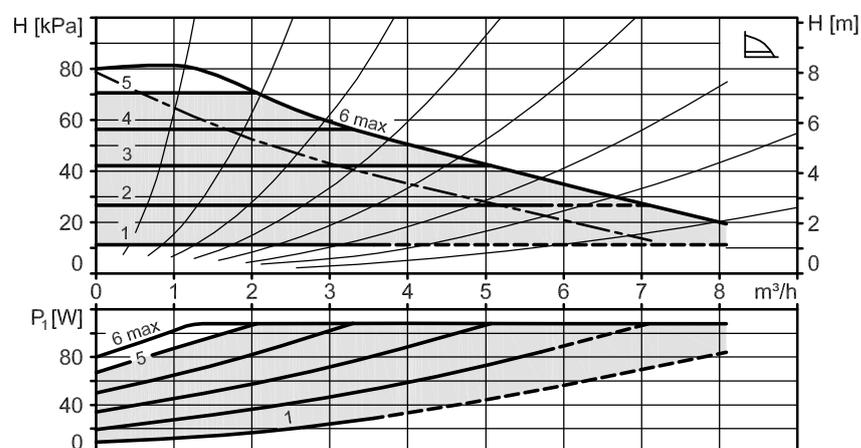
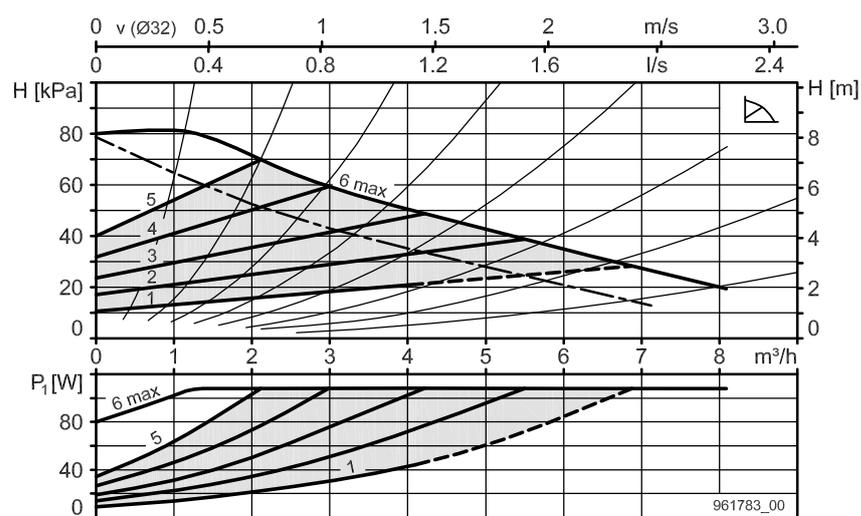
### Comments

\* temporarily (ca. 30 min)

Type	Article number Biral
A 15	1157190150
A 15-1	1157200150
A 15-2	1157210150



A 15	A 15-1
DN 32	DN 25
L = 170 mm	L = 180 mm
G = 2"	G = 1½"
A 15-2	
DN 32	
L = 180 mm	
G = 2"	



## A 16-1

## A 16-2

Nominal width	DN 25   DN 32
Discharge head max.	11 m
Installation length	180 mm
Threaded connector	G 1½"   G 2"
Operating pressure max.	10 bar
Media temperature min.	+15°C
Media temperature max.	+95/+110°C *
Ambient temperature	max. 40°C
Net weight	3.8 kg

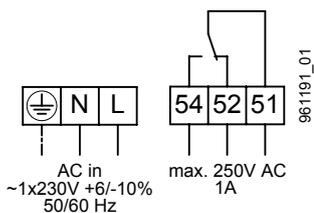
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power P <sub>1</sub>	8-174 W
Rated current	0.1-1.25 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.10 bar
at 95°C water temperature	0.55 bar
for every ±100 m altitude	±0.01 bar

### Connction diagram



**52, 54, 51** Error or operating message

**L, N, PE** Power supply

### Switch

- 1 Power limiting (can be deactivated)
- 2 Fault or operating message (switchable)

### Included in the scope of delivery

- Heat insulation shell

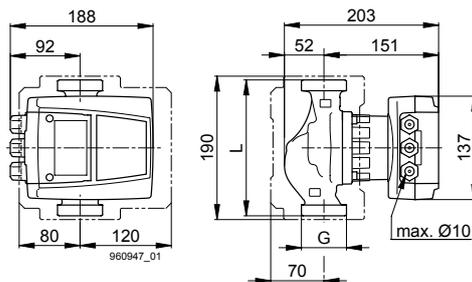
### Accessories

- BIM A signal module
- BIM B control module

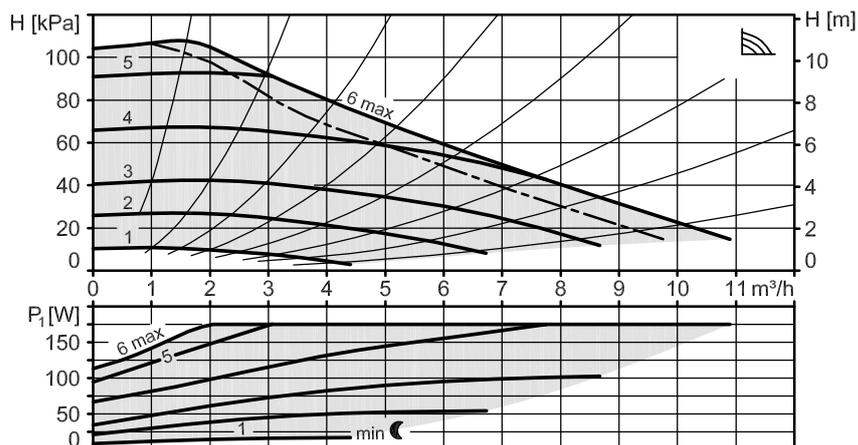
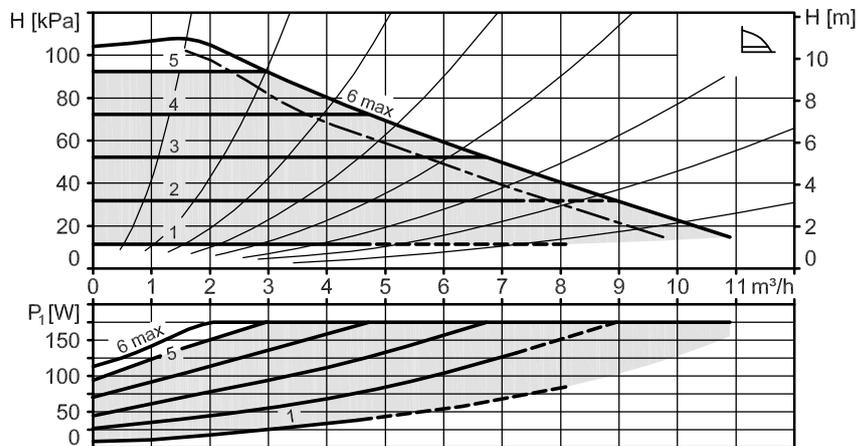
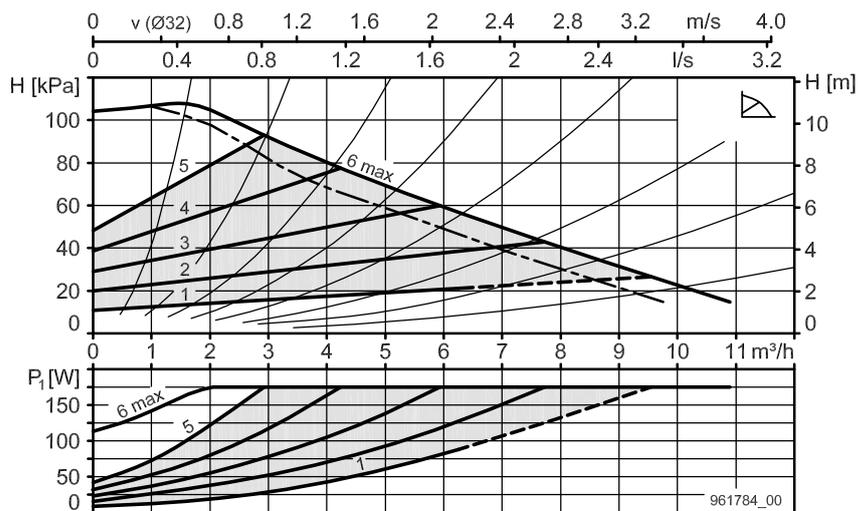
### Comments

\* temporarily (ca. 30 min)

Type	Article number Biral
A 16-1	1160410150
A 16-2	1157440150



A 16-1	A 16-2
DN 25	DN 32
L = 180 mm	L = 180 mm
G = 1½"	G = 2"



## A 401

## A 401-1

Nominal width	DN 40
Discharge head max.	11 m
Installation length	220   250 mm
Flange connection	PN 6/10
Operating pressure max.	10 bar
Media temperature min.	+15°C
Media temperature max.	+95/+110°C *
Ambient temperature	max. 40°C
Net weight	9.0 kg

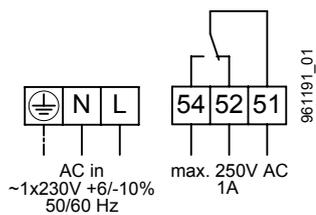
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power $P_1$	8-174 W
Rated current	0.1-1.25 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.10 bar
at 95°C water temperature	0.55 bar
for every ±100 m altitude	±0.01 bar

### Connction diagram



**52, 54, 51** Error or operating message

**L, N, PE** Power supply

### Switch

- 1 Power limiting (can be deactivated)
- 2 Fault or operating message (switchable)

### Included in the scope of delivery

- Heat insulation shell
- Sealing set for flange PN 6

### Accessories

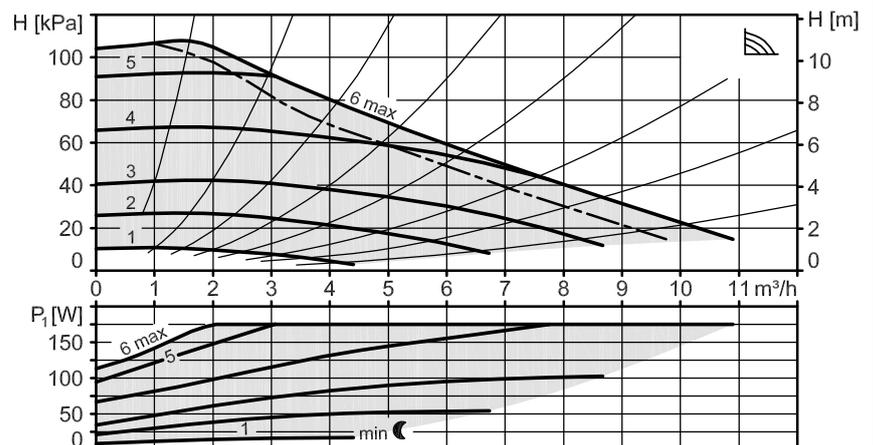
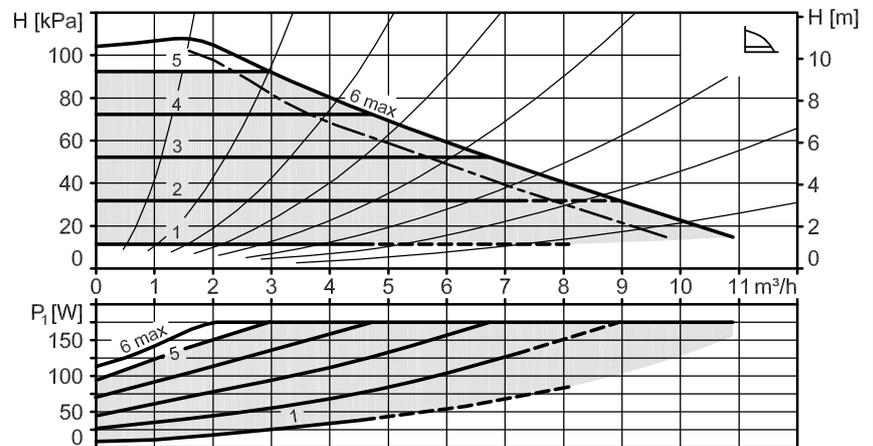
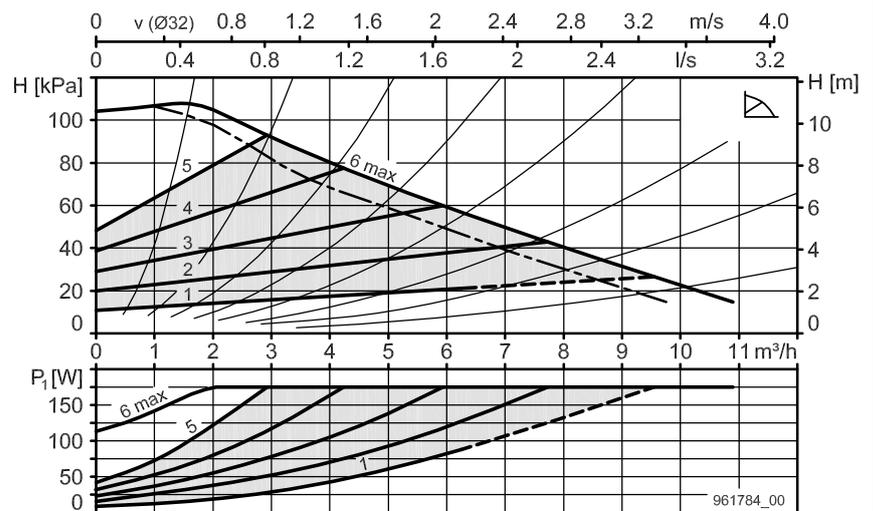
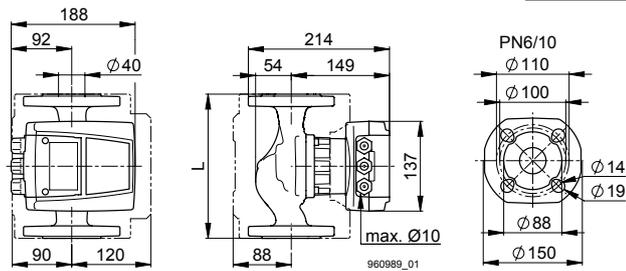
- BIM A signal module
- BIM B control module
- Sealing set for flange PN10 / PN16

### Comments

\* temporarily (ca. 30 min)

Type	Article number Biral
A 401	1157450150
A 401-1	1157460150

A 401	A 401-1
DN 40	DN 40
L = 220 mm	L = 250 mm



## A 500

Nominal width	DN 50
Discharge head max.	11 m
Installation length	220 mm
Flange connection	PN 6/10
Operating pressure max.	10 bar
Media temperature min.	+15°C
Media temperature max.	+95/+110°C *
Ambient temperature	max. 40°C
Net weight	10.5 kg

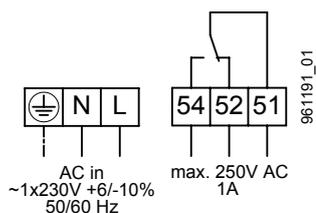
### Electrical data

Voltage	1x230 V
Frequency	50/60 Hz
Power P <sub>1</sub>	8-174 W
Rated current	0.1-1.25 A
Motor protection	integrated

### Required operating pressure at 500m a.s.l.

at 75°C water temperature	0.10 bar
at 95°C water temperature	0.55 bar
for every ±100 m altitude	±0.01 bar

### Connction diagram



**52, 54, 51** Error or operating message

**L, N, PE** Power supply

### Switch

- 1 Power limiting (can be deactivated)
- 2 Fault or operating message (switchable)

### Included in the scope of delivery

- Heat insulation shell
- Sealing set for flange PN 6

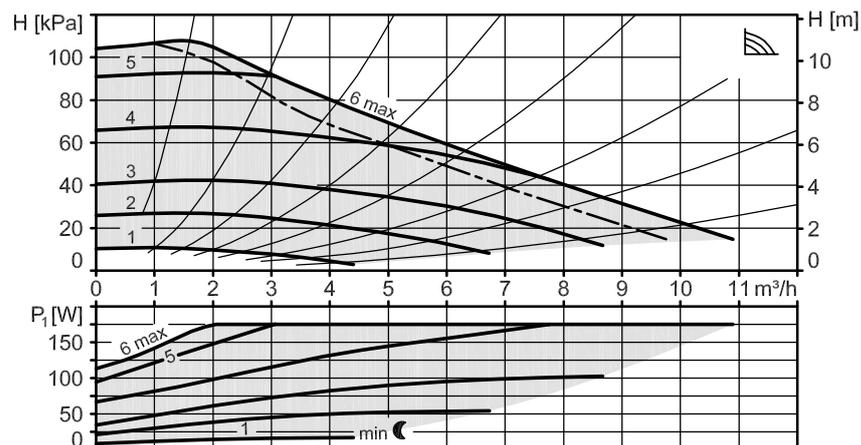
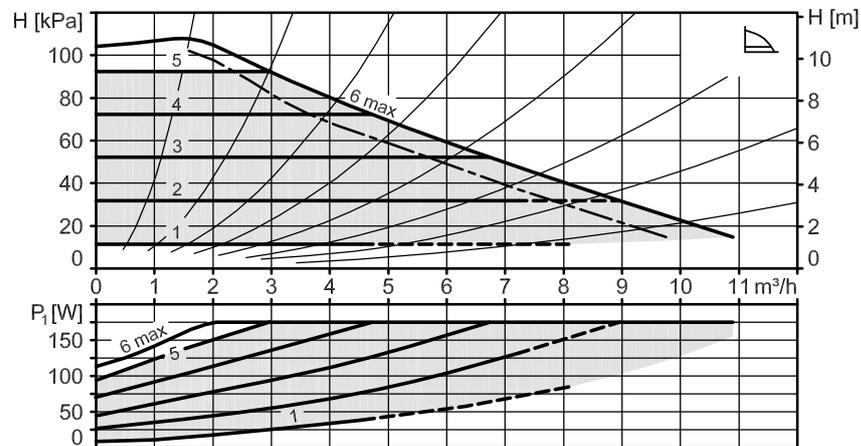
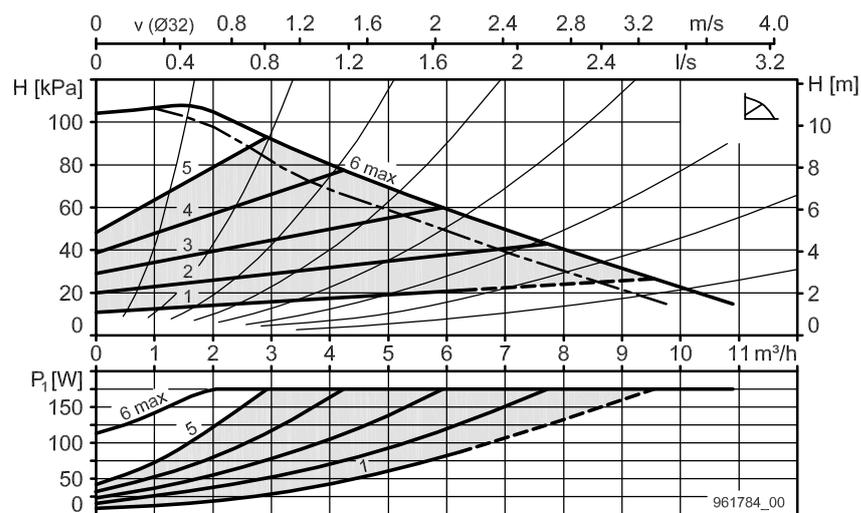
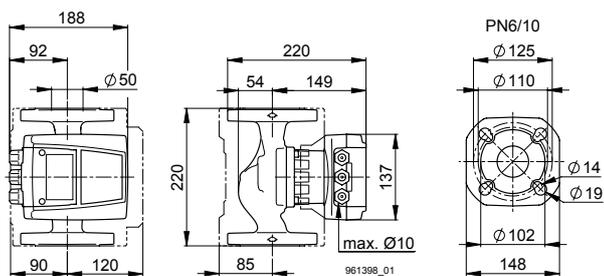
### Accessories

- BIM A signal module
- BIM B control module
- Sealing set for flange PN10 / PN16

### Comments

\* temporarily (ca. 30 min)

<b>Type</b>	<b>Article number Biral</b>
A 500	1161360150





## Heating circulation pumps

### AD 14...AD 401



#### Summary

Type		Nominal width	Discharge head max.	Installation length	Threaded connector	Operating pressure max.	EEl-value
		DN	m	mm		bar	
AD 14-2	1162520150	32	6	180	G 2"	10	≤0.22
AD 15-2	1162530150	32	8	180	G 2"	10	≤0.22

Type		Nominal width	Discharge head max.	Installation length	Flange connection	Operating pressure max.	EEl-value
		DN	m	mm		bar	
AD 401	1157770150	40	11	220	PN 6/10	10	≤0.22

