VivarA – developed for maximum efficiency

Dry-running in-line pumps

Moving people and elements

Biral®

VivarA – cost-effective and simple thanks to IE5 and Bluetooth Connect.

The VivarA

With the new VivarA, Biral offers you another pump which excels in saving energy and economic efficiency, replacing the renowned VariA-E model.

The VivarA brings together the best of two worlds. This model follows the successful ModulA concept and anticipates the simple control concept with Bluetooth Connect to the dry-running in-line pump. This means that it can be easily connected to the Biral ONE app and integrated into any building services control system using separately supplied BIM modules. With the new Bluetooth interface to the Biral ONE app, we were able to multiply the operating and information possibilities compared with the previous pump.

The completely revised pump design meant that the segmentation could be greatly simplified. The permitted media temperature range of **–20 °C to +140 °C** means that the pump is versatile and can be used both for heating (RED) and cooling applications (GREEN). The VivarA is therefore considered an all-in-one pump.

Standard variants and optimally coordinated characteristic curves make it easy to get an overview of the product range. At the same time, the pump remains versatile in its areas of application:

- Heating
- District heating systems
- Cooling
- Industrial cooling
- Industrial applications

The latest generation of synchronous motors takes the entire series to the next level – **efficiency class IE5**. The VivarA therefore surpasses all ErP guidelines for efficiency class IE4.

In-house development

The VivarA is a genuine in-house development by Biral – from engineering to assembly and quality checking.

We are proud of our Swiss production facility, which is an important factor in Biral's success. All of our knowledge of and experience with the VariA's predecessors was incorporated into developing the VivarA pump.

This resulted in a modern in-line pump which is easy to operate and lays the cornerstone for a sustainable future.

Every pump that leaves our plant has been assembled by hand at our state-of-the-art production line and has been subjected to standardised testing. This is how we ensure that each pump complies with Biral's strict quality requirements.

Developed to meet the highest quality requirements.

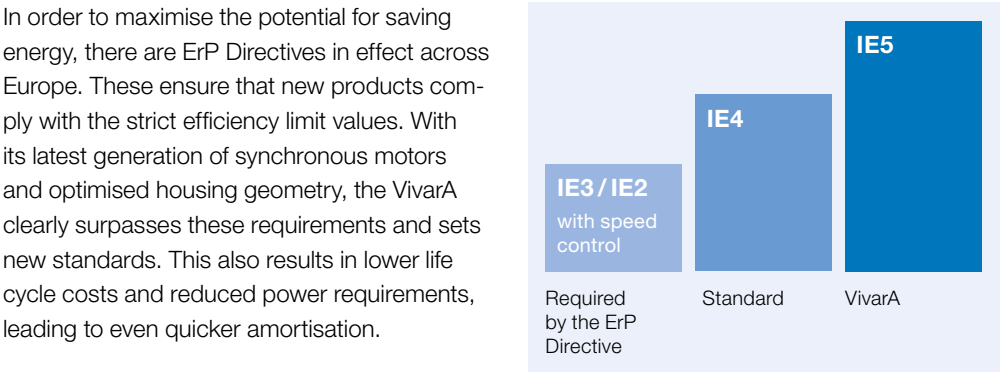
Improved efficiency and sustainability

It has long been good practice to use energy-efficient products in a responsible manner because these products improve environmental performance in the long-term. In addition, saving energy is beneficial to our environment, operators and you.

In order to maximise the potential for saving energy, there are ErP Directives in effect across Europe. These ensure that new products comply with the strict efficiency limit values. With its latest generation of synchronous motors and optimised housing geometry, the VivarA clearly surpasses these requirements and sets new standards. This also results in lower life cycle costs and reduced power requirements, leading to even quicker amortisation.

IE5, our standard

Sustainability is our goal and IE5 is our standard. We don't set an upper limit on what we can achieve and guarantee optimal energy efficiency up to the most powerful VivarA pump, which generates 18.5 kW of power. In addition, all pump sizes meet the requirements of the Minimum Efficiency Index (MEI). This means that all model sizes convey the corresponding volumes of materials.



Amortisation

Using a controlled VivarA really pays off. Thanks to the VivarA's lower power consumption, the operating costs can be substantially reduced when compared with conventional pumps. Customers will amortise a new VivarA pump in under two years.

Intelligent and versatile – the Biral Interface Module

Thanks the Biral Interface Modules, also referred to as "BIM", the VivarA can be easily integrated into any building services control system as the situation requires. It can handle all BUS modules and guarantees users maximum flexibility.

BIM B3 control module

The BIM B3 module can process external specifications in the pump and implement them on a self-regulating basis. It can also be used for alternating or reserve mode.

Control module for

- Self-regulating pumps
- External speed specification*
- Externally specified setting
- Operational or ready message (can be switched)
- Alternating or reserve message (can be switched)

* Retrofitting may be required

BIM Profibus DP

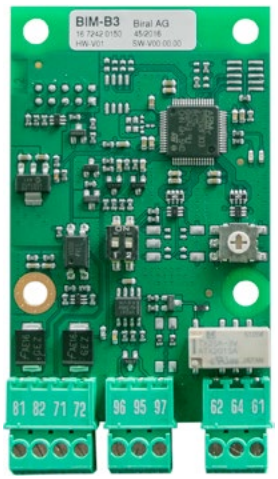
The BIM Profibus module enables data to be exchanged between the VivarA and the control system (SPS, PLC, SCADA) or higher-level controllers. No programming is required in order to integrate the BIM Profibus module into a Profibus network. System integration takes place via GSD files and supports the standard profile for "intelligent pumps" from PROFIBUS & PROFINET International.

BIM ModBus RTU

The BIM Modbus RTU module enables data to be exchanged between the VivarA and the control system (SPS, PLC, SCADA) or higher-level controllers, which opens up a high number of data points. The interface offers uncomplicated system integration, as the Modbus RTU protocol is widely supported by existing control and automation systems. The BIM Modbus RTU module also supports the SattCon COMLI protocol.

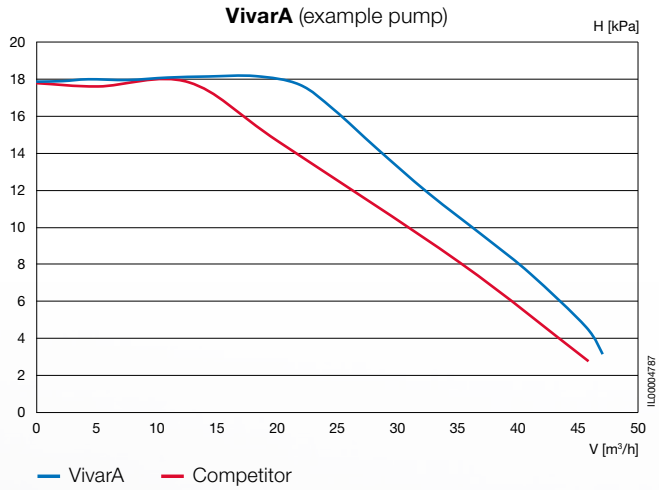
BIM BACnet

The BIM BACnet module enables data to be exchanged between the VivarA and the control system (BA, PLC, BMS) or higher-level controllers. These communication interfaces are based on standard BACnet object types and involve direct data access via the network. The BACnet function profile has been created specially for the exchange of data between pump systems and the building automation.



BIM B3 control module

Convincing qualities



Powerful

Extended power range

The VivarA is used for moderate pump heights and large quantities, which is why we have increased its power range when compared with its predecessor. The characteristic curves have been optimised to make full use of its power potential. Under certain circumstances, this allows a smaller model size to be used.

Connected

Bluetooth Connect

Thanks to the integrated Bluetooth interface, you can easily configure, monitor and analyse the VivarA with your smartphone – without the need for any accessories. That's what we call efficient.

Sustainable

Maximum energy efficiency (IE5)

Thanks to their state-of-the-art synchronous motors and efficient design, all sizes of the VivarA achieve the maximum energy efficiency. This allows you to save money every minute that the pump is in operation and play an active role in achieving a sustainable and balanced environmental performance. In doing so, we are not limited by the legal requirements – we go beyond them.

Durable

Retreaded design

The cathodic dip coating, which is used for the first time in this pump, makes the VivarA more durable and efficient. In addition, the impeller and housing geometry have been even more closely coordinated, which results in only minimal back-flow.

Expanded range

All-in-one

In our endeavour to make everything easier, we were able to merge the segmentation of RED and GREEN. Thanks to the CDP coating and the new floating ring seal, the VivarA is suitable for media temperatures from –20 °C to +140 °C. Any concerns about the correct temperature use are a thing of the past.

	Heating/ ventilation	Air conditioning system/cooling
VariA / VariA-E	**RED** 15 °C to +140 °C	**GREEN** –20 °C to +90 °C
VivarA	**All-in-one** Media temperature range **–20 °C to +140 °C**	

Clear overview

All planning documents at hand

We believe that having clear technical documents is important. Our whole range can be designed on our PumpSelector and can be stored directly in the planning tool thanks to the advanced BIM data. Should you require any further assistance, please do not hesitate to contact our service and consultation teams.

Tried-and-tested

Biral control concept

Operation of the VivarA is simple, as you would expect from Biral, and is based on the existing, simple control concept. We have also made a change to the inside, completely overhauling the setting options and adjusting them to those of the ModulA.

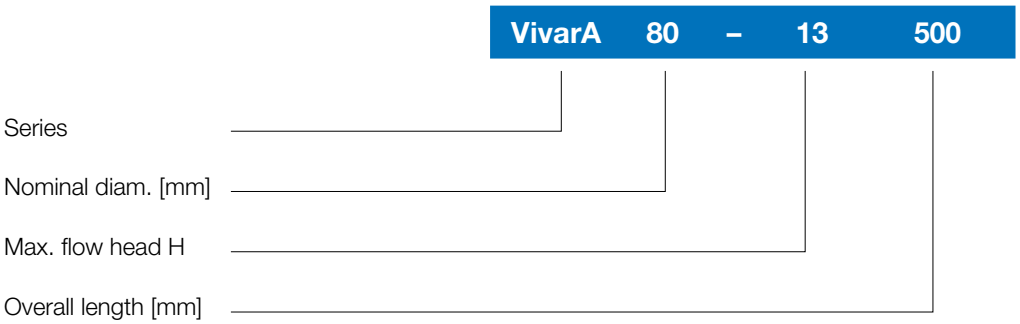
Simple

Plug & Pump

Simply unpack the pump, plug it in and put it into operation – no more time spent tediously connecting the capillary tubes to the sensor or similarly tiresome tasks. The Biral ONE app reliably guides you through commissioning and makes plugging the pump in easy. For instance, this makes positioning the frequency inverter a piece of cake.

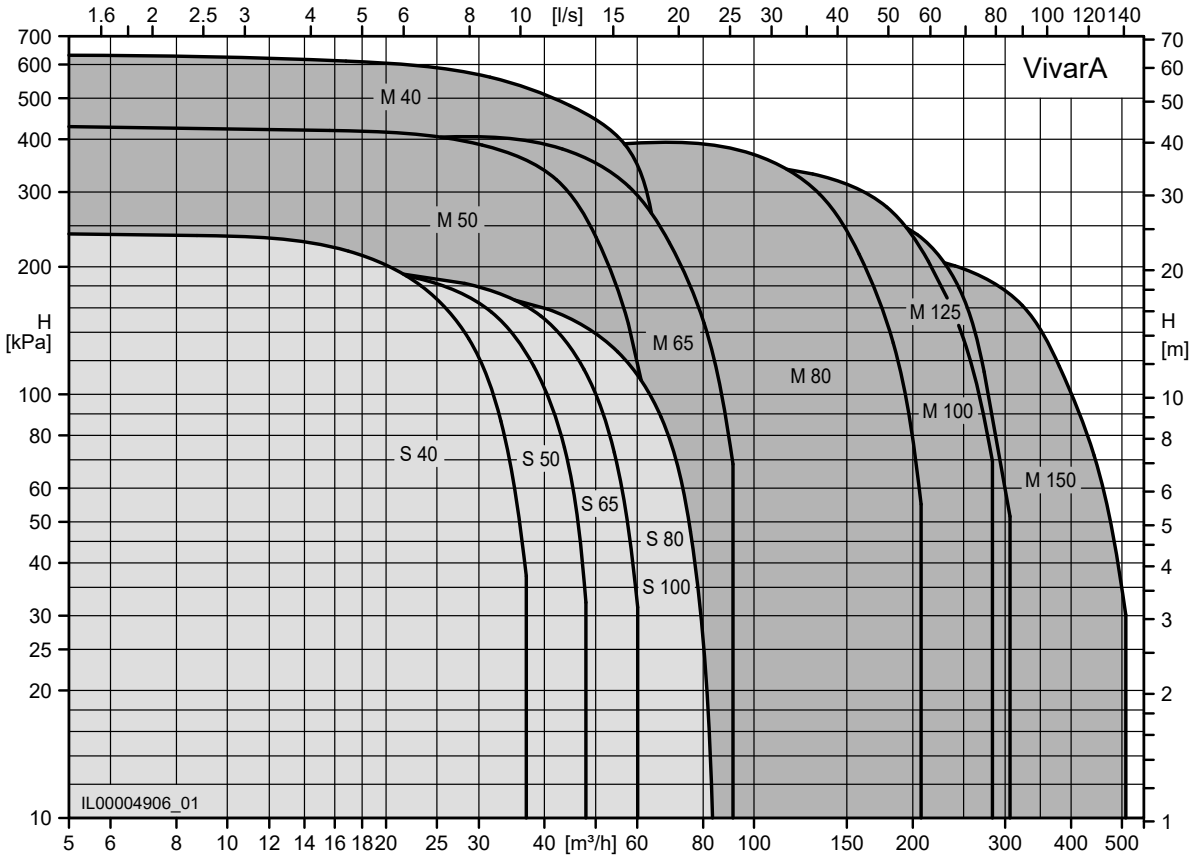
Type designation

The type designation – easy to see, useful for comparison.



Combined graphs

With the VivarA, Biral offers a well-ordered, yet wide range of in-line pumps.
See for yourself!



Technical data

	VivarA S	VivarA M
Hydraulic system data		
Design	In-line	In-line
Nominal diameter	DN 40 to DN 100	DN 40 to DN 150
Max. flow head H	Up to 24 m	Up to 63 m
Installation lengths	250–450 mm	340–800 mm
Nominal pressure	PN 6 to 16	PN 6 to 16
Max. operating pressure	16 bar	16 bar
Media temperature	-20 °C to +140 °C	-20 °C to +140 °C
Ambient temperature	-20 °C to +40 °C	-20 °C to +40 °C
Minimum Efficiency Index (MEI)	≥ 0.7	≥ 0.5–0.7
Electrical data		
Voltage	3 × 400 V	3 × 400 V
Frequency	50 Hz	50 Hz
P1 power input	0.43–2.74 kW	3.23–20.40 KW
P2 power input	0.25–2.2 kW	2.2–18.5 kW
Rated current	0.98–4.44 A	5.16–32.25 A
Rated speed	4000–5900 rpm	1500–3000 rpm
Motor efficiency class	IE5	IE5
Protection class	IP55	IP55
Insulation class as per IEC	F	F
Motor protection	integrated	integrated
Materials		
Pump housing	EN-GJL-250	EN-GJL-250
Floating ring seal	Q7/Q7	Q7/Q7
Impeller	PES GF30	EN-GJL-200
Shaft	1.4301	1.4301
Included in the scope of delivery		
Sealing kit for PN 6 or PN 16 flange incl. screws	•	•
Accessories		
BIM modules	Optional	Optional
Adaptors	Optional	Optional
PN 16 sealing kit	Optional	–

Service and support

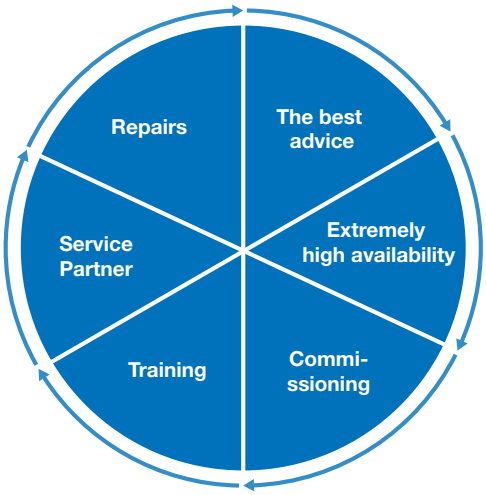
We offer expert advice and personal assistance, from the purchasing discussion and installation to service and support. With Biral, you will have a direct contact and can rely on us never letting you down.

Biral offers a real all-round package of services. We provide support over the entire life cycle, from the initial consultation to installation and service. In addition, our clearly arranged documents will make using the VivarA even easier.

For example, you can use PumpSelector to determine the optimal pump for you and incorporate its BIM data into your CAD drawings.

Support

You can count on our support. Your personal contact will attend to you throughout the entire service life of a pump system and be available to provide expert answers to whatever questions you may have.



Service

Our service partners are always there for you with their competent service and support.

Services and tools

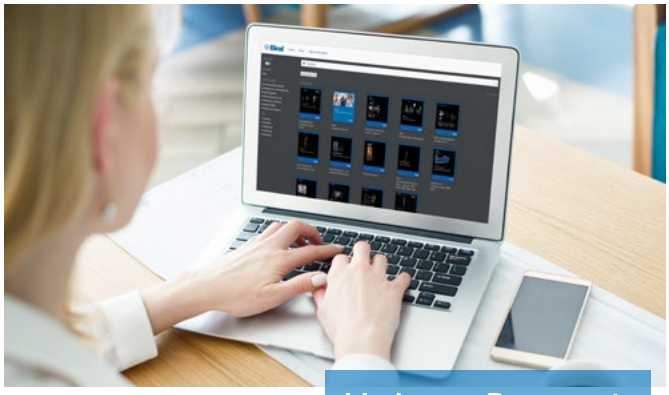
biral.eu › Campus

Biral Campus

A competence centre for education and training, and an opportunity to experience the world of innovative pump technology. The sector is meeting here for lively and inspiring exchange. Visit us.

eDocuments

eDocuments give you quick and easy access to catalogues, data sheets and manuals.



biral.eu › eDocuments

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Selector

Use our planning tool to achieve your goals efficiently and directly.

PumpSelector – find the right pump quickly

Biral ONE app

The digital co-worker, which is operational at all times, connects you to Biral products and provides you with the right information.

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