



GRUNDFOS
ALPHA2

0.4 W

AUTO
ADAPT

NEW ALPHA2

Redefining reliability and efficiency
Full range of Professional Class circulator pumps for
heating, air-conditioning and cooling

MORE RELIABLE. MORE EFFICIENT

Solid innovation

The new ALPHA2 is a groundbreaking new pump – but it is based on the world-famous Grundfos reliability. With 60 years of experience and than 3 million ALPHA2 pumps in the field, we are in a unique position to continue a proud history of high-quality products that exceed legislative standards and customer expectations. The new ALPHA2 uses proven technology from previous models and has been fine-tuned from the outside in to offer supreme reliability in a high-efficiency circulator pump.

Anti-corrosive pump housing

Cataphoresis surface treatment of the pump housing is standard with the new ALPHA2. This provides the ultimate corrosion-resistance and makes the new ALPHA2 fit for real cold water applications.

Ceramic shaft and bearings

The ceramic shaft and bearings in the new ALPHA2 minimize friction and are guaranteed to increase the pump's service life.

Efficiency from the future

Grundfos supports and encourages strict legislative demands for pump efficiency as part of our ongoing work to decrease energy bills and increase sustainability. And we are proud to say that the new ALPHA2 – like its predecessors – is way ahead of its time.

The EuP legislation requires all circulator pumps to have an Energy Efficiency Index (EEI) below 0.23 in 2015. The new ALPHA2 is way ahead of these common standards, which is why it has earned its place in the Grundfos Blueflux® family of highly energy efficient products.

Energy savings

With improved neodymium magnet motor technology and advanced hydraulics, the new ALPHA2 includes an EEI of just 0.15 and provides energy savings and comfort levels straight from the future.

Grundfos Blueflux® is your guarantee

The Grundfos Blueflux® label is your guarantee that the new ALPHA2 is equipped with the most energy-efficient motor currently available in the well-known high Grundfos reliability and high degree of recyclability.



NEW ALPHA2 DOES IT ALL

THE NEW ALPHA2 IS NOT JUST MORE EFFICIENT AND RELIABLE THAN EVER BEFORE – IT IS ALSO MORE VERSATILE

We have made a few crucial design changes that allow you to use the new ALPHA2 in cooling applications with pumped liquid temperatures down to +2°C.

This means that the new ALPHA2 will not only cover your heating demands, but also up to 90% of your air-conditioning and cooling demands. So from now on, it makes no difference whether you are looking for the perfect heating or cooling circulator. They are both the same – new ALPHA2.

The simple choice

The ALPHA pump range has always been one of the easiest pump ranges to work with – and with the new ALPHA2 everything is even easier:

- Better performance with market leading efficiency ($EEL \leq 0.15$) in a more compact design
- New flow meter just for information, trouble shooting or balancing
- AUTOADAPT selects best regulation curve for efficiency and comfort
- Innovative plug simplifies pump connection
- Insulation shells included



MORE USER FRIENDLY

Use the intuitive display to select one of the four ALPHA2 control modes: Constant pressure, proportional pressure, constant speed and the factory setting: AUTOADAPT. Each control mode has three variants, giving you a total of 10 control mode settings to choose from for maximum flexibility and energy-efficiency. We still recommend leaving the pump in autoadapt for 80% of the system configurations.

Easy operation

Intuitive one-touch operation makes selecting any control mode simple. Settings are automatically remembered.

Proportional pressure



Constant pressure



Constant speed



AUTOADAPT

10X



Night-setback

If enabled the Night-Setback function in the new ALPHA2 automatically reduces the motor speed when the system temperature drops in order to save energy.



Power/Flow

With the Power/Flow functionality the new ALPHA2 can display its energy consumption in either W or the flow in m^3/h .



NEW ALPHA2 – MORE OF EVERYTHING

The new ALPHA2 gives you all the benefits of the renowned Grundfos ALPHA pump – reliability, efficiency, simplicity etc. – but we have fine-tuned the pump to give you more of everything.

The exploded view shows all the new ALPHA2 features and improvements compared to previous ALPHA models. Every new feature provides a new unique benefit to the user of the pump.



Insulation shells
Insulation shells are now standard, which eases installation and decreases installation costs.

Resistant to corrosion and condensation
With cataphoresis surface coating and improved condensation resistance, the new ALPHA2 will pump media down to +2°C at any ambient temperature and humidity.

Ceramic bearings
The proven ceramic bearing technology used in other Grundfos products has been adapted to the new ALPHA2.

Compact design
The new ALPHA2 gives you the performance you are used to in a more compact design that will fit into even tighter working spaces.

New motor design
The new ALPHA2 motor has been redesigned in order to increase electrical efficiency even further.

Improved hydraulics
New and advanced hydraulics transforms motor rotation into water flow more efficiently. This improves the pump's overall EEI.

Built-in flow meter
The built-in flow meter makes heating system trouble-shooting and balancing much easier.

AUTOADAPT
The intelligent AUTOADAPT control mode automatically adjusts to system demands and selects the best proportional pressure pump curve.

The default AUTOADAPT setting is the best choice for 80% of all systems.

New plug design
The redesigned new ALPHA2 plug ensures even quicker and easier installation.

AUTOADAPT

DEVELOPED AND PATENTED BY GRUNDFOS, THE AUTOADAPT TECHNOLOGY MAKES INSTALLATION EASY, FLAWLESS AND ALWAYS OPTIMAL

This innovative control mode fully utilizes the benefits of electronic speed control and makes the new ALPHA2 even easier to install.

What does AUTOADAPT do?

- Makes pump installation as simple as pressing a button
- Analyzes system demand and adapts pump performance – all by itself
- Achieves the ultimate comfort levels with the lowest possible energy consumption

Proven technology

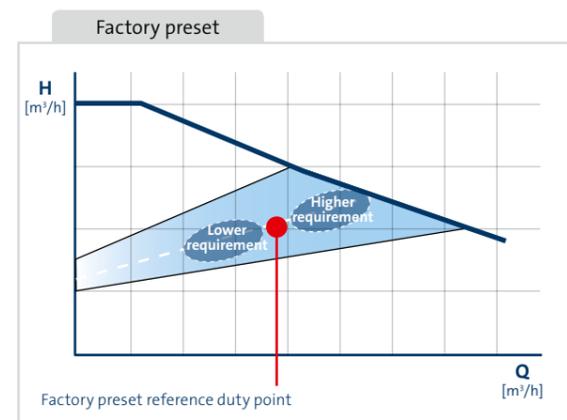
The AUTOADAPT in the new ALPHA2 builds on the field proven AUTOADAPT in earlier generations of the ALPHA. The default AUTOADAPT setting is the perfect choice for more than 80% of all systems.

How does it work?

A new ALPHA2 running on AUTOADAPT will continuously search for the lowest possible head to meet system requirements and find the setting that provides optimal comfort with minimal energy consumption.

Reference settings

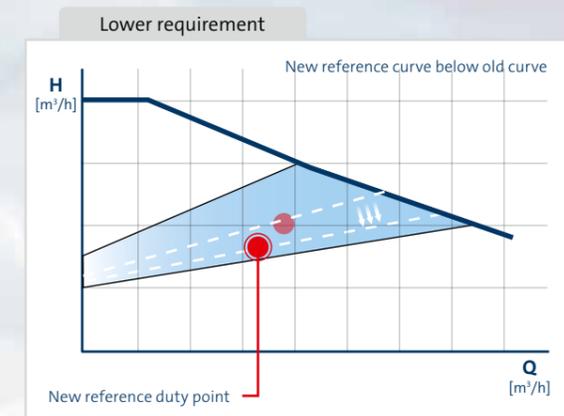
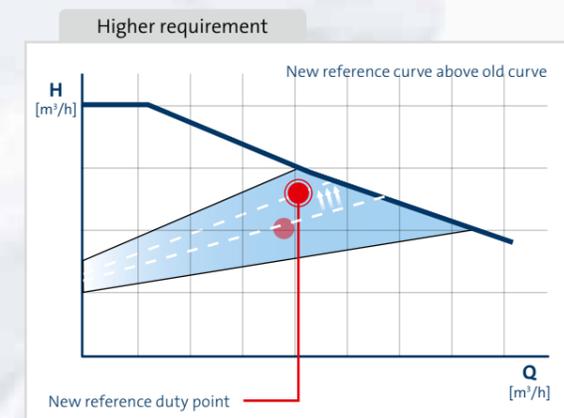
Set to AUTOADAPT, new ALPHA2 starts at a factory preset reference duty point on a proportional pressure reference curve in the center of the AUTOADAPT regulation area. From this point, the pump will immediately start to analyze heating patterns.



If the system duty point deviates from the reference duty point over time, the pump will automatically adjust its performance. In other words, the pump will select a higher proportional pressure curve if system demand exceeds the reference duty point, and a lower curve if the reference duty point exceeds system demand.

New reference setting

Having selected the proportional pressure curve that best fits system demand, AUTOADAPT will also automatically set a new reference duty point. From here, the process starts all over again to ensure that AUTOADAPT always adapts to heating pattern changes.



Regulation intervals

Changes to the reference duty point and proportional pressure curve are based on an analysis of the heating pattern over a couple of days. Immediate fluctuations in demand are covered by proportional pressure regulation.

What's the big deal?

AUTOADAPT has truly innovated the small circulator market. The savings potential of the new ALPHA2 is massive and is one of the top reasons why it is such a popular product with installers and end-users.

Installer assistance

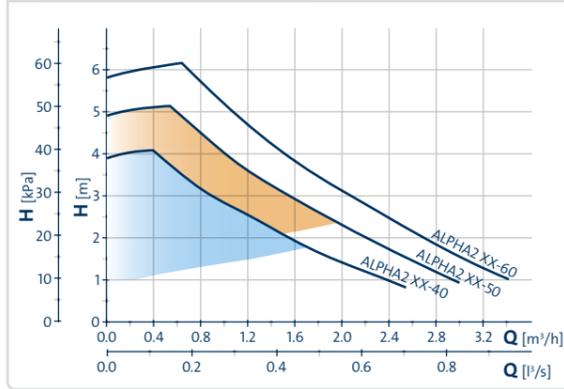
Most installers lack the time to identify the specific details of the heating systems in which they install circulator pumps.

The new ALPHA2 makes it possible to simply install the pump, select AUTOADAPT and move on, knowing that the pump will adapt to system demands and select the optimal setting all by itself.

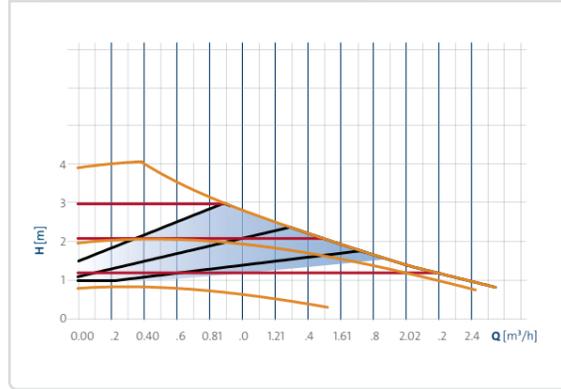
End users

End-users want a reliable pump that provides the ultimate comfort at the lowest possible cost to themselves and the environment. With its supreme energy-efficiency and built-in intelligence, the new ALPHA2 does exactly that – better than ever before.

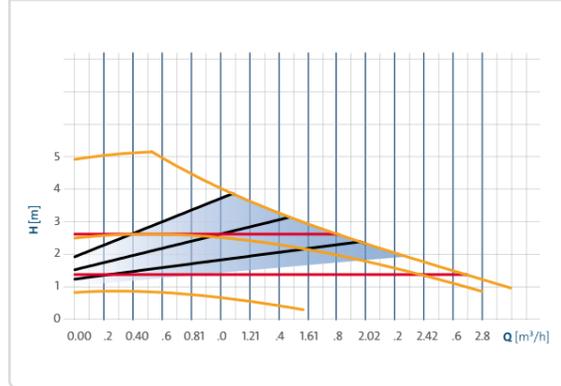
Grundfos New ALPHA2



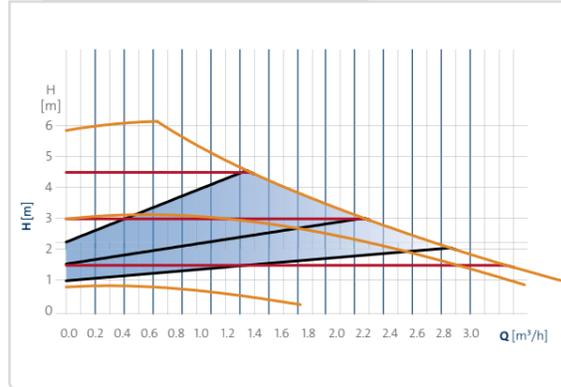
New ALPHA2 XX-40, 230V, 60°C



New ALPHA2 XX-50, 230V, 60°C

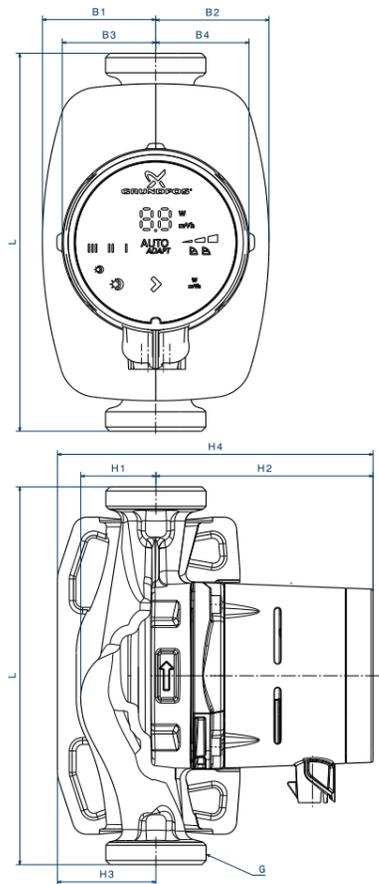


New ALPHA2 XX-60, 230V, 60°C



- AUTOADAPT area
- Constant pressure (CP) curves
- Proportional pressure (PP) curves
- Fixed speed 1-2-3

Dimensions



Pump type	L	B1	B2	B3	B4	H1	H2	H3	H4	G
DN15	130	54	54	44.5	44.5	35.8	103.5	47	150.5	1
DN25	130	54	54	44.5	44.5	35.8	103.5	47	150.5	1½
DN25	180	54	54	44.5	44.5	35.9	103.5	47	150.5	1½
DN32	180	54	54	44.5	44.5	35.9	103.5	47	150.5	2
DN25 N	130	54	54	44.5	44.5	36.8	103.5	47	150.5	1½
DN25 N	180	54	54	44.5	44.5	36.9	103.5	47	150.5	1½
DN32 N	180	54	54	44.5	44.5	36.9	103.5	47	150.5	2
DN25 A	180	63.5	98	32	63	50	124	81	205	1½

Technical data

Supply voltage:	1x230V+/-10%	Low Voltage Directive (2006/95/EC):	Standard used: EN 60335-2-51: 2003
Frequency:	50/60 Hz	EMC Directive (2004/108/EC):	Standard used: EN 55014-1: 2006 and EN55014-2: 1997
Enclosure class:	IPX4D	Ecodesign Directive (2009/125/EC):	Standard used: EN 16297-1: 2012 and EN 16297-2:2012
Insulation class:	F	Sound pressure level:	Lower than 43dB(A)
Relatively humidity:	Max. 95%	Input power:	Min 3W, Max 22-34W
Ambient temperature:	0°C to +40°C	Built in heights:	130, 180 mm
Liquid temperature:	+2°C to +110°C	Pump housing materials:	Cast iron / Stainless steel
Temperature class:	TF 110 in relation to CEN 335-2-51		
System pressure:	Max. 1.0 MPa, 10 bar, 102 mVS.		
Inlet pressure:	+75°C 0,005 MPa, 0.05 bar, 0.5 mVS +90°C 0,028 MPa, 0.28 bar, 2.8 mVS +110°C 0,108 MPa, 1.08 bar, 10.8 mVS		

Easy selection

HOUSE m²	Radiator system Δt 20° m³/h	Pump type	Floor heating Δt 5° m³/h	Pump type
80-120	0.4	New ALPHA2 XX-40 UK: New ALPHA2 XX-50	1.5	New ALPHA2 XX-40 UK: New ALPHA2 XX-50
120-160	0.5	New ALPHA2 XX-60 UK: New ALPHA2 XX-50	2.5	New ALPHA2 XX-60 UK: New ALPHA2 XX-50
160-200	0.6	New ALPHA2 XX-60	2.5	New ALPHA2 XX-60

Application overview

Application	Pump type		
	New ALPHA2	New ALPHA2 N	New ALPHA2 Airvent
One-pipe systems	X		X
Two-pipe systems	X		X
Under-floor heating	X	X	X
Hot water recirculation		X	
Solar thermal systems	X	X	X
Boilers with external pump	X		X



New ALPHA2

The improved new ALPHA2 small circulator offers unrivalled energy efficiency based on proven Grundfos technologies and is the perfect choice for heating, air-conditioning and cooling applications with pumped media temperatures down to +2°C.

The full Grundfos product range covers all building application areas:

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