ALPHA2

Circulator pumps



GRUNDFOS

3. Operating conditions

Pumped liquids

The pump is suitable for the following liquids:

- clean, thin, non-aggressive and non-explosive liquids, not containing solid particles or fibres
- cooling liquids, not containing mineral oil
- softened water.

The kinematic viscosity of water is υ = 1 mm^2/s (1 cSt) at 20 °C. If you use the pump for a liquid with a higher viscosity, the hydraulic performance of the pump will be reduced.

Example: 50 % glycol at 20 °C means a viscosity of approx. 10 mm^2/s (10 cSt) and a reduction of pump performance by approx. 15 %.

Do not use additives that in any way can or will disturb the functionality of the pump.

When selecting a pump, take the viscosity of the pumped liquid into consideration.

Technical data

Liquid temperature

ALPHA2 pumps: 2-110 °C.

In domestic hot-water systems, we recommend that you keep the liquid temperature between 50 and 65 °C to eliminate the risk of lime precipitation.

To avoid condensation in the control box and stator, the liquid temperature must always be higher than the ambient temperature. See table below.

Ambient temperature [°C]	Liquid temperature	
	Min. [°C]	Max. [°C]
0	2	110
10	10	110
20	20	110
30	30	110
35	35	90
40	40	70

The ALPHA2 pump can, however, run at ambient temperatures higher than the liquid temperature if the plug connection in the pump head is pointing downwards. See figures *Possible control box positions, heating systems* and *Possible control box position, air-conditioning and cold-water systems*.

System pressure

PN 10: Maximum 1.0 MPa (10 bar).

Inlet pressure

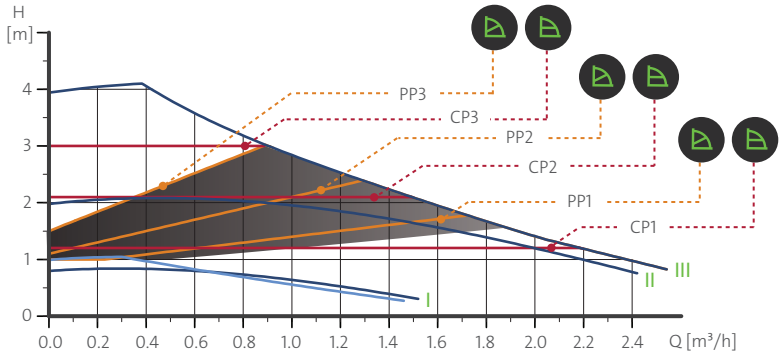
To avoid cavitation noise and damage to the pump bearings, the following minimum pressures are required at the inlet port.

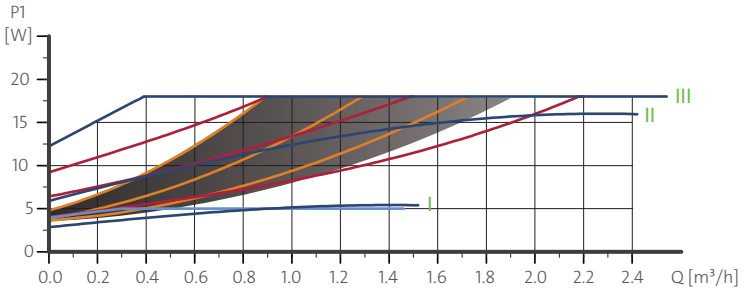
Liquid temperature	75 °C	90 °C	110 °C
Inlet pressure	0.5 m head	2.8 m head	10.8 m head
	0.005 MPa	0.028 MPa	0.108 MPa
	0.05 bar	0.28 bar	1.08 bar

Electrical data

Supply voltage	1 x 230 V ± 10 %, 50/60 Hz, PE.
Motor protection	The pump requires no external motor protection.
Enclosure class	IPX4D.
Insulation class	F.
Relative air humidity	Maximum 95 %.
Ambient temperature	0-40 °C.
Temperature class	TF110 to EN 60335-2-51.
EMC (electromagnetic compatibility)	EMC Directive (2014/30/EU)
Sound pressure level	≤ 43 dB(A).

ALPHA2 25-40 (N)

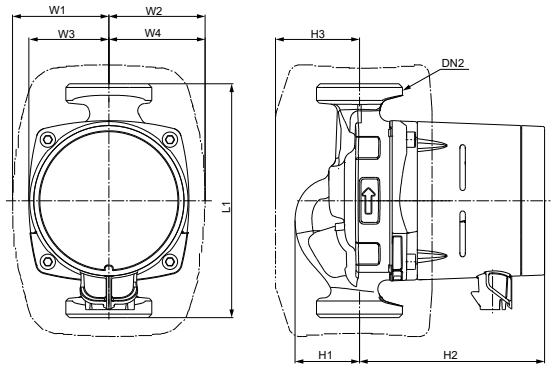




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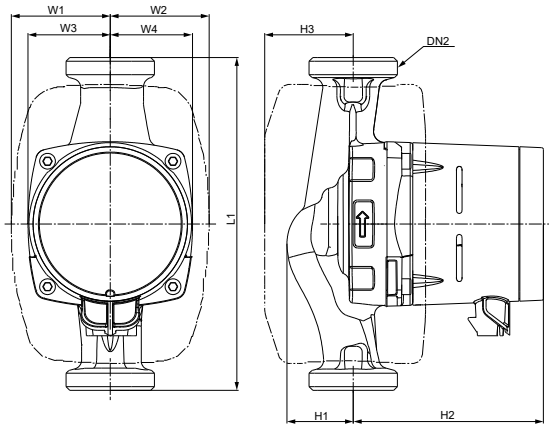
Speed	P1 [W]	I_1 [A]	Connections:	See *8.1 Unions and valve kits*.
AUTOADAPT	4-18	0.04 - 0.18	System pressure:	Maximum 1.0 MPa (10 bar).
Min.	3	0.04	Liquid temperature:	2-110 °C (TF 110).
Max.	18	0.18	Also available with:	Stainless-steel pump housing, type N.
The pump incorporates overload protection.			Specific EEI:	≤ 0.15.

ALPHA 25-XX 130



TM083405

ALPHA 25-XX 180



TM083407

Pump type	Dimensions [mm]									Weights [kg]		Ship. vol.
	L1	W1	W2	W3	W4	H1	H2	H3	DN2	Net	Gross	[m³]
ALPHA2 25-40	130	54	54	44	44	36	104	47	G 1 1/2	1.9	2.0	0.004
ALPHA2 25-40 N	130	54	54	44	44	37	104	47	G 1 1/2	2.0	2.1	0.004
ALPHA2 25-40	180	54	54	44	44	36	104	47	G 1 1/2	2.0	2.1	0.004
ALPHA2 25-40 N	180	54	54	44	44	37	104	47	G 1 1/2	2.1	2.3	0.004

9. Product numbers

ALPHA2 for the D-A-CH market (Germany, Austria and Switzerland)

Model E

Pump type	Port-to-port length [mm]	Connection	Product number
ALPHA2 15-40	130	G 1	99261679
ALPHA2 15-60	130	G 1	99261696
ALPHA2 15-80	130	G 1	99261699
ALPHA2 25-40	130	G 1 1/2	99261701
ALPHA2 25-40 N	130	G 1 1/2	99271964
ALPHA2 25-60	130	G 1 1/2	99261724
ALPHA2 25-60 N	130	G 1 1/2	99271967
ALPHA2 25-80	130	G 1 1/2	99261726
ALPHA2 25-80 N	130	G 1 1/2	99271968
ALPHA2 25-40	180	G 1 1/2	99260497
ALPHA2 25-40 N	180	G 1 1/2	99271969
ALPHA2 25-60	180	G 1 1/2	99261730
ALPHA2 25-60 N	180	G 1 1/2	99271971
ALPHA2 25-80	180	G 1 1/2	99261732
ALPHA2 25-80 N	180	G 1 1/2	99271972
ALPHA2 32-40	180	G 2	99261735
ALPHA2 32-40 N	180	G 2	99271994
ALPHA2 32-60	180	G 2	99261737
ALPHA2 32-60 N	180	G 2	99271995
ALPHA2 32-80	180	G 2	99261738
ALPHA2 32-80 N	180	G 2	99271996

ALPHA2 for the international market

Model E

Pump type	Port-to-port length [mm]	Connection	Product number
ALPHA2 15-40	130	G 1	99411107
ALPHA2 15-50	130	G 1	99411113
ALPHA2 15-60	130	G 1	99411114
ALPHA2 15-80	130	G 1	99411116
ALPHA2 20-40 N	150	G 1 1/4	92505498
ALPHA 20-60 N	150	G 1 1/4	92505511
ALPHA2 25-40	130	G 1 1/2	99411143
ALPHA2 25-40 N	130	G 1 1/2	99411272
ALPHA2 25-50	130	G 1 1/2	99411146
ALPHA2 25-50 N	130	G 1 1/2	99411286
ALPHA2 25-60	130	G 1 1/2	99411150
ALPHA2 25-60 N	130	G 1 1/2	99411287
ALPHA2 25-80	130	G 1 1/2	99411163
ALPHA2 25-80 N	130	G 1 1/2	99411289
ALPHA2 25-40	180	G 1 1/2	99411165
ALPHA2 25-40 N	180	G 1 1/2	99411365
ALPHA2 25-50	180	G 1 1/2	99411173
ALPHA2 25-50 N	180	G 1 1/2	99411371
ALPHA2 25-60	180	G 1 1/2	99411175
ALPHA2 25-60 N	180	G 1 1/2	99411424
ALPHA2 25-80	180	G 1 1/2	99411178