

# ALPHA, UPSe

Pumps and accessories



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## 1. Product data

### Product introduction



TM074132

Top row: UPSe 15-58, ALPHA 15-58. Bottom row: ALPHA1 26-99, ALPHA2 26-99.

Grundfos circulators are small- and medium-sized, speed-controlled, high-efficiency pumps fitted with an electronically commutated motor with permanent-magnet rotor and variable frequency drive.

A magnetite-resistant design, robust ceramic shaft, and stainless-steel bearing plate ensure that the pump delivers the optimal system performance at the lowest possible energy consumption reliably throughout the years.

UPSe, ALPHA and ALPHA2 feature eight different control modes, designed for certain applications. ALPHA and ALPHA2 also feature AUTOADAPT. The AUTOADAPT function continuously adjusts the pump performance to the actual heat demand, i.e. the size of the system and the changing heat demand during the year. The function will find the setting that provides optimal comfort with minimal energy consumption. It contributes to fast, safe and easy installation.

All UPSe and ALPHA circulators are equipped with a conduit box for easy installation of the power cable.

#### UPSe 15-58

UPSe is designed for circulating liquids in systems with variable flow rates where it is desirable to optimise the setting of the pump duty point to reduce costs. The one-button operation and LED display makes the selection of the settings easy.

#### ALPHA 15-58

ALPHA is an advanced pump featuring:

- LED display showing current power consumption and flow rate
- Constant flow setpoint
- AUTOADAPT setpoint
- Grundfos GO app connectivity via Bluetooth.

The Grundfos GO app gives you control over the ALPHA pump as well as step-by-step assistance with pump configuration, maintenance, and setup, including:

- operating and control modes
- scheduling for when the pump should operate
- pump venting process
- warning and alarm status.

#### ALPHA2 26-99

ALPHA2 26-99 is a medium sized pump and designed for circulating liquids in large circuits.

#### ALPHA1 26-99

ALPHA1 26-99 is a medium sized pump designed for circulating liquids in large circuits. It can only be remote-controlled via a low-voltage 0-10 VDC signal by a system controller integrated into a boiler or a building management system. The pump requires a 0-10 V signal on the signal port to control the speed of the pump. The pump will run at its maximum speed if no signal is present or the signal fails.

#### Related information

2. [UPSe 15-58](#)
3. [ALPHA 15-58](#)
4. [ALPHA1 26-99](#)
5. [ALPHA2 26-99](#)

## Applications

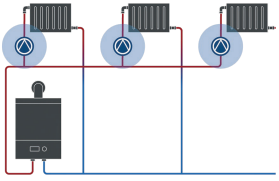
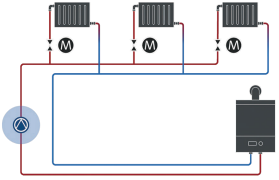
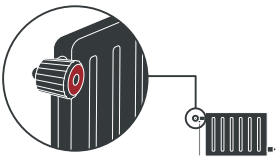
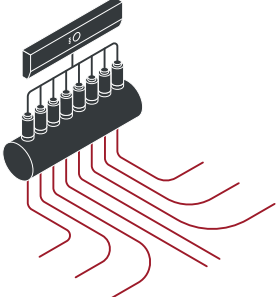
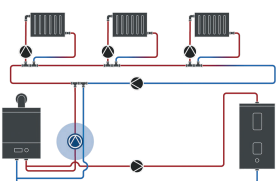
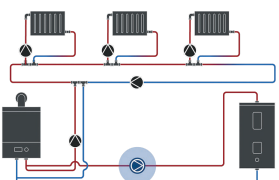
Grundfos circulators are designed for domestic building applications such as:

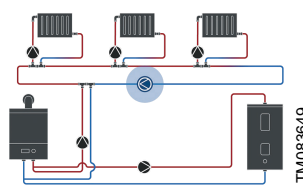
- heating systems
- hot water recirculation (ALPHA2 26-99 SU)
- air conditioning and cooling systems.

We recommend UPSe and ALPHA for the applications below.

- zone pump circuits
- zone valve systems
- radiator heating circuits with thermostatic radiator valves (TRV)
- boiler pumps
- tank pumps
- radiator heating circuits with thermostatic radiator valves or TRVs.

## Settings according to system type

System	Recommended control mode
 <p>TM083013</p>	Constant curve (zone pump) ALPHA 15-58: Constant flow if you know the design flow of the system.
 <p>TM083012</p>	Constant pressure (zone valve)
 <p>TM083015</p>	Proportional pressure (TRV)
 <p>TM083014</p>	Constant pressure (zone valve)
 <p>TM083016</p>	Constant curve (zone pump) ALPHA 15-58: Constant flow if you know the design flow of the system.
 <p>TM083017</p>	Constant curve (zone pump) ALPHA 15-58: Constant flow if you know the design flow of the system.

System	Recommended control mode
<p data-bbox="138 199 267 231">Primary pump</p> 	<p data-bbox="462 283 776 357">Constant curve (zone pump) ALPHA 15-58: Constant flow if you know the design flow of the system.</p>

## Features

Categories	Feature	UPSe 15-58	ALPHA 15-58	ALPHA1 26-99	ALPHA2 26-99
Applications	Heating and cooling systems	✓	✓	✓	✓
	Hot water recirculation	-	-	-	✓ <sup>1)</sup>
	Max. head [ft (m)]	19 (5.8)	19 (5.8)	42 (12.8)	42 (12.8)
	Max. flow rate [gpm (m <sup>3</sup> /h)]	13.6 (3.2)	13.6 (3.2)	26 (5.9)	26 (5.9)
	Replaces more than 30 other pump models	✓	✓	-	-
Design features	Energy-efficient permanent-magnet motor	✓	✓	✓	✓
	Integrated check valve	✓	✓	✓	✓ <sup>2)</sup>
	Plug connection	✓	✓	-	-
	Line cord connection	-	✓	-	-
	Terminal box connection	-	-	✓	✓
	1 1/2" BSP (union) connection	-	-	-	✓ <sup>2)</sup>
	Nut captures for flanges	✓	✓	-	-
	Magnetite-resistant design helps prevent deposits and blockages with a robust ceramic shaft, ceramic bearing rings and stainless-steel bearing plate	✓	✓	✓	✓
	Cataphoretic coating of cast iron housing	✓	✓	✓	✓
	Constant-speed setpoints	✓	✓	✓ <sup>3)</sup>	-
Control modes	Constant-pressure setpoints	✓	✓	-	✓
	Proportional-pressure setpoints	✓	✓	-	✓
	AUTOADAPT setting	-	✓	-	✓
	Constant flow	-	✓	-	-
	External speed control via low voltage 0-10 VDC signal	-	-	✓	-
Support features	Grundfos GO connectivity	-	✓	-	-
	Guided setup	-	-	-	-
	Operation scheduling	-	✓	-	-
	Simple operating panel	✓	✓	-	✓
	Capacitive touch user interface	-	✓	-	-
	LED display shows current energy consumption and estimated flow rate	-	✓	-	-
	Dry-running protection	✓	✓	-	-
Preventative features	System air detection and automatic venting	-	✓	-	-
	The robust startup feature enables the pump to continuously attempt to restart in blocked rotor conditions	✓	✓	-	-

1) ALPHA2 26-99 SU version with stainless steel housing.

2) ALPLHA2 26-99F can have the check valve. ALPHA2 26-99SU cannot.

3) ALPHA1 26-99F runs at its maximum speed if no VDC signal is present.

## Control modes

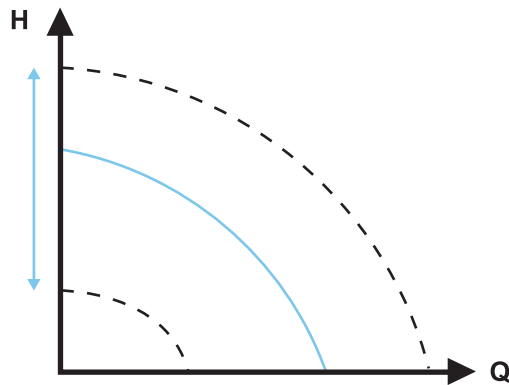
### Constant curve (zone pump)

This control mode is available for the following products:

- UPSe 15-58
- ALPHA 15-58
- ALPHA1 26-99<sup>4)</sup>.

<sup>4)</sup> ALPHA1 26-99F runs at its maximum speed if no external signal is present.

In the constant-curve (zone pump) mode, the pump runs at a constant curve, which means that it runs at constant speed or power. The pump performance follows the selected constant curve. This control mode is especially suitable in applications where the characteristics of the heating system are steady, and the emitters require a constant flow. The selection of the constant-curve setting depends on the characteristics of the heating system and the actual required flow and heat demand.



Constant curve

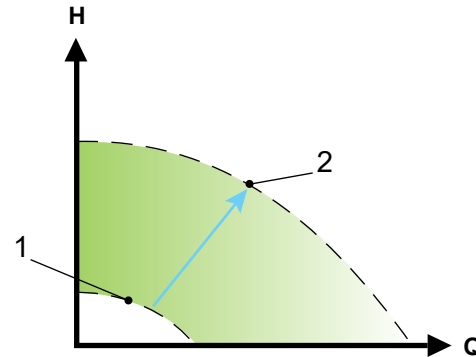
TM071005

### Constant curve (zone pump), AUTOADAPT

This setting is only available with ALPHA 15-58.

The constant curve (zone pump) AUTOADAPT setting ensures a balance between the minimum energy consumption of the pump and the maximum level of resident comfort.

This setting is designed for zone pump systems where the flow rate remains stable throughout the year compared to zone valve systems or systems with TRVs.



TM083658

Pos.	Description
1	Minimum curve
2	Maximum curve

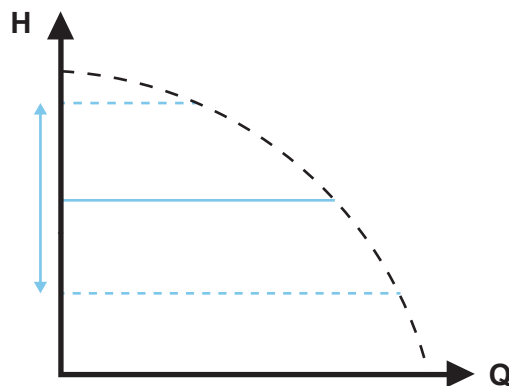
When the pump is set to constant curve (zone pump), AUTOADAPT, the pump starts at a constant curve setting 1 every time the pump is turned on. If the zone or room thermostat has not turned the pump off after an extended operating period, the pump assumes there is not enough flow and ramps up the speed until it reaches the maximum performance curve. It maintains this setting until the pump is switched off by the room or zone thermostat. This is repeated every time the pump is turned on.

## Constant pressure (zone valve)

This control mode is available for the following products:

- UPSe 15-58
- ALPHA 15-58
- ALPHA2 26-99.

In the constant-pressure (zone valve) mode the pump runs at constant pressure which means the head (pressure difference) is kept constant, irrespective of the actual number of opened zones. The pump performance follows the selected constant-pressure curve. This control mode is especially suitable for underfloor heating and applications where the pump is used to supply a common header for multiple zone valves. The head across each zone will remain constant independent of how many zones request heat, thus a constant flow in each zone will be maintained, independent of other zones. The selection of the constant-pressure setting depends on the characteristics of the zones in the heating system and the actual heat demand.



Constant pressure

### Related information

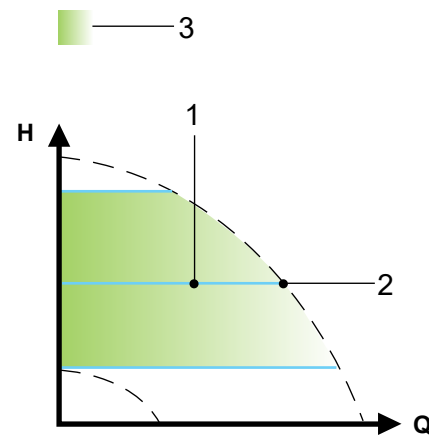
[Control modes, ALPHA2 26-99](#)

## Constant pressure (zone valve), AUTOADAPT

This setting is only available with ALPHA 15-58 and ALPHA2 26-99.

With the constant pressure (zone valve) AUTOADAPT setting, the pump analyses the heating system and over time selects the best constant-pressure setpoint for the given operating conditions. It continuously optimizes the position of the constant-pressure curve via three steps:

1. The pump analyses the heat demand patterns of the heating system.
2. AUTOADAPT verifies whether the pump pressure is too high, too low or suitable.
3. The pump adjusts the setpoint and chooses the best suitable constant-pressure curve from the AUTOADAPT range. The pump will continue this cycle as long as it is running. See the figure below.



Pos.	Description
1	Constant-pressure curve
2	Setpoint
3	AUTOADAPT performance range

If the power supply fails or is disconnected, the pump stores the AUTOADAPT setting in an internal memory and resumes the automatic adjustment when power supply has been restored.

### Related information

[Control modes, ALPHA2 26-99](#)



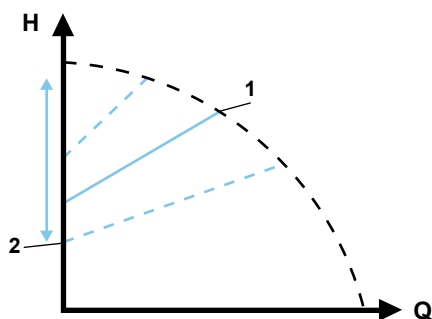
## Proportional pressure (thermostatic radiator valve (TRV))

This control mode is available for the following products:

- UPSe 15-58
- ALPHA 15-58
- ALPHA2 26-99.

In the proportional-pressure (thermostatic radiator valve (TRV)) mode, the pump runs at proportional pressure, which means the head (pressure) is reduced at falling heat demand and increased at rising heat demand. The pump performance follows the selected proportional-pressure curve. This control mode is especially suitable for applications where the heat emitters are equipped with a TRV which controls the flow depending on the room temperature. At increased flow, the losses in the distribution system (pipes and fittings) increase, hence the pumps increase the pressure to compensate and vice versa, hereby maintaining an almost constant differential pressure across the thermostatic radiator valve.

The proportional-pressure mode setpoint depends on the heating system's characteristics and the actual heat demand.



TM071003

Pos.	Description
1	$H_{\text{set}}$
2	$H_{\text{set}} \times 0.40$

### Related information

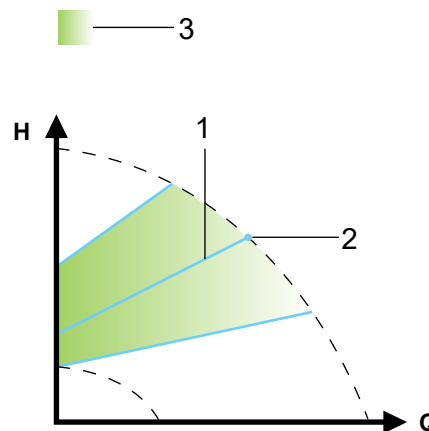
[Control modes, ALPHA2 26-99](#)

## Proportional pressure (thermostatic radiator valve (TRV)), AUTOADAPT

This setting is only available with ALPHA 15-58 and ALPHA2 26-99.

The thermostatic radiator valve (proportional pressure) AUTOADAPT setting analyses the heating system and over time selects the best proportional pressure setpoint under the given operating conditions. It continuously optimizes the position of the constant-pressure curve via three steps:

1. The pump analyses the heat demand patterns of the heating seating.
2. AUTOADAPT verifies whether the pump pressure is too high, too low or suitable.
3. The pump adjusts the setpoint and chooses the best suitable proportional-pressure curve from the AUTOADAPT range. The pump will continue this cycle as long as it is running. See the figure below.



TM083657

Pos.	Description
1	Proportional-pressure curve
2	Setpoint
3	AUTOADAPT performance range

If the power supply fails or is disconnected, the pump stores the AUTOADAPT setting in an internal memory and resumes the automatic adjustment when power supply has been restored.

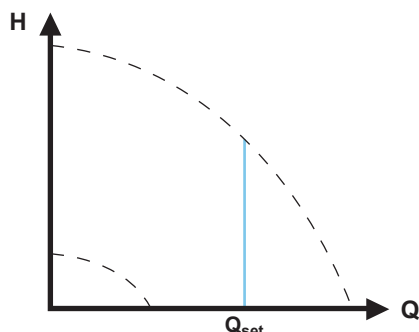
### Related information

[Control modes, ALPHA2 26-99](#)

## Constant flow

This control mode is available for ALPHA 15-58.

In this control mode, the pump maintains a constant flow in the system independently of the head.



*Constant-flow curve*

We recommend that you select this control mode if you know the desired flow rate to the system.

This control mode is recommended for the following applications:

- Zone pump
- Boiler pump
- Tank pump.

## Pumped liquids

Grundfos ALPHA and UPSe circulators are suitable for the following liquids:

- clean, thin, non-aggressive and non-explosive liquids, not containing solid particles, fibers or mineral oil.
- cooling liquids, not containing mineral oil.
- domestic hot water with maximum 15 grain/gal (US), maximum 149 °F (65 °C); maximum peak 158 °F (70 °C).
- softened water.
- If the pump is installed in a heating system, the water must meet the requirements of accepted standards on water quality in heating systems.

For water with a higher degree of hardness, contact Grundfos.

ALPHA and UPSe circulators must not be used for the transfer of flammable liquids such as diesel oil, gasoline or similar liquids, and must not be used to circulate aggressive liquids such as acid or seawater.

In domestic hot water systems, the temperature of the pumped liquid must always be above 122 °F (50 °C) due to the risk of legionella. The temperature of the hot water source must not be high enough to cause burns or scalding.

The pump must be permanently connected to the main water supply and must not be connected with a hose.

The kinematic viscosity of water is 1 mm<sup>2</sup>/s (1 cSt) at 68 °F (20 °C). If the pump is used for a liquid with a higher viscosity, the hydraulic performance of the pump will be reduced.

Example: 50 % glycol at 68 °F (20 °C) means a viscosity of approximately 10 mm<sup>2</sup>/s (10 cSt) and a reduction of the pump performance by approximately 15 %.

When selecting a pump, pay attention to the viscosity of the pumped liquid. Additives that can or will disturb the functionality of the pump must not be used.

### Glycol

Grundfos circulators are designed for pumping clean water or up to 50/50 mixtures by weight of glycol and water.\*

To prevent the glycol mixture from degrading, temperatures exceeding the rated liquid temperature must be avoided, and the operating time at high temperatures must be minimized.

It is important to clean and flush the system before adding the glycol mixture.

To prevent corrosion or precipitation, the glycol mixture must be checked and maintained regularly. If further dilution of the supplied glycol is required, refer to the glycol supplier's instructions.

\* If cooling liquid is used, circulators require mixtures of water with anti-freezing media such as glycol or ethanol down to 14 °F (-10 °C) with a validated temperature profile. The viscosity increases depending on the type of glycol, the mixture, and the liquid temperature, but the viscosity must not exceed 10 mm<sup>2</sup>/s (10 cSt).

TM071240

## 2. UPSe 15-58



TM083137

UPSe is a high-efficiency circulator fitted with an electronically commutated motor. It has been designed for circulating liquids in heating systems and offers the highest HI energy rating on the market.

The pump features a wide range of controls, featuring constant-pressure, proportional-pressure and constant-speed curves, each with three settings, making it suitable for almost any heating application. With the use of the Grundfos GO replacement compatibility check, it is easier than ever to make your selection.

The new toolless, removeable power connector results in fast and easy installation. Fewer callbacks can be expected due to its robust startup, self-venting ability and dry-running protection. Troubleshooting is also fast and easy by using error codes on the pump user interface.

A terminal box with conduit connections is provided for power connection.

### Related information

[Product introduction](#)

### Features

- Best HI energy rating on the market
- Self-venting pump
- Dry-running protection
- Easy wiring
- Robust startup
- Troubleshooting aid with caution, warning and alarm lights
- Replacement compatibility check through the Grundfos GO app.

### Product range

Model	Product number
UPSe 15-58 F 115V 9H	92603106
UPSe 15-58 FR 115V 9H	92603107

### Type key

#### Example: UPSe 15-58 FR

Code	Explanation	Designation
UPSe	Grundfos circulator	Pump type
15	Small circulators	
58	Maximum head [dm]	
F	Flange	Pipe connection
FR	Flange rotated	

### Competitor cross reference

Model	Grundfos	TACO	B&G	Armstrong
	UP 15-42	007/007e	NRF-9F/LW	ASTRO 225
	UPS 15-58	008	NRF-25,33	ASTRO 230
UPSe	ALPHA1 15-55	0015/0015e3	ecocirc 19-14	ASTRO 250
	ALPHA2 15-55		ecocirc 19-16	Compass H20-20
			ecocirc 20-18	

## Technical data

Flow rate (Q)	Max. 13.6 gpm (3.1 m <sup>3</sup> /h)
Head (H)	Max. 19 ft (5.8 m)
Supply voltage	1 × 115 V, ± 10 %, 60 Hz
Motor protection	The pump requires no external motor protection.
Power usage (approximate)	Min.: 3 W
	Max.: 38 W
Enclosure class	Indoor use only. Enclosure type 2.
Insulation class	F
Ambient temperature	32-131 °F (0-55 °C)
Liquid temperature	36-230 °F (2-110 °C)
Relative humidity	Max. 95 %
Max. outlet pressure	175 psi (12 bars) (1.2 MPa)
Check valve	Use of a check valve reduces pump hydraulic performance.
Sound pressure level	< 25 dB(A)
	cULus and FCC.
Approvals	Complies to limits for class B digital device, pursuant to Part 15 of the FCC Rules.
Flange-to-flange length	6.5" (165 mm)
Pump housing	Electrocoated cast iron
Connection type	Flanged connection

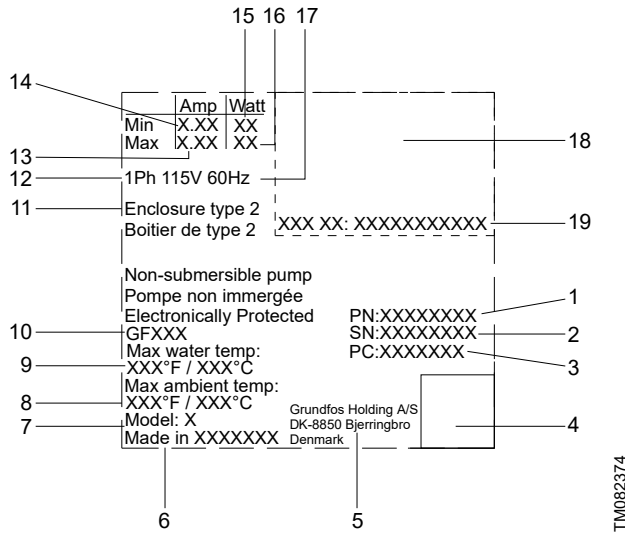


The dew point of the air at ambient temperature must always be lower than the liquid temperature, otherwise condensation may form in the stator housing.

### Inlet pressure

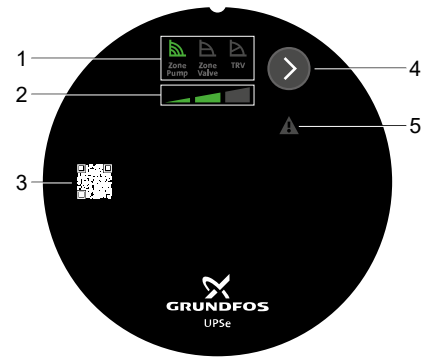
Liquid temperature [°F (°C)]	Minimum inlet pressure [psi (bar)]
167 (75)	0.75 (0.05)
203 (95)	7.25 (0.5)
230 (110)	15.7 (1.08)

### Nameplate



Pos.	Description
1	Product number
2	Serial number
3	Factory code and production code (year and week)
4	Data matrix
5	Grundfos address
6	Country of origin
7	Pump model
8	Max. ambient temperature
9	Max. liquid temperature
10	Combined legal product code
11	Enclosure class
12	Number of phases and voltage
13	Max. current consumption
14	Min. current consumption
15	Min. power consumption
16	Max. power consumption
17	Frequency
18	Approvals
19	FCC radio approval ID

### Operating panel, UPSe



#### Operating panel

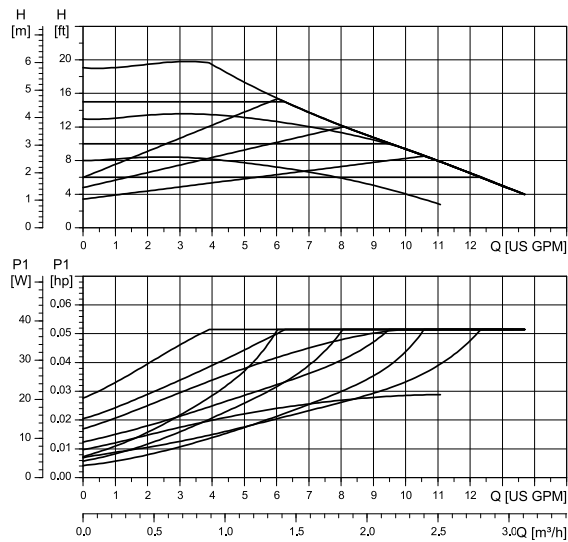
Pos.	Description
1	Control mode
2	Setting (I, II, III)
3	QR code
3	When scanning the QR code, you get access to additional product information and documentation.
4	Button for changing control mode and setting
5	Warning and alarm symbol

The operating panel offers quick access to change the control mode.  
 The menu includes three control modes each with three pump settings:

- Constant curve (zone pump)
- Constant pressure (zone valve)
- Proportional pressure (thermostatic radiator valve (TRV)).

TM082448

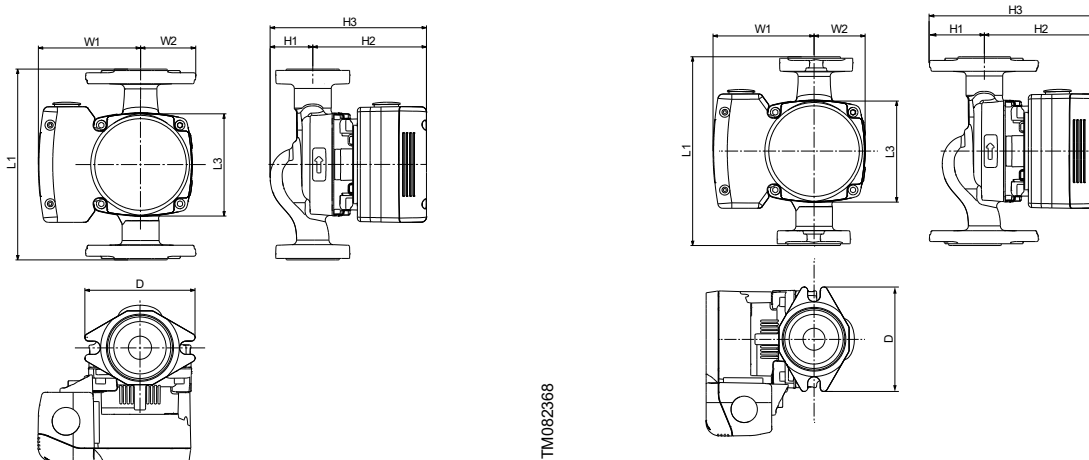
## Performance curve



TM082997

UPSe 15-58

## Dimensions and weights



TM082368

TM082993

Model	Product number	Dimensions [inch (mm)]								Connection	Ship. wt. [lb (kg)]
		W1	W2	D	L1	L3	H1	H2	H3		
UPSe 15-58 F 115V 9H	92603106	3.5 (88)	1.8 (45)	3.7 (95)	6.5 (165)	3.5 (89)	1.5 (37)	3.9 (98)	5.3 (135)	GF 15/26 with 1/2" dia. bolt holes	6.4 (2.9)
UPSe 15-58 FR 115V 9H	92603107	3.5 (88)	1.8 (45)	3.7 (95)	6.5 (165)	3.5 (89)	1.9 (48)	3.9 (98)	5.7 (145)	GF 15/26 with 1/2" dia. bolt holes	6.4 (2.9)

### 3. ALPHA 15-58



TM082628

#### ALPHA 15-58

ALPHA is a high-efficiency circulator fitted with an electronically commutated motor and designed for circulating liquids in heating systems.

The pump features the highest HI energy rating on the market. ALPHA is designed with intelligent controls featuring constant-pressure, proportional-pressure and constant-speed curves, each with three speed settings as well as an AUTOADAPT setting, removing the need to manually select the pump setpoint.

The new toolless, removable power connector results in fast and easy installation. Fewer callbacks can be expected due to its robust startup, self-venting ability and dry-running protection. The system air detection and venting mode can be activated through the Grundfos GO app. Grundfos GO also provides the ability to conveniently troubleshoot the system through the event log, run guided setup, set custom control modes and run firmware updates. Historical trend data for flow, head, estimated media temperature and on-cycle durations are available through the app.

A terminal box with conduit connections is provided for power connection.

#### Related information

[Product introduction](#)

### Features

- Touchscreen user interface
- World-class energy efficiency
- Anti-magnetic shafts and bearings
- Robust Start function enabling automatic deblocking
- AUTOADAPT function, providing optimal comfort levels at lowest possible energy consumption
- Self-venting pump
- Dry-running protection
- Easy wiring - no tools required
- Simple, fast and intuitive setting, control and monitoring via Grundfos GO
- Troubleshooting analysis via Grundfos GO
- System air detection and automatic venting
- Display readouts.

### Product range

Model	Product number
ALPHA 15-58 FR 115V 9H	92603108
ALPHA 15-58 F 115V 9H	92603115

### Type key

#### Example: ALPHA 15-58 FR 115V 9H

Code	Explanation	Designation
ALPHA	Grundfos circulator	Pump type
15	Small circulators	
58	Maximum head [dm]	
F	Flange	
FR	Flange rotated	Pipe connection

### Competitor cross reference

Model	Grundfos	TACO	B&G	Armstrong
	UP 15-42	007/007e	NRF-9F/LW	ASTRO 225
	UPS 15-58	008	NRF-25, 33	ASTRO 230
ALPHA 15-58	ALPHA1 15-55	0015/0015e3	ecocirc 19-14	ASTRO 250
	ALPHA2 15-55	0018e	ecocirc 19-16	Compass H20-20
			ecocirc 20-18	

## Technical data

Flow rate (Q)	Max. 13.6 gpm (3.1 m <sup>3</sup> /h)
Head (H)	Max. 19 ft (5.8 m)
Supply voltage	1 × 115 V, ± 10 %, 60 Hz
Motor protection	The pump requires no external motor protection.
Power usage (approximate)	Min.: 3 W
	Max.: 38 W
Enclosure class	Indoor use only.
	Enclosure type 2.
Insulation class	F
Ambient temperature	32-131 °F (0-55 °C)
Liquid temperature	36-230 °F (2-110 °C)
Relative humidity	Max. 95 %
Max. outlet pressure	175 psi (12 bars) (1.2 MPa)
Check valve	Use of a check valve reduces pump hydraulic performance.
Sound pressure level	< 25 dB(A)
	cULus and FCC.
Approvals	Complies to limits for class B digital device, pursuant to Part 15 of the FCC Rules.
Flange-to-flange length	6.5" (165 mm)
Pump housing	Electrocoated cast iron
Connection type	Flanged connection



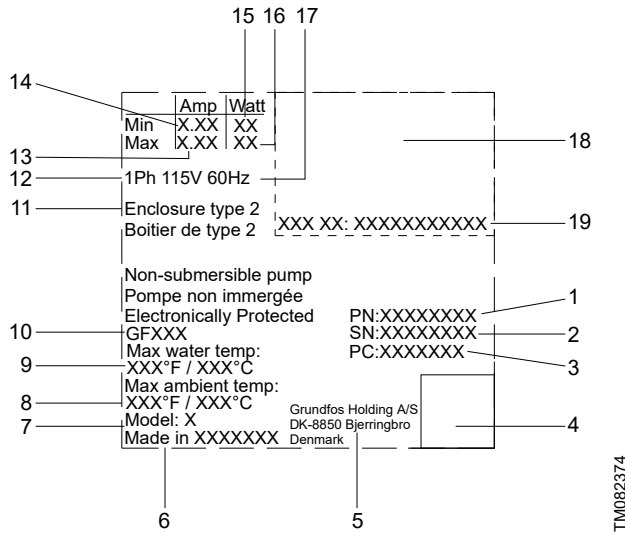
The dew point of the air at ambient temperature must always be lower than the liquid temperature, otherwise condensation may form in the stator housing.

### Inlet pressure

Liquid temperature [°F (°C)]	Minimum inlet pressure [psi (bar)]
167 (75)	0.75 (0.05)
203 (95)	7.25 (0.5)
230 (110)	15.7 (1.08)



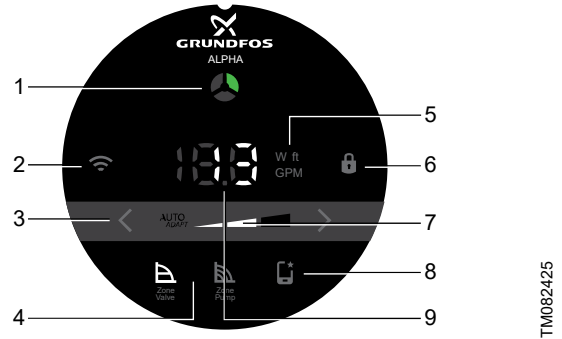
### Nameplate



Pos.	Description
1	Product number
2	Serial number
3	Factory code and production code (year and week)
4	Data matrix
5	Grundfos address
6	Country of origin
7	Pump model
8	Max. ambient temperature
9	Max. liquid temperature
10	Combined legal product code
11	Enclosure class
12	Number of phases and voltage
13	Max. current consumption
14	Min. current consumption
15	Min. power consumption
16	Max. power consumption
17	Frequency
18	Approvals
19	FCC radio approval ID

### Operating panel

LED symbols and buttons on the pump display

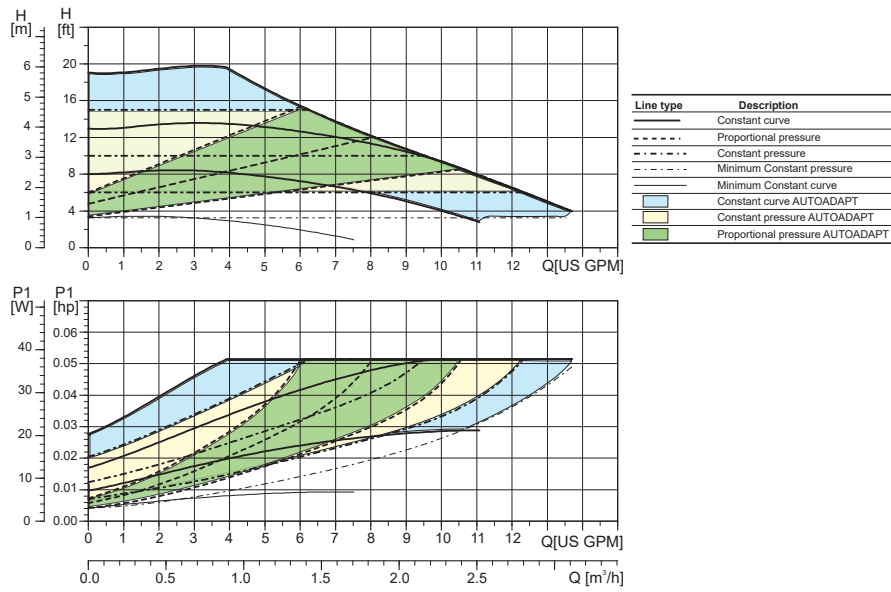


Pos.	Description
1	Grundfos mini Eye The indicator light shows the operating status of the product.
2	Connect If lit, the pump is connected to Grundfos GO via Bluetooth.
3	Settings for control modes Use the arrows to toggle between I, II, III and AUTOADAPT.
4	Control mode You can select the control mode constant pressure (zone valve) or constant curve (zone pump).
5	Unit The indicator light shows the unit used for the number to the left. W = Watt, ft = feet and GPM = gallons per minute.
6	Lock This indicates that the operating panel is locked and no buttons can be used. It automatically locks after a few seconds. To unlock the panel, push and hold the icon for 1 second.
7	Settings for the selected control mode I, II, III or AUTOADAPT
8	Grundfos GO The pump has been set via Grundfos GO.
9	The light field indicates: <ul style="list-style-type: none"> <li>Power consumption [W]</li> <li>Head [ft]</li> <li>Flow rate [gpm]</li> <li>Spinner</li> <li>Error code.</li> </ul>

The operating panel has a touchscreen which means you can change settings by touching the icons on the operating panel.

**!** Due to interference of the touchscreen, keep a distance of minimum 5 mm from the front of the operating panel to all conductive materials, for example, metal cabinets and cables.

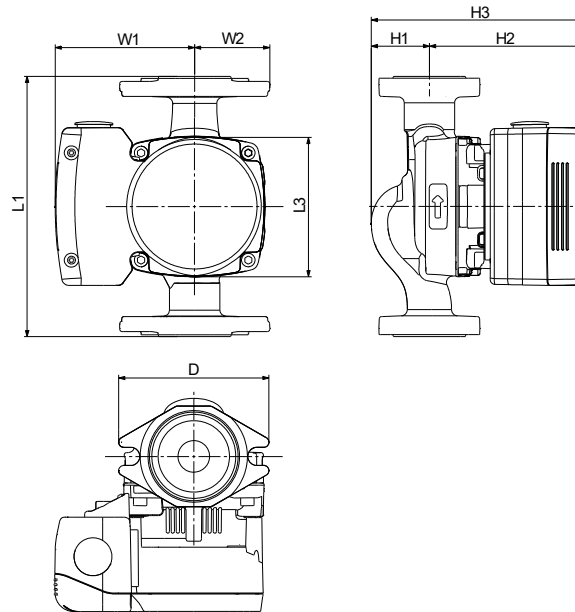
### Performance curve



TM083862

ALPHA 15-58

### Dimensions and weights



TM082368

Model	Product number	Dimensions [inch (mm)]								Connection	Ship. wt. [lb (kg)]
		W1	W2	D	L	L3	H1	H2	H3		
ALPHA 15-58 FR 115V 9H	92603108	3.5 (88)	1.8 (45)	3.7 (95)	6.5 (165)	3.5 (89)	1.5 (37)	3.9 (98)	5.3 (135)	GF 15/26 with 1/2" dia. bolt holes	6.4 (2.9)
ALPHA 15-58 F 115V 9H	92603115	3.5 (88)	1.8 (45)	3.7 (95)	6.5 (165)	3.5 (89)	1.9 (48)	3.9 (98)	5.7 (145)	GF 15/26 with 1/2" dia. bolt holes	6.6 (3)

## 4. ALPHA1 26-99



TM083027

### ALPHA1 26-99

Grundfos ALPHA1 is a medium-sized high-efficiency, variable-speed circulator fitted with electronically commutated motor designed for circulating liquids in heating systems.

The pump is externally controlled via a low-voltage 0-10 VDC signal by a system controller integrated in a boiler or a building management system. The pump will run at its maximum speed if no signal is present or it fails, for example, cable break.

ALPHA1 materials and design are resistant to blockage from magnetite found in hydronic systems. ALPHA1 is complete with an integrated check valve.

### Related information

[Product introduction](#)

## Features

- 0-10 V analog input control
- runs at its maximum speed if no VDC signal is present
- pump alarm output signal
- magnetite-resistant design protects the pump from harmful iron oxide found in heating systems
- high-efficiency pump design
- 360 [Nm] starting torque clears the pump of system debris and sediment.

## Product range

Model	Description	Product number
ALPHA1 26-99 F	Electrocoated cast-iron flange with terminal box	99490914

## Type key

### Example: ALPHA1 26-99 FC

Code	Description
ALPHA	Pump range (ECM circulator)
1	<b>Pump control:</b> 1: Externally controlled (0-10 V)
26-99	<b>Pump name:</b>
-	<b>Material:</b> - : Electrocoated cast iron
F	<b>Connection:</b> F: Flange
C	Check valve (removable)

## Competitor cross reference

Model	Grundfos	TACO	B&G	Armstrong
ALPHA1 26-99	UP26-64F/VS, UP26-96F/VS	0010-VVF, 0011VVF	-	-

## Technical data

Flow (Q)	0-26 gpm (0 - 5.9 m <sup>3</sup> /h)
Head (H)	0-42 ft (0 - 12.8 m)
Supply voltage	1 x 115 V, ± 10 %, 60 Hz
Power usage (approximate)	3-120 W
Motor protection	EP - Electronically Protected The pump requires no external motor protection.
Sound pressure level	43 dB(A)
Amps	Max. 1.7 A
Horsepower	0.16 hp
Enclosure class	CSA enclosure type 2. Indoor use only. X2D.
Liquid temperature	Max. 203 °F (95 °C) at 131 °F ( 55 °C) ambient temperature (continuously)
	Max. 230 °F (95 °C) for short periods or at low load
	Min. 14 °F (-10 °C) (see validated temperature profile)
	<b>Note:</b> For further lifetime evaluation, the temperature profile must be defined.
Relative humidity	Max. 95 % Condensation is acceptable if the drain holes are free.
Ambient temperature	Max. 130 °F (55 °C) near the pump surface.
Storage temp.	Max. 158 °F (70 °C)
Insulation class	F
Max. system pressure	Max. 150 psi (10 bar) (1.0 MPa) with cast-iron
Max. outlet pressure	Max. 150 psi (10 bar)
Approvals	cULus Listed; cULus Classified, Water Quality, Drinking water system component; NSF/ANSI 61/ MH26400/NSF/ANSI 372.
Flange-to-flange length	6.5 in (165 mm)
Pump housing	Electrocoated cast iron
Connection type	Flanged
Glycol	Maximum glycol concentrations with clean water: 50 % glycol at 36 °F (2 °C). Hydraulic performance change can be expected.
Check valve	Use of a check valve may reduce pump hydraulic performance (up to -10 %). Use a check valve in parallel pumping applications.
Curve conditions	Test liquid: Airless water. <sup>5)</sup>
Inrush current	Measured on a flicker network according to IEC 61000-3-3:1994 + A1, + A2, Annex B. 115 V: 25.2 A.
Leakage current	< 3.5 mA

<sup>5)</sup> Curves apply to a density of 983.2 kg/m<sup>3</sup> and a liquid temperature of 140 °F (60 °C). All curves show average values and should not be used as guarantee curves. If a specific minimum performance is required, individual measurements must be made. Curves apply to a kinematic viscosity of 0.474 cSt.

### Minimum inlet pressure

To avoid cavitation noise and damage to the circulator bearings, the following minimum pressures are required at the inlet port.

Liquid temperature	167 °F (75 °C)	203 °F (95 °C)	230 °F (110 °C)
Minimum inlet pressure	0.01 MPa	0.05 MPa	0.10 MPa
	0.10 bar	0.50 bar	1.00 bar

### Check valve

Use of a check valve may reduce pump hydraulic performance. Use a check valve in parallel pumping applications.

## Approvals and markings



TM070539

Grundfos cULus listed pumps are tested and evaluated with water only.

ALPHA1 26-99 pumps for the North American market are UL approved (E96215 vol. 1). Approval codes:

Model	Code	Voltage	Power	Control mode
ALPHA1 26-99	GFJOD	115 V	120 W	VDC

## Construction

Grundfos ALPHA1 is designed for long and trouble-free operation including the canned-rotor type, that is 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. These constructions ensure maintenance-free operation.

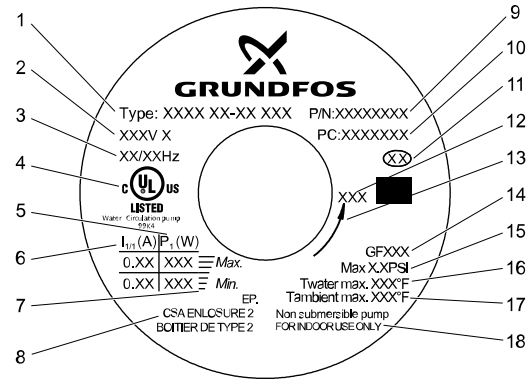
The pumps are characterized by the following:

- Permanent-magnet/compact-stator motor which contributes to high efficiency and high starting torque.
- Ceramic shaft and radial bearings which contribute to long life.
- Carbon thrust bearing which contribute to long life.
- Stainless-steel rotor can, bearing plate and rotor cladding which contribute to corrosion-free long life.
- Composite impeller which contributes to corrosion-free long life.
- Stainless-steel or electrocoated cast-iron pump housing which contributes to flexibility.
- Automatic venting which contributes to easy operation.
- Compact design featuring pump head with integrated control box and operating panel which fit into most common installations.

## Materials

Description	Material
Controller complete	Composite, PC
Rotor can	Stainless steel
Radial bearing	Ceramics
Shaft	Ceramics
Rotor cladding	Stainless steel
Thrust bearing	Carbon
Thrust bearing retainer	EPDM (ethylene propylene rubber)
Bearing plate	Stainless steel
Impeller	PES composite (30 % glass-filled)
Pump housing	Electrocoated cast iron, stainless steel
Gaskets	EPDM (ethylene propylene rubber)

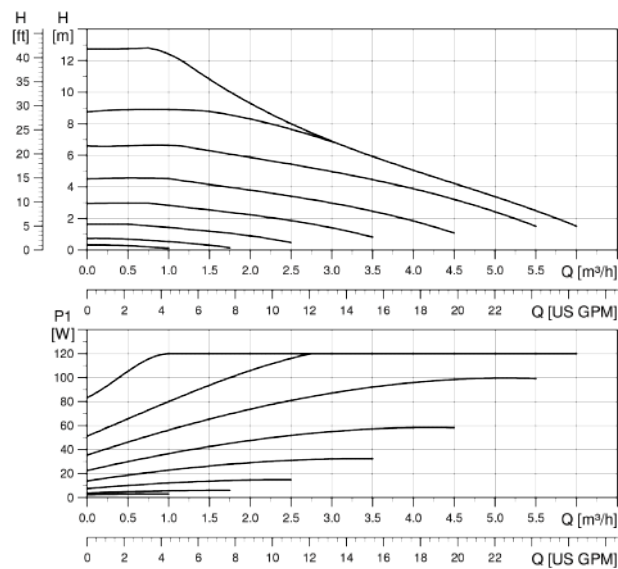
## Nameplate, ALPHA1 26-99, ALPHA2 26-99



TM070336

Pos.	Description
1	Type designation
2	Voltage [V]
3	Frequency [Hz]
4	Approval mark UL
5	Input power P <sub>1</sub> [W] at a maximum and minimum performance
6	Rated current [A] at maximum and minimum performance
7	Speed
8	Enclosure class
9	Product number
10	Production code (year and week)
11	Country of origin
12	Control signal
13	Direction of rotation
14	Code for UL Listed pumps
15	Max. system pressure [psi]
16	Max. water temperature [°F]
17	Max. ambient temperature [°F]
18	Application

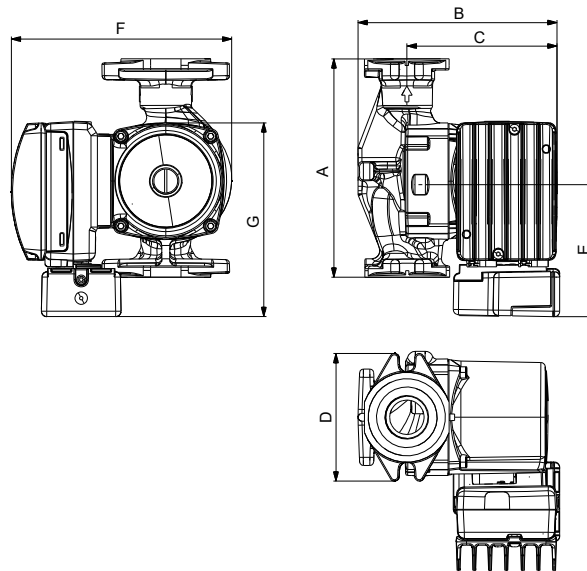
## Performance curve



TM073788

ALPHA1 26-99 circulators are externally speed-controlled by an analog 0-10 VDC signal.

## Dimensions and weights



TM074553

Model	Product number	Dimensions [inch (mm)]							Flange	Ship. wt. [lb (kg)]	
		115 V	A	B	C	D	E	F			G
ALPHA1 26-99	99490914		6.50 (165)	5.91 (150)	4.45 (113)	3.78 (96)	4.06 (103)	6.58 (167)	5.79 (147)	GF 15/26 with (2) 1/2" dia. bolt holes	5.95 (2.7)

**Note:** Dimensions are in inches unless otherwise stated.

## 5. ALPHA2 26-99



TM074557

### ALPHA2 26-99

Grundfos ALPHA2 is a medium-sized high-efficiency, variable-speed circulator fitted with an electronically commutated motor designed for circulating liquids in heating, cooling, air conditioning and hot water recirculation (HWR) systems.

ALPHA2 features constant pressure and proportional pressure control modes with three curves and an AUTOADAPT setting.

The AUTOADAPT setting enables the pump to continuously adjust the pump performance to the current heat demand and find the setting that provides optimal comfort with minimal energy consumption.

The one-button operation and LED display make the selection of the settings easy.

ALPHA2 materials and design are resistant to blockage from magnetite found in hydronic systems.

The pump is complete with an integrated check valve. It is fitted with a terminal box for conduit connections.

### Related information

[Product introduction](#)

## Features

- 3 defined proportional-pressure curve settings
- 3 defined constant-pressure curve settings
- Constant pressure AUTOADAPT
- Proportional pressure AUTOADAPT
- Magnetite-resistant design protects the pump from harmful iron oxide found in heating systems
- High-efficiency pump design
- 360 [Nm] starting torque clears pump of system debris and sediment
- System and pump protection warning and alarm indicators
- LED light indicators for pump settings and alarms
- Easy to use push-button control settings.

## Product range

Model	Description	Product number
ALPHA2 26-99 F	Electrocoated cast-iron flange with terminal box	99490916
ALPHA2 26-99 SU	Stainless-steel threaded version with terminal box for HWR application	99490917

## Type key

### Example: ALPHA2 26-99 FC

Code	Description
ALPHA	Pump range (ECM circulator)
	<b>Pump control:</b>
2	2: Internally pressure-controlled modes <ul style="list-style-type: none"> <li>• Proportional pressure</li> <li>• Constant pressure</li> <li>• Proportional pressure including AUTOADAPT setting</li> <li>• Constant pressure including AUTOADAPT setting</li> </ul>
26-99	<b>Pump name:</b>
	<b>Material:</b>
-	- : Electrocoated cast iron
	S: Stainless steel (for hot water recirculation application)
	<b>Connection:</b>
F	F: Flange
	U: Thread 1 1/2"
C	Check valve (removable)

## Competitor cross reference

Model	Grundfos	TACO	B&G	Armstrong
ALPHA2 26-99	UPS 26-99F	0011-F4, VR3452	Ecocirc XL	-

## Technical data

Flow (Q)	0-26 gpm (0 - 5.9 m <sup>3</sup> /h)
Head (H)	0-42 ft (0 - 12.8 m)
Supply voltage	1 x 115 V, ± 10 %, 60 Hz
Power usage (approximate)	3-120 W
Motor protection	EP - Electronically Protected The pump requires no external motor protection.
Sound pressure level	43 dB(A)
Amps	Max. 1.7 A
Horsepower	0.16 hp
Enclosure class	CSA enclosure type 2. Indoor use only. X2D.
Liquid temperature	Max. 203 °F (95 °C) at 131 °F ( 55 °C) ambient temperature (continuously)
	Max. 230 °F (95 °C) for short periods or at low load
	Min. 14 °F (-10 °C) (see validated temperature profile)
	<b>Note:</b> For further lifetime evaluation, the temperature profile must be defined.
Relative humidity	Max. 95 % Condensation is acceptable if the drain holes are free.
Ambient temperature	Max. 130 °F (55 °C) near the pump surface.
Storage temp.	Max. 158 °F (70 °C)
Insulation class	F
Max. system pressure	Max. 150 psi (10 bar) (1.0 MPa) with cast-iron
Max. outlet pressure	Max. 150 psi (10 bar)
Approvals	cULus Listed; cULus Classified, Water Quality, Drinking water system component; NSF/ANSI 61/ MH26400/NSF/ANSI 372.
Flange-to-flange length	6.5 in (165 mm)
Pump housing	Electrocoated cast iron
Connection type	Flanged
Glycol	Maximum glycol concentrations with clean water: 50 % glycol at 36 °F (2 °C). Hydraulic performance change can be expected.
Check valve	Use of a check valve may reduce pump hydraulic performance (up to -10 %). Use a check valve in parallel pumping applications.
Curve conditions	Test liquid: Airless water. <sup>5)</sup>
Inrush current	Measured on a flicker network according to IEC 61000-3-3:1994 + A1, + A2, Annex B. 115 V: 25.2 A.
Leakage current	< 3.5 mA

<sup>5)</sup> Curves apply to a density of 983.2 kg/m<sup>3</sup> and a liquid temperature of 140 °F (60 °C). All curves show average values and should not be used as guarantee curves. If a specific minimum performance is required, individual measurements must be made. Curves apply to a kinematic viscosity of 0.474 cSt.

### Minimum inlet pressure

To avoid cavitation noise and damage to the circulator bearings, the following minimum pressures are required at the inlet port.

Liquid temperature	167 °F (75 °C)	203 °F (95 °C)	230 °F (110 °C)
Minimum inlet pressure	0.01 MPa	0.05 MPa	0.10 MPa
	0.10 bar	0.50 bar	1.00 bar

### Check valve

Use of a check valve may reduce pump hydraulic performance. Use a check valve in parallel pumping applications.

## Approvals and markings



TM070539

Grundfos cULus listed pumps are tested and evaluated with water only.

ALPHA2 26-99 pumps for the North American market are UL approved (E96215 vol. 1 and MH26400). Approval codes:

Model	Code	Voltage	Power	Control mode
ALPHA2 26-99	GFJOF	115 V	120 W	AUTO



## Construction

Grundfos ALPHA2 is designed for long and trouble-free operation including the canned-rotor type, that is 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. These constructions ensure maintenance-free operation.

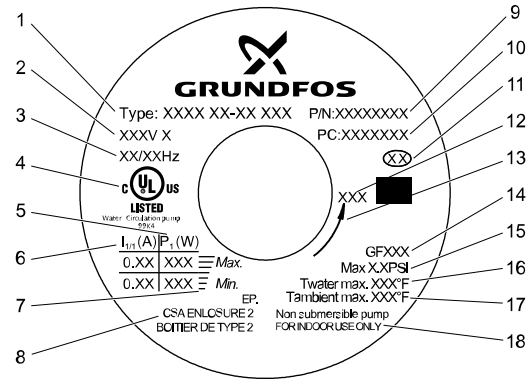
The pumps are characterized by the following:

- Permanent-magnet/compact-stator motor which contributes to high efficiency and high starting torque.
- Ceramic shaft and radial bearings which contribute to long life.
- Carbon thrust bearing which contribute to long life.
- Stainless-steel rotor can, bearing plate and rotor cladding which contribute to corrosion-free long life.
- Composite impeller which contributes to corrosion-free long life.
- Stainless-steel or electrocoated cast-iron pump housing which contributes to flexibility.
- Automatic venting which contributes to easy operation.
- Compact design featuring pump head with integrated control box and operating panel which fit into most common installations.

## Materials

Description	Material
Controller complete	Composite, PC
Rotor can	Stainless steel
Radial bearing	Ceramics
Shaft	Ceramics
Rotor cladding	Stainless steel
Thrust bearing	Carbon
Thrust bearing retainer	EPDM (ethylene propylene rubber)
Bearing plate	Stainless steel
Impeller	PES composite (30 % glass-filled)
Pump housing	Electrocoated cast iron, stainless steel
Gaskets	EPDM (ethylene propylene rubber)

## Nameplate, ALPHA1 26-99, ALPHA2 26-99



TM070336

Pos.	Description
1	Type designation
2	Voltage [V]
3	Frequency [Hz]
4	Approval mark UL
5	Input power P1 [W] at a maximum and minimum performance
6	Rated current [A] at maximum and minimum performance
7	Speed
8	Enclosure class
9	Product number
10	Production code (year and week)
11	Country of origin
12	Control signal
13	Direction of rotation
14	Code for UL Listed pumps
15	Max. system pressure [psi]
16	Max. water temperature [°F]
17	Max. ambient temperature [°F]
18	Application

## Control modes, ALPHA2 26-99

### Internally controlled

ALPHA2 26-99 circulators are designed for systems with variable flow rates, where the pump is internally controlled via a user interface.

The pump automatically controls the differential pressure by adjusting the performance to the actual heat demand without the use of external components.

### Related information

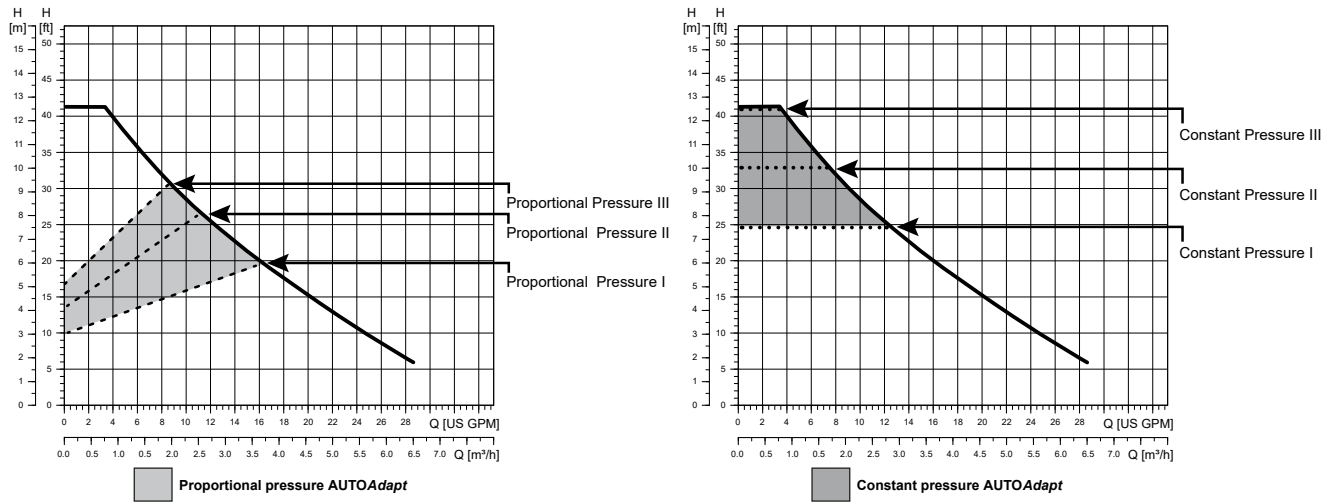
*Constant pressure (zone valve)*

*Constant pressure (zone valve), AUTOADAPT*

*Proportional pressure (thermostatic radiator valve (TRV))*

*Proportional pressure (thermostatic radiator valve (TRV)), AUTOADAPT*

## Performance curve

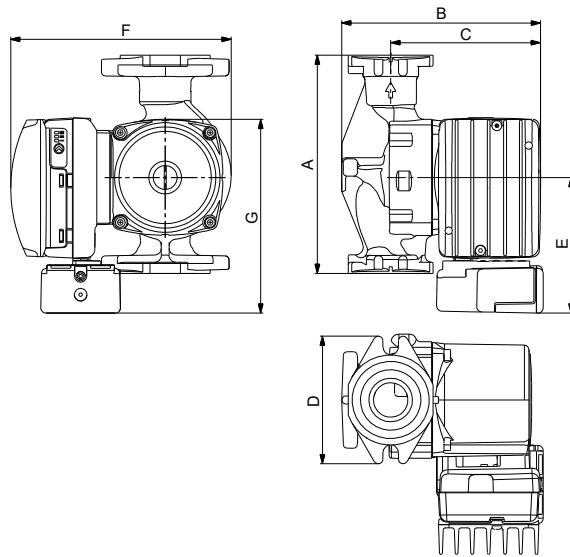


TM074500

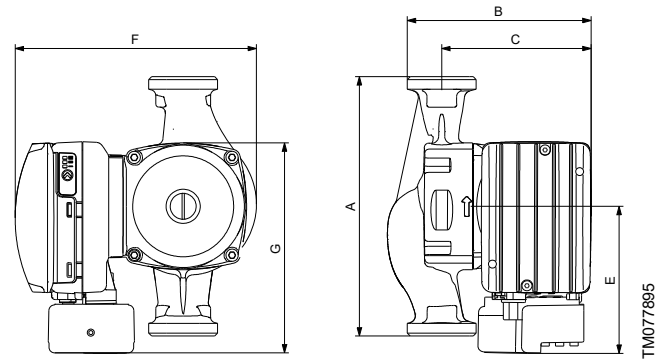
<b>Push-button</b>		➔
<ul style="list-style-type: none"> <li>Each time you press the push-button, the circulator setting is changed.</li> </ul>		
<b>Proportional pressure I</b>		I
<ul style="list-style-type: none"> <li>The duty point of the pump will move up or down along the lowest proportional-pressure curve, depending on the heat demand in the system.</li> <li>The pump head (pressure) is reduced at falling heat demand and increased at rising flow demand.</li> </ul>		
<b>Proportional pressure II</b>		II
<ul style="list-style-type: none"> <li>The duty point of the pump will move up or down along the middle proportional-pressure curve, depending on the heat demand in the system.</li> <li>The pump head (pressure) is reduced at falling heat demand and increased at rising flow demand.</li> </ul>		
<b>Proportional pressure III</b>		III
<ul style="list-style-type: none"> <li>The duty point of the pump will move up or down along the highest proportional-pressure curve, depending on the heat demand in the system.</li> <li>The pump head (pressure) is reduced at falling heat demand and increased at rising flow demand.</li> </ul>		
<b>Proportional pressure AUTOADAPT</b>		AUTO ADAPT
<ul style="list-style-type: none"> <li>This function enables the circulator to control the pump performance automatically within the defined proportional pressure range and automatically adjusts the pump performance to system demands over time.</li> </ul>		
<b>Constant pressure I</b>		I
<ul style="list-style-type: none"> <li>The duty point of the pump will move left and right along the lowest constant-pressure curve depending on the flow demand in the system.</li> <li>The pump head (pressure) is kept constant, irrespective of the flow demand.</li> </ul>		
<b>Constant pressure II</b>		II
<ul style="list-style-type: none"> <li>The duty point of the pump will move left and right along the middle constant-pressure curve depending on the flow demand in the system.</li> <li>The pump head (pressure) is kept constant, irrespective of the flow demand.</li> </ul>		
<b>Constant pressure III</b>		III
<ul style="list-style-type: none"> <li>The duty point of the pump will move left and right along the highest constant-pressure curve depending on the flow demand in the system.</li> <li>The pump head (pressure) is kept constant, irrespective of the flow demand.</li> </ul>		
<b>Constant pressure AUTOADAPT</b>		AUTO ADAPT
<ul style="list-style-type: none"> <li>This function enables the circulator to control the pump performance automatically within the defined constant pressure range and automatically adjusts the pump performance to system demands over time.</li> </ul>		

## Dimensions and weights

ALPHA2 26-99



ALPHA2 26-99 SU



Model	Product number		Dimensions [inch (mm)]						Connection	Ship. wt. [lb (kg)]
	115 V	A	B	C	D	E	F	G		
ALPHA2 26-99 F	99490916	6.50 (165)	5.91 (150)	4.45 (113)	3.78 (96)	4.06 (103)	6.58 (167)	5.79 (147)	GF 15/26 with (2) 1/2" dia. bolt holes	5.95 (2.7)
ALPHA2 26-99 SU	99490917	7.10 (180)	5.55 (141)	4.06 (103)	-	4.06 (103)	6.58 (167)	5.79 (147)	1 1/2" NSPM	5.30 (2.4)

**Note:** Dimensions are in inches unless otherwise stated.

## 6. Grundfos Product Center

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

From the international view, you can select your specific country to view the product range available to you.

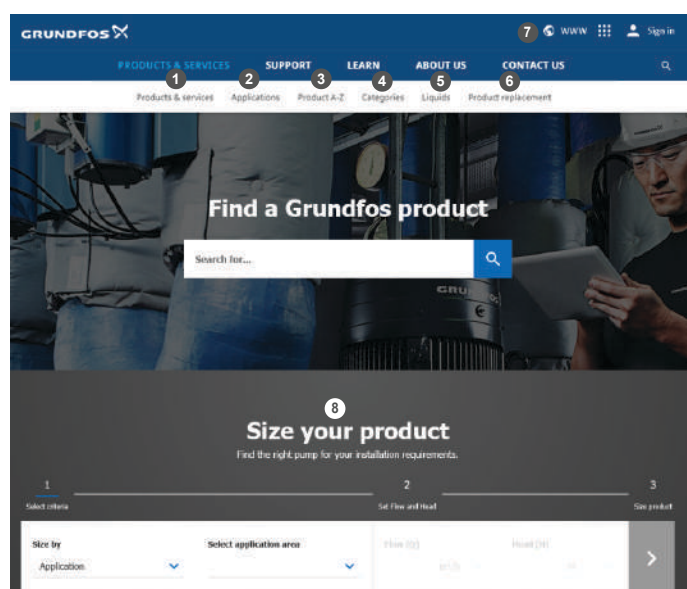
International view: <http://product-selection.grundfos.com>

### 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.



When you select your country, you will see the menus below. Note that some menus may not be available depending on the country.

Example: <https://product-selection.grundfos.com/us>

Pos.	Description
1	<b>Products &amp; services</b> enables you to find products and documents by typing a product number or name into the search field.
2	<b>Applications</b> enables you to choose an application to see how Grundfos can help you design and optimise your system.
3	<b>Products A-Z</b> enables you to look through a list of all the Grundfos products.
4	<b>Categories</b> enables you to look for a product category.
5	<b>Liquids</b> enables you to find pumps designed for aggressive, flammable or other special liquids.
6	<b>Product replacement</b> enables you to find a suitable replacement.
7	<b>WWW</b> enables you to select the country, which changes the language, the available product range and the structure of the website.
8	<b>Sizing</b> enables you to size a product based on your application and operating conditions.

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