

ALPHA2

HYDRONIC BALANCING MADE EASY – YOUR LIFE MADE EASIER

THE **NEW ALPHA2** REDEFINES WHAT A SMALL DOMESTIC CIRCULATOR CAN DO. THE BUILT-IN ONE-WAY COMMUNICATION CAPABILITIES OF THE NEW ALPHA2 MEANS **QUICK AND EASY HYDRONIC BALANCING** OF RADIATORS AT HOME. THIS BENEFITS INSTALLERS AND HOMEOWNERS ALIKE AND CAN GENERATE SIGNIFICANT SAVINGS ON THE HEATING BILL.

The ALPHA Reader is an add-on to the new ALPHA2 that uses a light sensor to read out data communication from the pump for sending to a smartphone or tablet.

With the Grundfos GO Balance app installed, you get real time calculations of the flow required through your radiator and underfloor heating systems. The user is guided step-by-step through the whole process for hydronic balancing of all radiators and underfloor heating zones in the home. In addition, ALPHA2 offers lasting reliability without blockages even in the toughest systems and best-in-class efficiency.*

In addition, the ALPHA2 offers you:

- **No blockage** – smooth operation reduces the need for emergency service visits
- **No dry-running** – built-in active protection ensures the pump only runs when there's water in the pump housing, for long pump life and extreme reliability
- **Self-adjustable** – AUTOADAPT automatically finds the best pump setting to maximise both comfort and efficiency
- **Market-leading efficiency** – most energy efficient circulator in its class according to VDE*

*The test has been commissioned by and paid for by Grundfos Holding A/S. Test results can be found on <http://www.grundfos.com/products/find-product/ALPHA2.html#brochures>



ALPHA2 IN MORE DETAIL

Resistant to corrosion and condensation

Cataphoresis surface coating and improved condensation ability allow the ALPHA2 to pump media down to +2° C at any ambient temperature and humidity.



Easy installation
The ALPHA plug makes installation quick and easy, just as the insulation shells, minimising heat loss, are easily mounted.

Magnetite resistance
Ceramic shaft ensures resistance to magnetic particles in the pumped liquid to prevent deposits in critical areas of the pump.

Unrivalled energy efficiency
According to VDE tests the ALPHA2 is the most energy efficient circulator on the market – thanks to advanced motor and hydraulics.

Robust start-up
Even after longer standstills the pump will resume activity effortlessly. In case of a blocked rotor the pump will vibrate on start-up and break up any dirt deposits.

Summer mode
Allows the ALPHA2 run optimally during summer to protect the pump and system components.

AUTOADAPT functionality
The intelligent AUTOADAPT functionality automatically selects the best duty point for a 2-string radiator system to facilitate commissioning.

ALPHA Reader
The ALPHA Reader is an add-on to the new ALPHA2 that uses a light sensor to read out data communication from the pump for sending to a smartphone or tablet.

Range		Performance range			
Housing Material	Port-to-port dimension mm	4 meter	5 meter	6 meter	8 meter
Cast iron	130	x	x	x	
	180	x	x	x	x
Stainless steel	130	x	x	x	
	180	x	x	x	x
Airvent cast iron	130	x	x	x	
	180	x	x	x	

Available in all thread sizes.
Contact local wholesaler for specialty pumps.

Technical data	
Flow rate, Q_{max} :	3.8 m ³ /h
Pumped Liquid Temperature:	+2°C - +110°C
Sound Pressure Level:	≤43 dB(A)
Ambient temperature:	0°C to +40°C
Energy Efficiency Index:	EEL≤0.15 (4 meter pump)

Install the GO Balance app

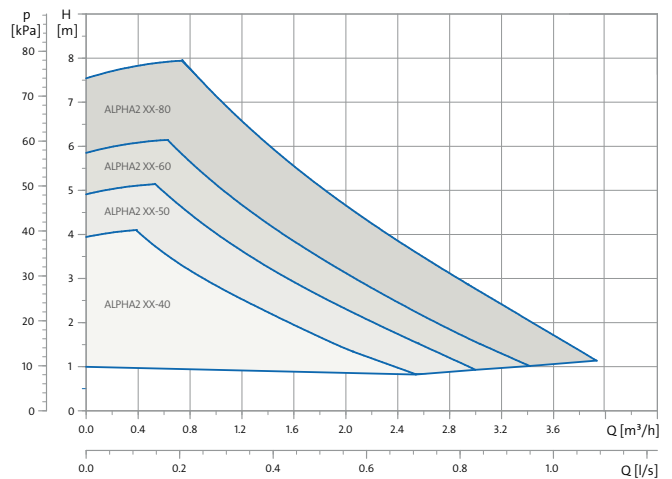
Easy installation

Install the Grundfos GO Balance app installed on your phone or tablet and get access to full hydronic balancing with data from Grundfos ALPHA2 pumps.

Grundfos GO Balance is the only mobile platform for hydronic balancing on the market and is designed to save valuable time on hydronic balancing, reporting.



Performance curve



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GRUNDFOS
ALPHA2

0.4 W
m³

**AUTO
ADAPT**

NEW ALPHA2

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

be
think
innovate

GRUNDFOS 

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.

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.

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.

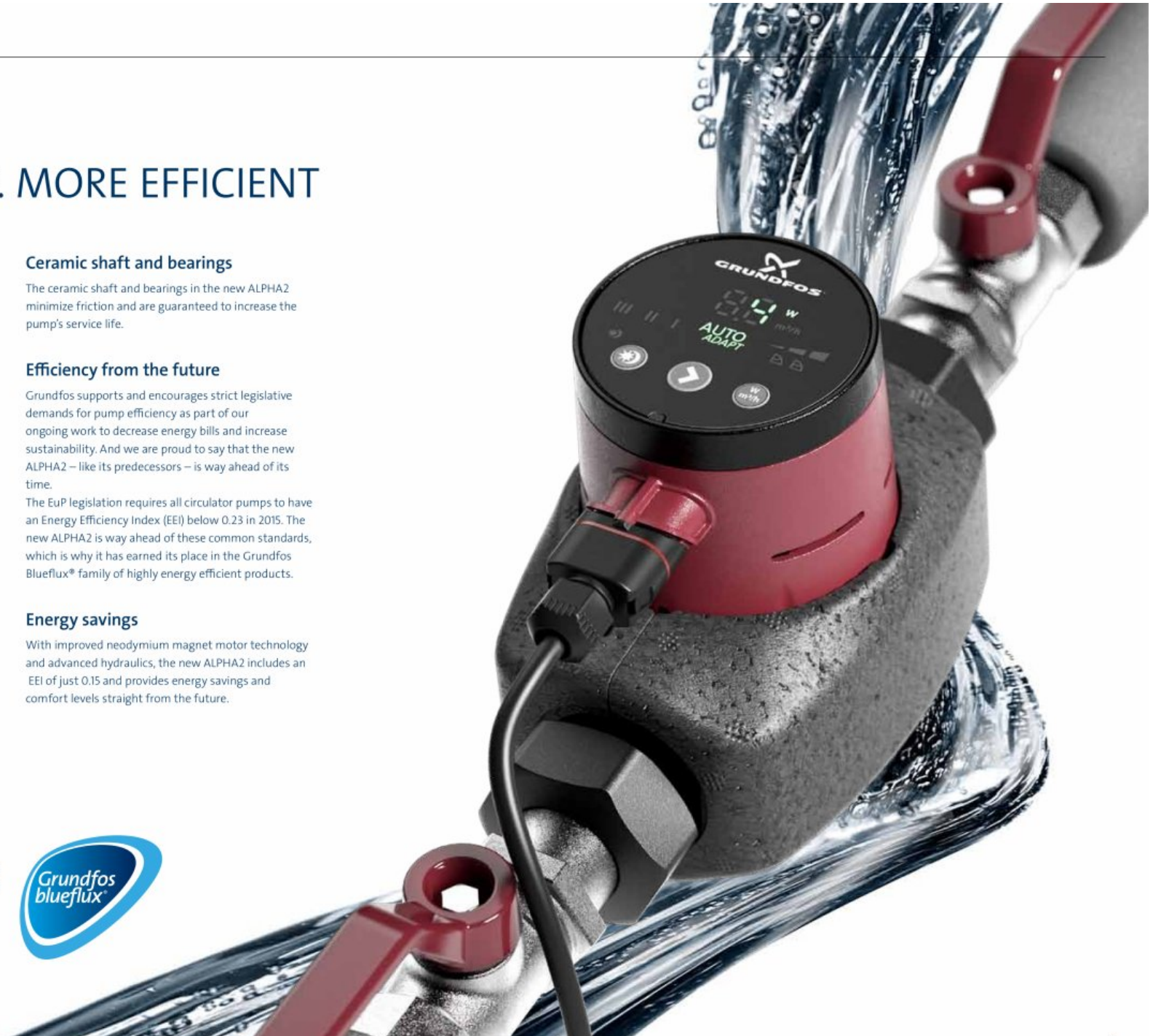
Efficiency from the future

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.



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 (EELs<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

10 X



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

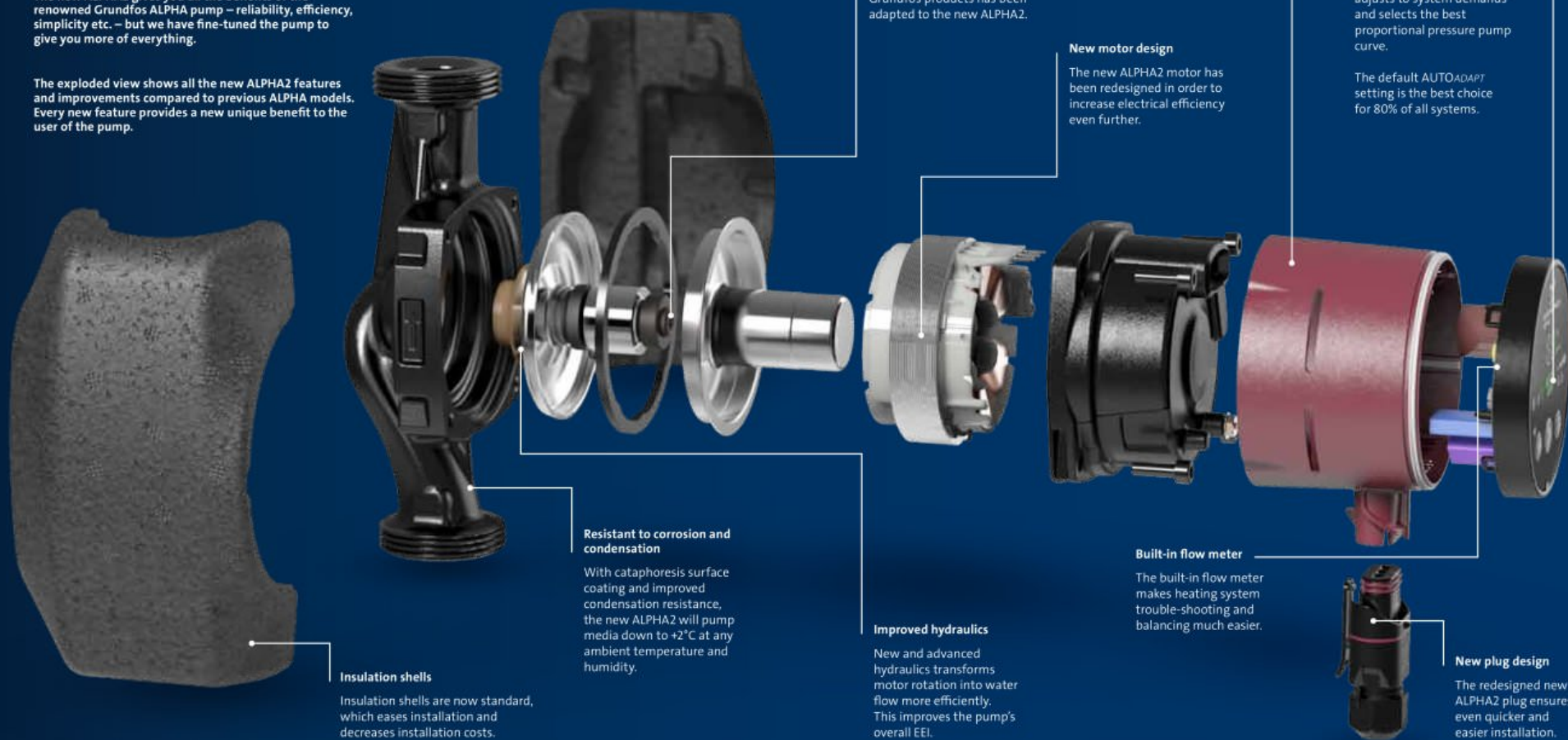
With the Power/Flow functionality the new ALPHA2 can display its energy consumption in either W or the flow in m³/h.



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.

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

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.

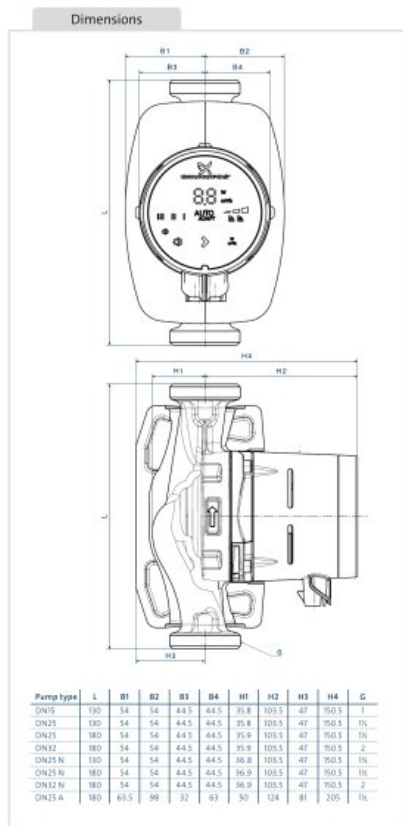
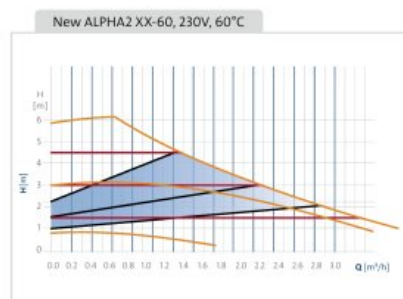
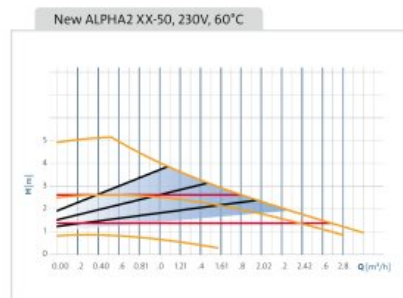
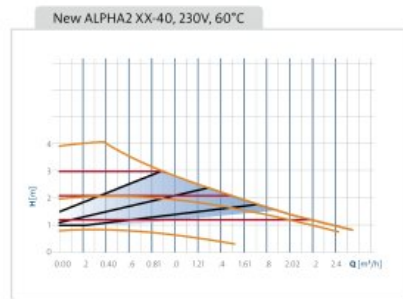
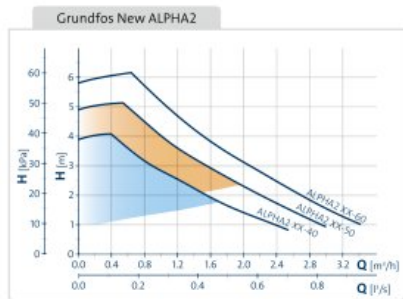
Built-in flow meter
The built-in flow meter makes heating system trouble-shooting and balancing much easier.

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.

ALPHA2 – TECHNICAL DATA



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



Technical data

Supply voltage:	1x230V±10% Frequency: 50/60 Hz	Low Voltage Directive (2006/95/EC):	Standard used: EN 60335-2-51: 2003
Enclosure class:	IPX4D	EMC Directive (2004/108/EC):	Standard used: EN 55014-1: 2006 and EN55014-2: 1997
Insulation class:	F	Ecodesign Directive (2009/125/EC):	Standard used: EN 16297-1: 2012 and EN 16297-2: 2012
Relatively humidity:	Max. 95%	Sound pressure level:	Lower than 43dB(A)
Ambient temperature:	0°C to +40°C	Input power:	Min 3W, Max 22-34W
Liquid temperature:	+2°C to +110°C	Built in heights:	130, 180 mm
Temperature class:	TF 110 in relation to CEN 335-2-51	Pump housing materials:	Cast iron / Stainless steel
System pressure:	Max. 1.0 MPa, 10 bar, 102 mV5.		
Inlet pressure:	+75°C 0,005 MPa, 0,05 bar, 0,5 mV5 +90°C 0,028 MPa, 0,28 bar, 2,8 mV5 +110°C 0,108 MPa, 1,08 bar, 10,8 mV5		

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 Airtent
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