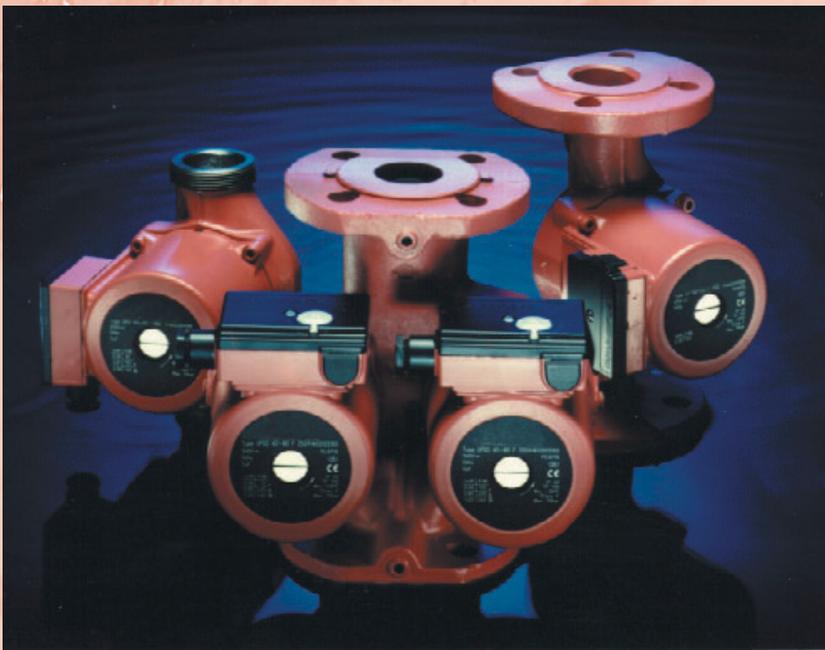


UP/UPS

Light Commercial Circulators



Visions & Values

“It is the Vision of the Company to achieve our Corporate Mission by providing quality and innovative products and services that give our customers complete satisfaction, through well-motivated, high performing and well rewarded people.

We achieve this by developing a caring, enjoyable stimulating and challenging working environment, incorporating all our Values”

Sustainable Development

“Sustainable development is a key concept at Grundfos. It is vital that our products demonstrate respect for the environment, especially in terms of energy consumption and use of materials.”

Applications

UP, UPS, UPD, UPSD pumps are primarily suitable for circulation of liquid in

- central heating systems
- district heating systems
- hot-water service systems
- solar heating systems

- secondarily for circulation of liquid in

- small industrial systems
- cooling systems
- air-conditioning systems.

The pumps can be used in both open and closed systems.

Pumped liquids

UP, UPS, UPD, UPSD pumps are suitable for pumping the following liquids:

- Thin, clean, non-aggressive and non-explosive liquids without solid particles or fibres.
- Cooling liquids, not containing mineral oil.
- Domestic hot water, max. 14°dH (recommended value).
- Softened water, max. 14°dH (recommended value).

The kinematic viscosity of water is 1 cSt (1 mm²/s) at 20°C. If the circulator pump is used for a liquid with a higher viscosity, the hydraulic performance of the pump will be lower. So when selecting a pump, the viscosity of the pumped liquid must be taken into consideration.

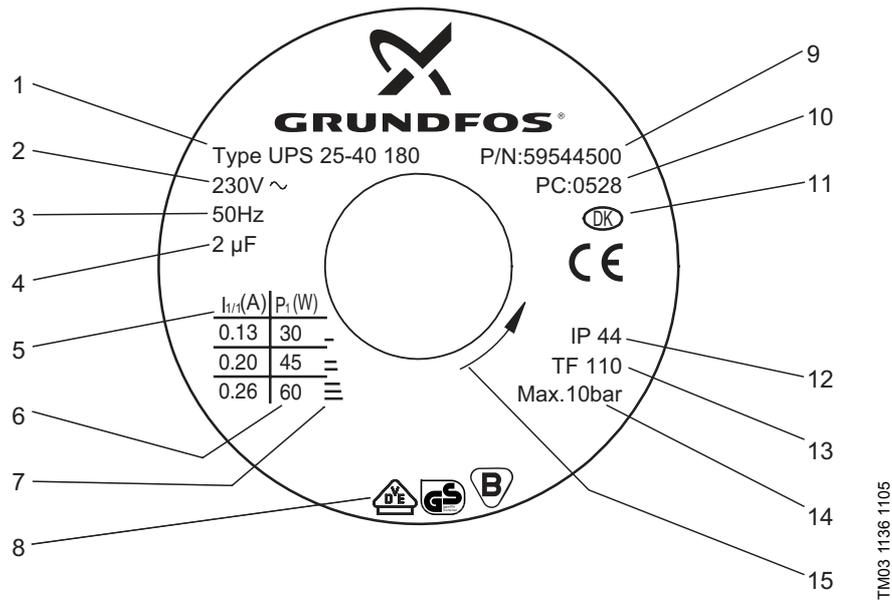
Example: A pumped liquid consisting of 50% glycol at 20°C has a viscosity of approx. 10 cSt; consequently, the pump performance will be approx. 15% lower.

Identification

Type key

Example	UP	S	D	40	- 40	F
UP: Circulator pump						
Solar: Solar circulator pump						
Electric speed control						
Twin-head pump						
Nominal diameter (DN) of suction and discharge ports [mm]						
Maximum head [dm]						
Pipe connection: = Pipe thread (no letter = pipe thread)						
F = Flange						
Pump housing: = Cast iron (no letter = cast iron)						
N = Stainless steel						
B = Bronze						
A = Pump housing with air separator, upward water flow						
K = Cold-water version						
KU = Cold-water version (foam filled terminal box and stator)						

Nameplate



Pos.	Description	Pos.	Description
1	Type designation	9	Product number
2	Voltage [V]	10	Production code: 1st and 2nd figures = year 3rd and 4th figures = week
3	Frequency [Hz]	11	Country of origin
4	Capacitor size [µF] (only single-phase pumps)	12	Enclosure class
5	Rated current [A]	13	Temperature class
6	Maximum input power P ₁ [W]	14	Maximum system pressure [bar]
7	Speed	15	Direction of rotation
8	Approvals		

The circulator pumps are recognizable by the colour of their nameplates:

- Black = standard circulator pump
- Blue = cold-water circulator pumps
- Yellow = solar circulator pumps
- Silver = stainless-steel circulator pumps
- Gold = bronze circulator pumps

Operating conditions

Liquid temperature

See data sheets for permissible liquid temperatures of individual pump types.

Standard version:

Standard pumps can be used at liquid temperatures up to 120°C for short periods (maximum 30 minutes at intervals of minimum four hours).

Temperatures: +2°C to +110°C
–25°C to +110°C.

Domestic hot-water version:

Temperatures: +2°C to +110°C.

We recommend you to keep the operating temperature as low as possible (e.g. +60°C) to avoid precipitation of calcium.

Cold-water version:

Standard pumps or special pump version, type K, depending on type/size.
Type KU, with foam-filled terminal box.

Temperatures: –25°C to +95°C
–25°C to +110°C.

Ambient and liquid temperatures

The ambient temperature for standard pumps with a permissible liquid temperature from +2°C to +110°C should always be lower than the liquid temperature, as otherwise condensation may form in the stator housing.

Do not cover the drain holes of an insulated pump if the liquid temperature is lower than the ambient temperature.

Liquid temperature [°C]	110	105	100	90	80	60	40	2
Max. ambient temperature [°C]	40							0

If a pump is not used during a period of frost, protect it to avoid damage.

Maximum system pressure

Pump with unions PN 10: 1.0 MPa (10 bar).

Flanged pump PN 6/10: 0.6/1.0 MPa (6/10 bar).

Pump with Grundfos flanges: 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 pump suction port:

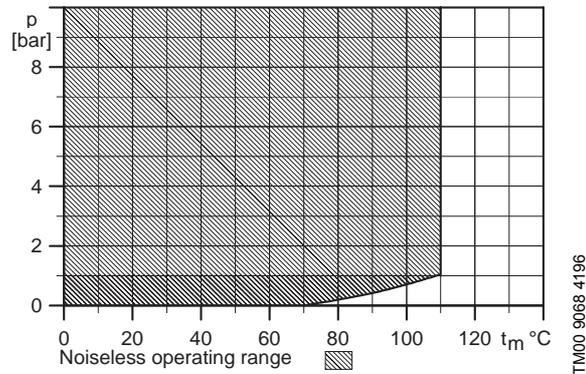
Liquid temperature	85°C	90°C	110°C
Min. inlet pressure	0.5 m head 0.049 bar	2.8 m head 0.27 bar	11.0 m head 1.08 bar

Location

For indoor use only. If the pump is not used during periods of frost, it must be protected to avoid damage.

Noiseless operation

In the grey-shaded part of the operating range the pump sound pressure level is below 43 dB(A).



Environment

Non-aggressive and non-explosive atmosphere.

Relative air humidity: Maximum 95%.

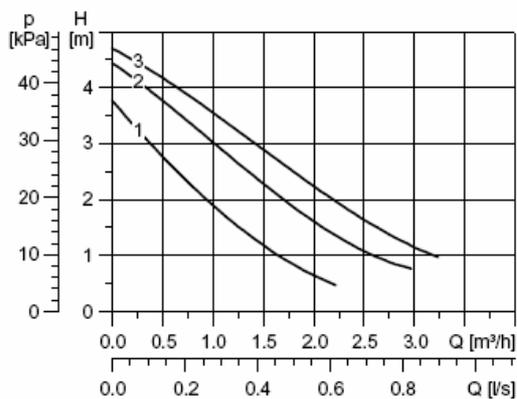
Disposal

This product or parts of it must be disposed of in an environmentally sound way:

1. Use the public or private waste collection service.
2. If this is not possible, contact the nearest Grundfos company or service workshop.

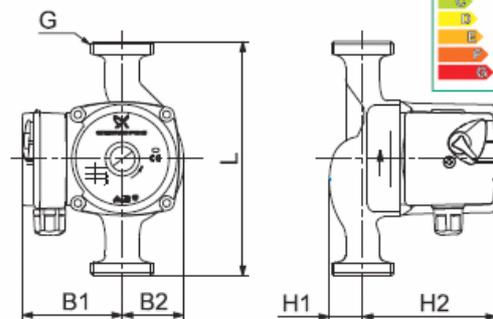
UPS 15-50

1 x 230 V, 50 Hz



TM00 9750 2105

Speed	P ₁ [W]	I _{1/1} [A]
3	50	0.23
2	45	0.20
1	35	0.16



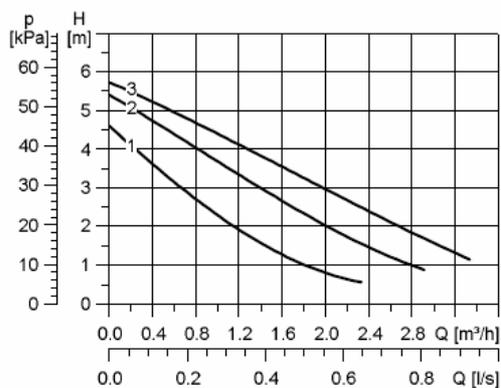
TM00 9386 2105 - TM03 0869 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: +2 °C to +110 °C (TF 110)

Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 15-50	130	28	102	75	51	1	2.3	2.5	0.004

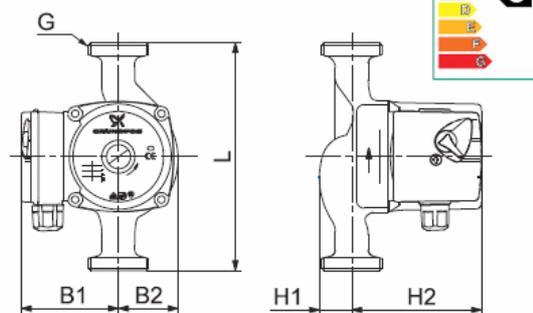
UPS 15-60

1 x 230 V, 50 Hz



TM04 3760 2409

Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	65	0.32



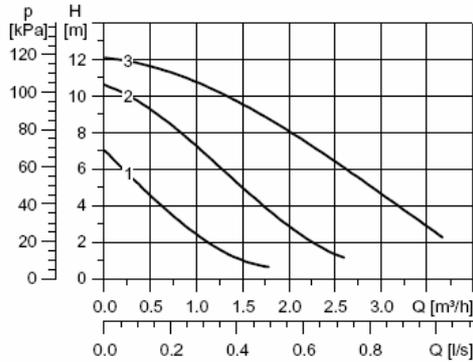
TM04 3847 5108 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: +2 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N (only UPS 20-60 130)

Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 15-60	130	28	102	75	51	1	2.3	2.5	0.004

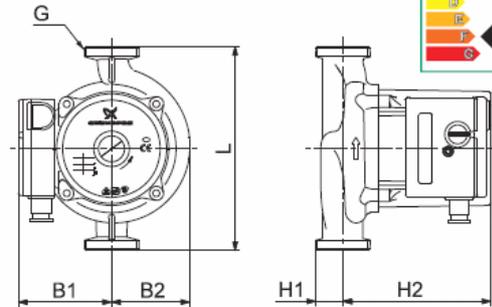
UPS 25-120

1 x 230 V, 50 Hz



TM02 2205 4708

Speed	P ₁ [W]	I _{1/1} [A]
3	235	1.02
2	180	0.78
1	120	0.53



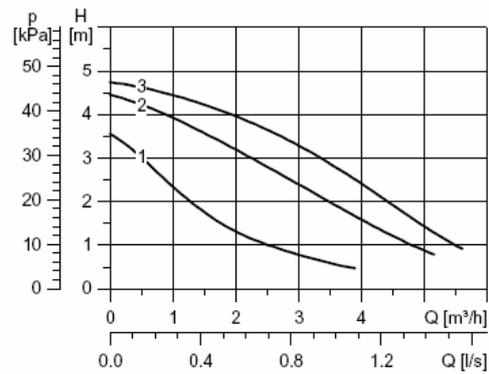
TM02 1325 2105 - TM03 0873 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: +2 °C to +95 °C (TF 110)

Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 25-120	180	32	130	82	69	1 1/2	4.4	4.6	0.006

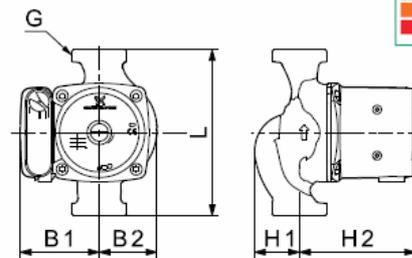
UPS 25-55

1 x 230 V, 50 Hz



TM04 3751 2409

Speed	P ₁ [W]	I _{1/1} [A]
3	85	0.38
2	80	0.36
1	65	0.30



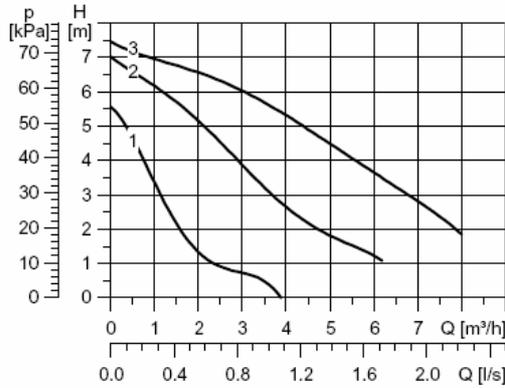
TM04 3847 5108 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N

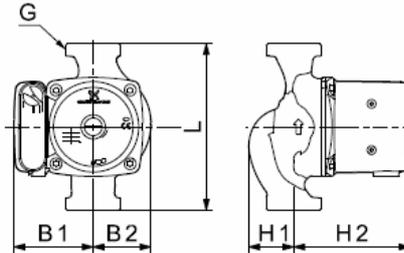
Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 25-55 (N)	180	46	125	85	62	1 1/2	4.6	4.7	0.008

UPS 25-80

1 x 230 V, 50 Hz



Speed	P_1 [W]	$I_{1/1}$ [A]
3	165	0.70
2	155	0.70
1	110	0.50



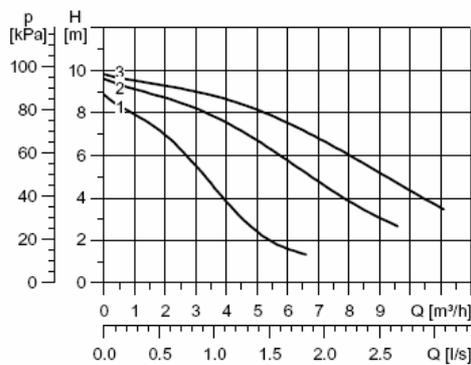
TM04 3847 5108 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N

Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m ³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 25-80 (N)	180	46	125	85	62	1 1/2	4.4	4.7	0.008

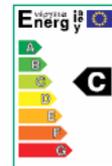
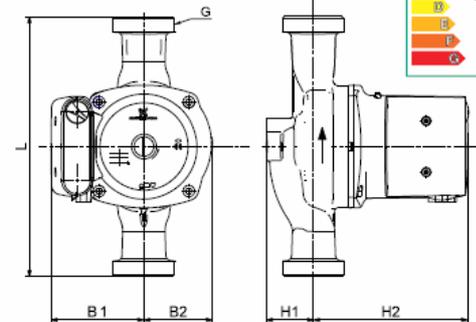
UPS 25-100

1 x 230 V, 50 Hz



Speed	P_1 [W]	$I_{1/1}$ [A]
3	345	1.52
2	340	1.50
1	280	1.30

The pump has a built-in thermal switch and requires no additional motor protection.



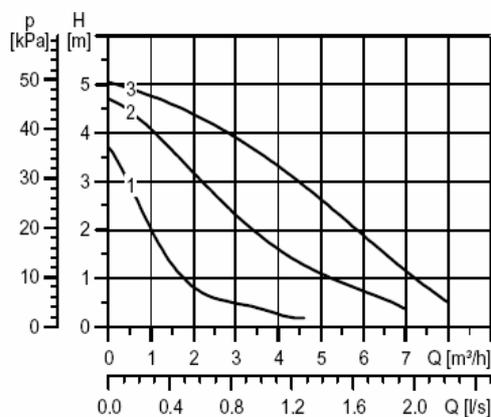
TM04 2809 3408 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N (only UPS 32-100 180)

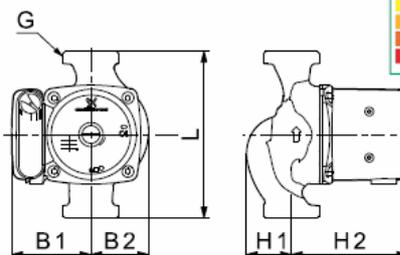
Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m ³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 25-100	180	47	150	90	68	1 1/2	6.3	6.8	0.012

UPS 32-55

1 x 230 V, 50 Hz



Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	65	0.32



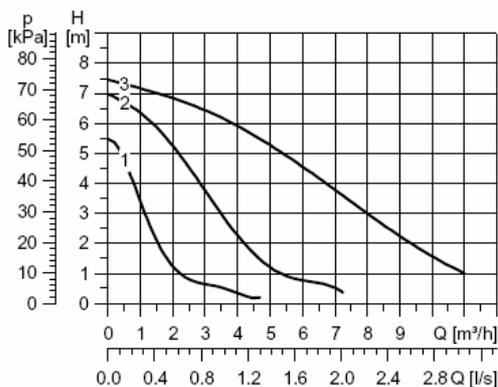
TM04 3847 5108 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N

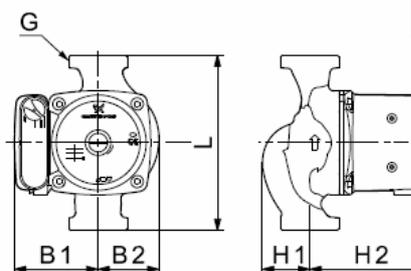
Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m ³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 32-55 (N)	180	48	125	85	62	2	4.6	4.9	0.008

UPS 32-80

1 x 230 V, 50 Hz



Speed	P ₁ [W]	I _{1/1} [A]
3	220	0.98
2	200	0.90
1	135	0.60



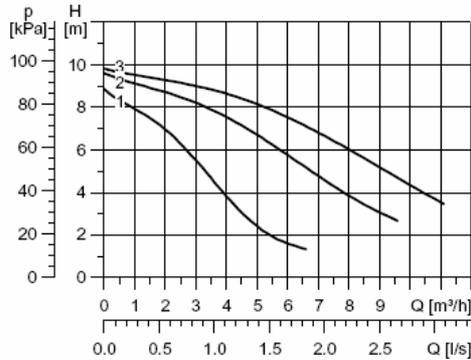
TM04 3847 5108 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N

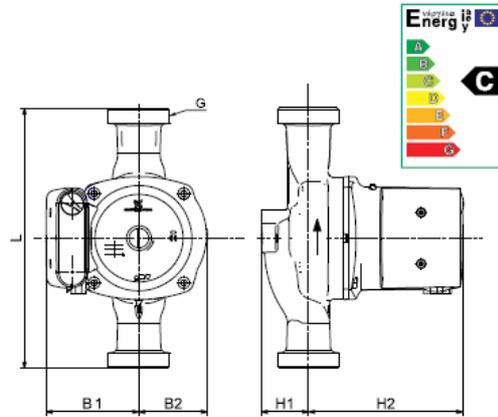
Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m ³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 32-80 (N)	180	48	125	85	62	2	4.6	4.9	0.008

UPS 32-100

1 x 230 V, 50 Hz



TM04 3614 4708



TM04 2809 3408 - TM03 0870 0705

Speed	P ₁ [W]	I _{1/1} [A]
3	345	1.52
2	340	1.50
1	280	1.30

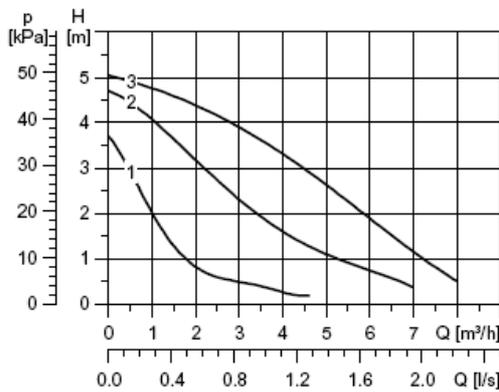
The pump has a built-in thermal switch and requires no additional motor protection.

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N (only UPS 32-100 180)

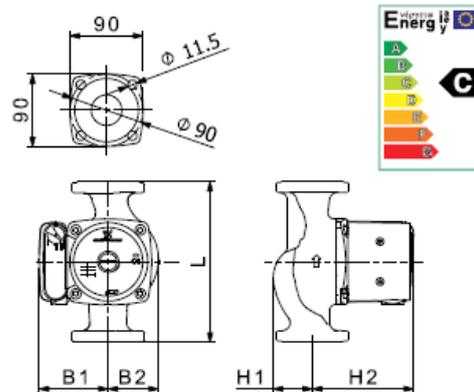
Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 32-100 (N)	180	47	150	90	68	2	6.4	7.0	0.012

UPS 36-50 F

1 x 230 V, 50 Hz



TM04 3760 2409



TM04 3843 0109 - TM03 0870 0705

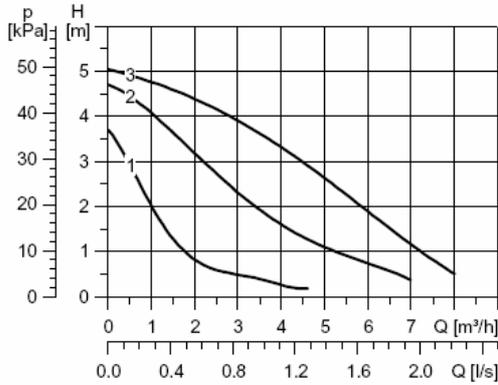
Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	75	0.32

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)

Pump type	Dimensions [mm]						Weights [kg]		Ship. vol. [m³]
	L	H1	H2	B1	B2	G	Net	Gross	
UPS 36-50 F	200	48	125	85	62	-	5.7	6.0	0.010

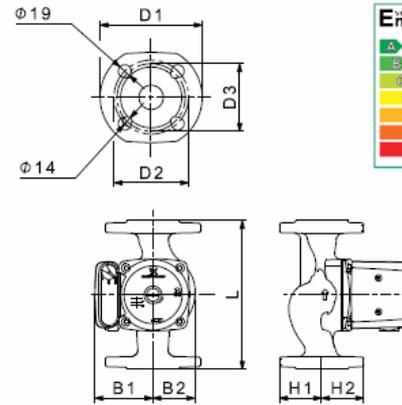
UPS 40-50 F

1 x 230 V, 50 Hz



TM04 3760 2409

Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	75	0.32



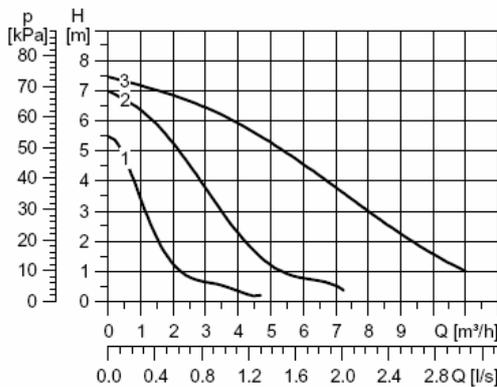
TM04 6005 4609 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N (only UPS 40-50 F 250)

Pump type	Dimensions [mm]									Weights [kg]		Ship. vol. [m³]
	L	D1	D2	D3	H1	H2	B1	B2	G	Net	Gross	
UPS 40-50 F (N)	250	150	110	100	67	125	85	62	-	8.0	8.4	0.011

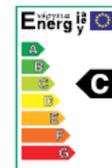
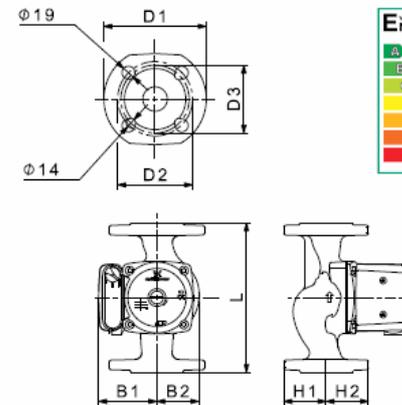
UPS 40-80 F

1 x 230 V, 50 Hz



TM04 3761 2409

Speed	P ₁ [W]	I _{1/1} [A]
3	220	0.98
2	200	0.90
1	135	0.60



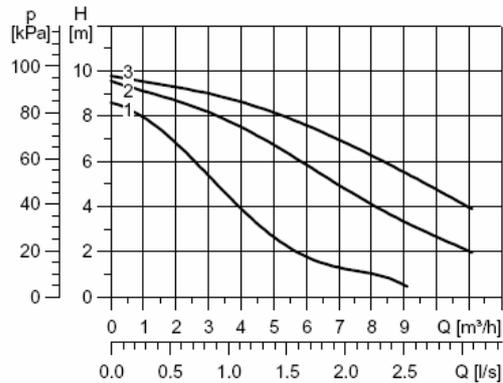
TM04 6005 4609 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N (only UPS 40-80 F 250)

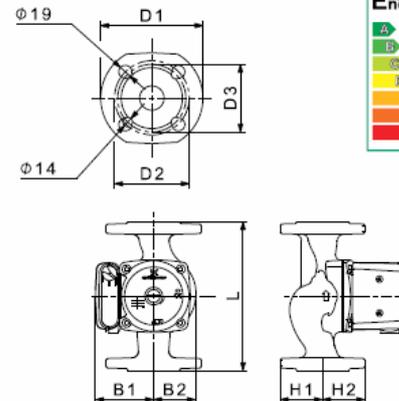
Pump type	Dimensions [mm]									Weights [kg]		Ship. vol. [m³]
	L	D1	D2	D3	H1	H2	B1	B2	G	Net	Gross	
UPS 40-80 F (N)	250	150	110	100	67	125	85	62	-	8.1	8.5	0.011

UPS 40-100 F

1 x 230 V, 50 Hz



TM04 36 16 4708



TM04 6006 4609 - TM03 0670 0705

Speed	P ₁ [W]	I _{1/1} [A]
3	345	1.52
2	340	1.50
1	280	1.30

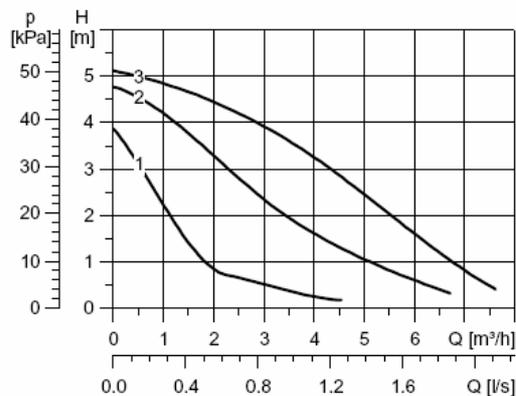
The pump has a built-in thermal switch and requires no additional motor protection.

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)
 Also available with: Stainless-steel pump housing, type N (only UPS 40-100 F 250)

Pump type	Dimensions [mm]									Weights [kg]		Ship. vol. [m³]
	L	D1	D2	D3	H1	H2	B1	B2	G	Net	Gross	
UPS 40-100 F (N)	250	150	110	100	62	150	90	68	-	9.6	10.4	0.016

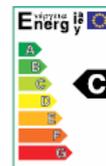
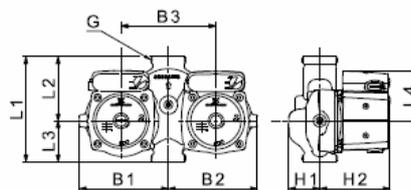
UPSD 32-50

1 x 230 V, 50 Hz



TM04 3793 0000

Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	75	0.32



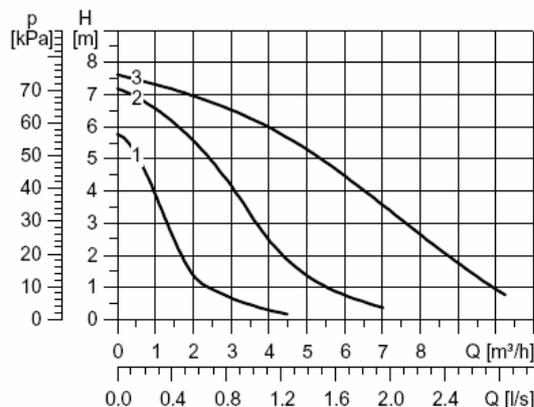
TM04 3841 5108 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)

Pump type	Dimensions [mm]									Weights [kg]		Ship. vol. [m³]	
	L1	L2	L3	L4	H1	H2	B1	B2	B3	G	Net		Gross
UPSD 32-50	180	110	70	85	53	120	166	152	162	2	10.7	11.1	0.018

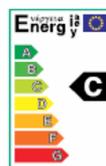
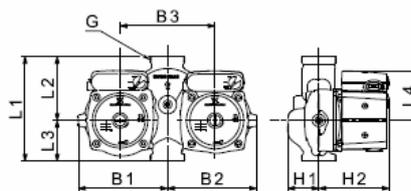
UPSD 32-80

1 x 230 V, 50 Hz



TM04 3794 0000

Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	75	0.32



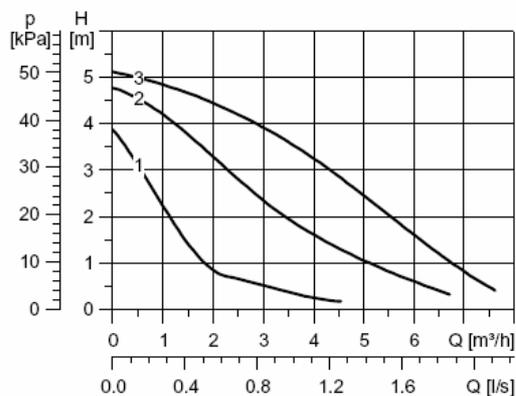
TM04 3841 5108 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)

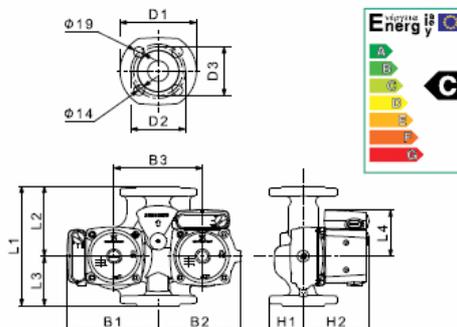
Pump type	Dimensions [mm]									Weights [kg]		Ship. vol. [m³]	
	L1	L2	L3	L4	H1	H2	B1	B2	B3	G	Net		Gross
UPSD 32-80	180	110	70	85	53	120	166	152	162	2	10.8	11.3	0.015

UPSD 40-50 F

1 x 230 V, 50 Hz



TM04 3793 0000



TM04 6006 4609 - TM03 0870 0705

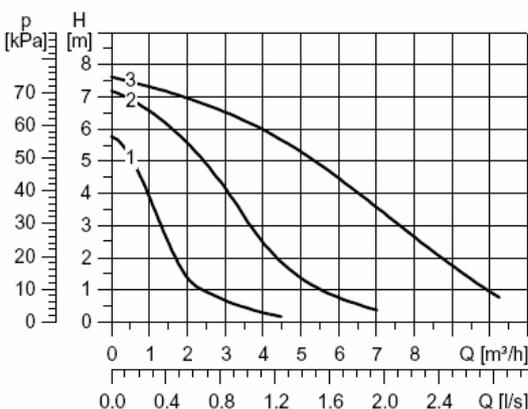
Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)

Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	75	0.32

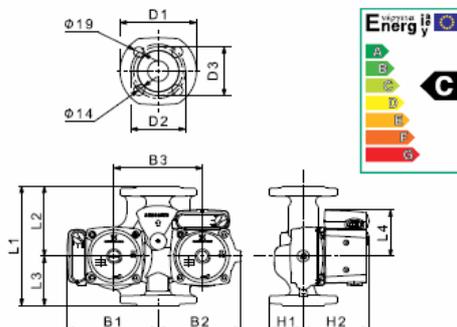
Pump type	Dimensions [mm]													Weights [kg]		Ship. vol. [m ³]
	L1	D1	D2	D3	L2	L3	L4	H1	H2	B1	B2	B3	G	Net	Gross	
UPSD 40-50 F	250	150	110	100	129	121	85	67	120	166	152	162	-	14.1	14.8	0.021

UPSD 40-80 F

1 x 230 V, 50 Hz



TM04 3794 0000



TM04 6006 4609 - TM03 0870 0705

Connections: See *Pipe connections* on page 51
 System pressure: Max. 10 bar
 Liquid temperature: -25 °C to +110 °C (TF 110)

Speed	P ₁ [W]	I _{1/1} [A]
3	105	0.46
2	100	0.44
1	75	0.32

Pump type	Dimensions [mm]													Weights [kg]		Ship. vol. [m ³]
	L1	D1	D2	D3	L2	L3	L4	H1	H2	B1	B2	B3	G	Net	Gross	
UPSD 40-80 F	250	150	110	100	129	121	85	67	120	166	152	162	-	14.2	14.8	0.021

PUMP CONNECTIONS & FITTINGS

Screwed Connections

Pump Model	Pump Product Code	Pressure Rating (Bar)	Pump Connection	Union Connection BSPF	Union Product Code
UPS 15-50 UPS 15-60 UPS 25-120 UPS 25-55 UPS 25-80 UPS 25-100	96281426 96281478 52588336 95906404 95906429 95906480	10	1½" BSPM	1" 1¼"	529922 529821
UPS 32-55 UPS 32-80 UPS 32-100	95906409 95906442 95906500	10	2" BSPM	1¼"	509922
UPSD 32-50 UPSD 32-80	95906413 95906455	10	2" BSPM	1¼"	509922

Fittings are not included in the box with circulators, and must be ordered separately.

Flanged Connections

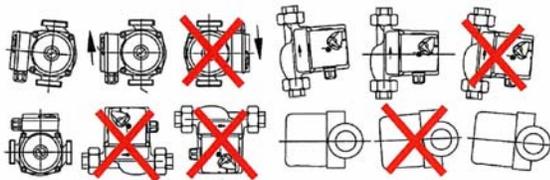
Pump Model	Pump Product Code	Pressure Rating (Bar)	Pump Connection	Pipe Connection BSPF	Flange Product Code
UPS36-50F	95906419	6	Square Flange	1¼" 1½" 2"	509903 509904 509905
UPS 40-50F UPS 40-80F UPS 40-100F	95906420 95906463 95906486	10(4) *	Flanged to BS4504 6/11 NB 40mm	1½" 2" Special	539701 91200212
UPSD 40-50F UPSD 40-80F UPSD 40-100F	95906424 95906464 95906487	10(4) *	Flanged to BS4504 6/11 NB 40mm	1½" 2" Special	539701 91200212

* 4 bar rated when used with special 2" Flange.

Installation/Specification

GENERAL

It is preferable to install Grundfos circulators in a vertical pipe pumping upwards. This position ensures that the pump shaft is horizontal, which reduces the thrust bearing load and ensures positive air purging from both the rotor chamber and impeller housing. Pumping downwards in a vertical pipe is not recommended, as this may lead to air locking of the pump, with resultant loss of performance.



Where pumps can only be installed in horizontal pipe work, it is imperative that the pump shaft is horizontal, or slightly higher at the vent plug end. The shaft must not fall below the horizontal plane, even by a few degrees, as this causes premature wear of the top bearing and shaft. Pumps must never be installed with the shaft in a vertical plane, as this may lead to dry running of the top bearing, noise and possible pump failure.

SITING THE PUMP

- To avoid sediment do not fit the pump in the lowest part of the system.
- Fit isolating valves either side of the pump.
- To prevent noise avoid sharp bends either side of the pump.
- Position the motor away from heat sources, and allow access for removing the pump head from base and terminal box from the head.
- Always try to ensure that the terminal box is not adjacent to hot surfaces. Ensure pump speed switch is accessible on UPS models.
- In open-vented systems position the pump so that it neither pumps over into the feed and expansion tank nor causes air to be drawn down the vent pipe. Generally, this means fitting the pump in the flow pipe with the vent on the inlet side of the pump.
- In systems where all the flow can be stopped while the pump is running, e.g. in systems fitted with thermostatic radiator valves, a bypass should be fitted between flow and return pipes, to ensure water flow through the boiler and pump at all times. Approximately 7.5% of maximum pump capacity.
- Ensure that the pump is not stressed by the pipe work and that the pipe work is properly supported either side of the pump, if necessary use proprietary mounting brackets.

OPERATING CONDITIONS

UPS 25 and UPS 32 are rated for a maximum system pressure of 10 bar (145psi). All UP/UPS 40 models are suitable for a maximum system pressure of 10 bars (145psi) except those models fitted with 2" BSPF counter flanges which have a 4 bar rating (58psi). Model UPS 36-50F is 6 bar rated. Water temperature range: -25°C to +110°C, except for UPS 15-50 and UPS 15-60 models which are +2°C to +110°C. The minimum inlet pressure for all models should be 0.5m at 82°C, 2.8m at 90°C and 11.0m at 110°C to avoid cavitation and to ensure quiet running of the pump. The minimum inlet pressure must be available at the pump inlet during operation to ensure satisfactory bearing life and to avoid cavitation.

MATERIAL SPECIFICATION

Component	Material	Grade
Pump housing:	Cast Iron	EN-GJL-150/200
Stator housing:	Aluminium alloy	ALSi10Cu2
Shaft:	Ceramic	
Split cone:	Stainless steel	304
Impeller:	Composite	PP 30% GF
Neck ring:	Stainless steel	304
Rotor can:	Stainless steel	304
Rotor cladding:	Stainless steel	304
'O' rings:	Rubber	EPDM
Radial bearing:	Ceramic	
Thrust bearing:	Carbon	

MOTOR DATA

Standard voltages:	240V Single Phase 50Hz
Motor enclosure class:	IP44
Winding insulation:	Class H on all models.

Single phase motors are protected by either thermal or impedance protection. No external protection is required.

FLOW ADJUSTMENT

UPS/UPSD models are fitted with a three speed selector switch on the terminal box.

PIPE CONNECTIONS

Grundfos circulators are not supplied with unions in the pump box. Please order these separately if required.

Office Addresses

Leighton Buzzard (Head Office): Grovebury Road, Leighton Buzzard, Beds. LU7 4TL. Tel: 01525 850000 Fax: 01525 850011

Leigh Office: Orford Court, Greenfold Way, Leigh, Lancs. WN7 3XJ. Tel: 01942 263600 Fax: 01942 605970

Livingston Office: Fleming Rd, Kirton Campus, Livingston, West Lothian, Scotland EH54 7BN. Tel: 01506 461666 Fax: 01506 461555

Commercial Building Services

Livingston Office: Tel: 01506 461666 Fax: 01506 461555 Email: uklivquotes@grundfos.com

Leigh Office: Tel: 01942 263600 Fax: 01942 605970 Email: ukcbsleigh@grundfos.com

Domestic Building Services

Leighton Buzzard Office: Tel: 01525 775402 Fax: 01525 775236 Email: ukdbs@grundfos.com

Industrial Distribution, Water & Waste

Leighton Buzzard Office: Tel: 01525 775450 Fax: 01525 775224 Email: ukindustry@grundfos.com

Leigh Office: Tel: 01942 263899, Email: ukwatergroup@grundfos.com

Original Equipment Manufacturer

Leighton Buzzard Office: Tel: 01525 775450 Fax: 01525 775224 Email: ukindustry@grundfos.com

Spares Team

Leigh Office: Tel: 01942 263490, Fax: 01942 603462 Email: ukspares@grundfos.com

Grundfos Europump (Service)

Mobile Service: Tel: 01942 663628 Fax: 01942 602830

Service Warranty Workshop (Leigh): Tel: 01942 263627 Fax: 01942 603462 Email: service@europump.co.uk

Grundfos Control Solutions (Control Panels)

Telephone: 01525 850000 Fax: 01525 850011 email: ukpanels@grundfos.com

Grundfos Watermill (Shower Pumps)

Telephone: 0845 2000 912 Fax: 00845 2000 913 email: sales@watermillshowers.co.uk

01/12/2009

General Sales Enquiries: uk-sales@grundfos.com

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