

UPS 15-60
$1 \times 230 \mathrm{~V}, 50 \mathrm{~Hz}$


| Pump type | Dimensions [mm] |  |  |  |  |  | Weights [kg] |  | $\begin{gathered} \text { Ship. vol. } \\ {\left[\mathrm{m}^{3}\right]} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | L | H1 | H2 | B1 | B2 | G | Net | Gross |  |
| UPS 15-60 | 130 | 28 | 102 | 75 | 51 | 1 | 2.3 | 2.5 | 0.004 |



UPS 25-55
$1 \times 230 \mathrm{~V}, 50 \mathrm{~Hz}$


Connections:
System pressure:
Liquid temperature:
Also available with:

See Pipe connections on page 51
Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110)
Stainless-steel pump housing, type N

| Pump type | Dimensions [mm] |  |  |  |  |  | Weights [kg] |  | $\begin{gathered} \text { Ship. vol. } \\ {\left[\mathrm{m}^{3}\right]} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | L | H1 | H2 | B1 | B2 | G | Net | Gross |  |
| UPS 25-55 (N) | 180 | 46 | 125 | 85 | 62 | $11 / 2$ | 4.6 | 4.7 | 0.008 |



UPS 25-100
$1 \times 230 \mathrm{~V}, 50 \mathrm{~Hz}$



Connections:
System pressure:
Liquid temperature:
Also available with:

See Pipe connections on page 51
Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110)
Stainless-steel pump housing, type N

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




| Pump type | Dimensions [mm] |  |  |  |  |  | Weights [kg] |  | $\begin{gathered} \text { Ship. vol. } \\ {\left[\mathrm{m}^{3}\right]} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 $36-50 \mathrm{~F}$


| Speed | $\mathbf{P}_{\mathbf{1}}[W]$ | $\mathbf{I}_{\mathbf{1 / 1}}[\mathrm{A}]$ |
| :---: | :---: | :---: |
| 3 | 105 | 0.46 |
| 2 | 100 | 0.44 |
| 1 | 75 | 0.32 |



Connections:
System pressure:
Liquid temperature:

See Pipe connections on page 51
Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110)

| Pump type | Dimensions [mm] |  |  |  |  |  | Weights [kg] |  | $\begin{gathered} \text { Ship. vol. } \\ {\left[\mathrm{m}^{3}\right]} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | L | H1 | H2 | B1 | B2 | G | Net | Gross |  |
| UPS 36-50 F | 200 | 48 | 125 | 85 | 62 | - | 5.7 | 6.0 | 0.010 |




TM04 6005 4609-TM03 08700705

Connections:
System pressure:
Liquid temperature:
Also available with:

See Pipe connections on page 51
Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110)
Stainless-steel pump housing, type N (only UPS 40-50 F 250)

| Pump type | Dimensions [mm] |  |  |  |  |  |  |  |  | Weights [kg] |  | $\begin{gathered} \text { Ship. vol. } \\ {\left[\mathrm{m}^{3}\right]} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 |



| Speed | $\mathbf{P}_{\mathbf{1}}[W]$ | $\mathbf{I}_{\mathbf{1 / 1}}[\mathrm{A}]$ |
| :---: | :---: | :---: |
| 3 | 220 | 0.98 |
| 2 | 200 | 0.90 |
| 1 | 135 | 0.60 |



Connections:
System pressure:
Liquid temperature:
Also available with:

See Pipe connections on page 51
Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110)
Stainless-steel pump housing, type N (only UPS 40-80 F 250)

| Pump type | Dimensions [mm] |  |  |  |  |  |  |  |  | Weights [kg] |  | Ship. vol. $\left[\mathrm{m}^{3}\right.$ ] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 |



| Speed | $\mathbf{P}_{\mathbf{1}}[\mathbf{W}]$ | $\mathbf{I}_{\mathbf{1 / 1}}[\mathbf{A}]$ |
| :---: | :---: | :---: |
| 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 6006 4609-TM03 08700705

Connections:
System pressure:
Liquid temperature:
Also available with:

See Pipe connections on page 51 Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110 )
Stainless-steel pump housing, type N (only UPS 40-100 F 250)

| Pump type | Dimensions [mm] |  |  |  |  |  |  |  |  | Weights [kg] |  | $\begin{gathered} \text { Ship. vol. } \\ {\left[\mathrm{m}^{3}\right]} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 32-80
$1 \times 230 \mathrm{~V}, 50 \mathrm{~Hz}$



| 8 |
| :--- |
| 8 |
| 8 |
|  |


| Speed | $\mathbf{P}_{\mathbf{1}}[\mathbf{W}]$ | $\mathbf{I}_{\mathbf{1 / 1}}[\mathrm{A}]$ |
| :---: | :---: | :---: |
| 3 | 105 | 0.46 |
| 2 | 100 | 0.44 |
| 1 | 75 | 0.32 |

System pressure:
Liquid temperature:
Connections:
See Pipe connections on page 51
Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110)

| Pump type | Dimensions [mm] |  |  |  |  |  |  |  |  |  |  |  |  | Weights [kg] |  | Ship. vol.$\left[\mathrm{m}^{3}\right]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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
$1 \times 230 \mathrm{~V}, 50 \mathrm{~Hz}$



Connections:
System pressure:
Liquid temperature
See Pipe connections on page 51
Max. 10 bar
$-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ (TF 110)

| Speed | $\mathbf{P}_{\mathbf{1}}[\mathbf{W}]$ | $\mathbf{I}_{\mathbf{1 / 1}}[\mathrm{A}]$ |
| :---: | :---: | :---: |
| 3 | 105 | 0.46 |
| 2 | 100 | 0.44 |
| 1 | 75 | 0.32 |


| Pump type | Dimensions [mm] |  |  |  |  |  |  |  |  |  |  |  |  | Weights [kg] |  | Ship. vol.$\left[\mathrm{m}^{3}\right]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | $\begin{gathered} \hline \text { Pressure } \\ \text { Rating } \\ \text { (Bar) } \\ \hline \end{gathered}$ | Pump Connection | Union Connection BSPF | Union Product Code |
| :---: | :---: | :---: | :---: | :---: | :---: |
| UPS 15-50 <br> UPS 15-60 <br> UPS 25-120 <br> UPS 25-55 <br> UPS 25-80 <br> UPS 25-100 | 96281426 96281478 52588336 95906404 95906429 95906480 | 10 | $\begin{aligned} & 1 \frac{11 / 2 "}{\text { BSPM }} \end{aligned}$ | $\begin{gathered} 1^{1 "} \\ 11 / 4^{n} \end{gathered}$ | $\begin{aligned} & 529922 \\ & 529821 \end{aligned}$ |
| UPS 32-55 UPS 32-80 UPS 32-100 | $\begin{aligned} & 95906409 \\ & 95906442 \\ & 95906500 \end{aligned}$ | 10 | $\stackrel{2^{\prime \prime}}{\text { BSPM }}$ | 11/4" | 509922 |
| UPSD 32-50 <br> UPSD 32-80 | $\begin{aligned} & 95906413 \\ & 95906455 \end{aligned}$ | 10 | $\begin{aligned} & 2^{\prime \prime} \\ & \text { BSPM } \end{aligned}$ | 11/4" | 509922 |

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

Flanged Connections

| Pump Model | $\begin{aligned} & \text { Pump } \\ & \text { Product } \\ & \text { Code } \end{aligned}$ | Pressure <br> Rating (Bar) | Pump Connection | Pipe Connection BSPF | Flange Product Code |
| :---: | :---: | :---: | :---: | :---: | :---: |
| UPS36-50F | 95906419 | 6 | Square <br> Flange | $\begin{aligned} & 11 / 4 " \\ & 11 /{ }^{\prime \prime} \\ & 2^{\prime \prime} \end{aligned}$ | 509903 509904 509905 |
| UPS 40-50F UPS 40-80F UPS 40-100F | $\begin{aligned} & 95906420 \\ & 95906463 \\ & 95906486 \end{aligned}$ | 10(4) * | Flanged to BS4504 6/11 NB 40 mm | $11 / 2^{\prime \prime}$ <br> 2" Special | $\begin{gathered} 539701 \\ 91200212 \end{gathered}$ |
| UPSD 40-50F UPSD 40-80F UPSD 40-100F | $\begin{aligned} & 95906424 \\ & 95906464 \\ & 95906487 \end{aligned}$ | 10(4) * | Flanged to BS4504 6/11 NB 40 mm | $11 / 2^{\prime \prime}$ <br> 2" Special | $\begin{gathered} 539701 \\ 91200212 \end{gathered}$ |

* 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

1. To avoid sediment do not fit the pump in the lowest part of the system.
2. Fit isolating valves either side of the pump.
3. To prevent noise avoid sharp bends either side of the pump.
4. Position the motor away from heat sources, and allow and access for removing the pump head from base and terminal box from the head.
5. Always try to ensure that the terminal box is not adjacent to hot surfaces. Ensure pump speed switch is accessible on UPS models.
6. 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.
7. 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 limes.
Approximately $7.5 \%$ of maximum pump capacity.
8. 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 ( 145 psi ) except those models fitted with 2 " BSPF counter flanges which have a 4 bar rating ( 58 psi).
Model UPS 36-50F is 6 bar rated.
Water temperature range: $-25^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$, except for UPS $15-50$ and UPS 15-60 models which are $+2^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$
The minimum inlet pressure for all models should be 0.5 m at $82^{\circ} \mathrm{C}$, 2.8 m at $90^{\circ} \mathrm{C}$ and 11.0 m at $110^{\circ} \mathrm{C}$ 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: $\quad 240 \mathrm{~V}$ Single Phase 50 Hz
Motor enclosure class:
Winding insulation:

IP44
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.

