UNILIFT AP35B, AP50B

Installation and operating instructions





UNILIFT AP35B, AP50B Installation and operating instructions Other languages http://net.grundfos.com/qr/i/96004693



UNILIFT AP35B, AP50B

English (GB) Installation and operating instructions
Български (BG) Упътване за монтаж и експлоатация
Čeština (CZ) Montážní a provozní návod
Deutsch (DE) Montage- und Betriebsanleitung
Dansk (DK) Monterings- og driftsinstruktion
Eesti (EE) Paigaldus- ja kasutusjuhend
Español (ES) Instrucciones de instalación y funcionamiento
Suomi (FI) Asennus- ja käyttöohjeet
Français (FR) Notice d'installation et de fonctionnement
Ελληνικά (GR) Οδηγίες εγκατάστασης και λειτουργίας
Hrvatski (HR) Montažne i pogonske upute
Magyar (HU) Telepítési és üzemeltetési utasítás
Italiano (IT) Istruzioni di installazione e funzionamento
Lietuviškai (LT) Įrengimo ir naudojimo instrukcija
Latviešu (LV) Uzstādīšanas un ekspluatācijas instrukcija
Nederlands (NL) Installatie- en bedieningsinstructies
Polski (PL) Instrukcja montażu i eksploatacji

Português (PT) Instruções de instalação e funcionamento
Română (RO) Instrucțiuni de instalare și utilizare
Srpski (RS) Uputstvo za instalaciju i rad
Svenska (SE) Monterings- och driftsinstruktion
Slovensko (SI) Navodila za montažo in obratovanje
Slovenčina (SK) Návod na montáž a prevádzku
Türkçe (TR) Montaj ve kullanım kılavuzu
Українська (UA) Інструкції з монтажу та експлуатації
中文 (CN) 安装和使用说明书
Bahasa Indonesia (ID) Petunjuk pengoperasian dan pemasangan
Macedonian (MK)
Упатства за монтирање и ракување
العربية (AR) العربية (AR) معربية التركيب و التشغيل 372
Δnnendiy Δ 384

English (GB) Installation and operating instructions

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1. General Information



Read this document before you install the product. Installation and operation must comply with local regulations and accepted codes of good practice.



This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

1.1 Hazard statements

The symbols and hazard statements below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.



DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious personal injury.



CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

The hazard statements are structured in the following way:



SIGNAL WORD

Description of the hazard

Consequence of ignoring the warning

Action to avoid the hazard.

1.2 Notes

The symbols and notes below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.



Observe these instructions for explosionproof products.



A blue or grey circle with a white graphical symbol indicates that an action must be taken.



A red or grey circle with a diagonal bar, possibly with a black graphical symbol, indicates that an action must not be taken or must be stopped.



If these instructions are not observed, it may result in malfunction or damage to the equipment.



Tips and advice that make the work easier.

2. Receiving the product

WARNING Falling objects



Death or serious personal injury

- Keep the product in a stable position during unpacking.
- Wear personal protective equipment.

2.1 Inspecting the product

Check that the product received is in accordance with the order.

Check that the voltage and frequency of the product match voltage and frequency of the installation site.

3. Installation requirements

CAUTION

Toxic material Minor or moderate personal injury



The product will be classified as contaminated if it has been used for a liquid which is injurious to health or toxic. Wear personal protective equipment.



Installation must be carried out by specially trained persons and according to local regulations.



According to EN 60335-2-41/A2:2010, this product with 5 m of mains cable must only be used for indoor applications.

3.1 Location

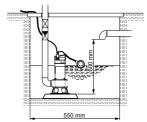


Always have at least 3 m free cable above liquid level. This limits the installation depth to 7 m for pumps with 10 m cable and to 2 m for pumps with 5 m cable.

3.1.1 Minimum space

The pit, basin or tank must be sized according to the relation between the water flow to the pit, basin or tank and the pump performance.

When the pump is installed in a permanent installation with a float switch, the minimum dimensions of the pit, basin or tank must be as shown in fig. Minimum pit dimensions when the float switch is set to the minimum free cable length to ensure free movability of the float switch. The float switch is set to the minimum free cable length. See section Adjusting the float switch cable length.



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Minimum pit dimensions when the float switch is set to the minimum free cable length

Related information

3.2.7 Adjusting the float switch cable length

3.2 Mechanical installation

DANGER Electric shock



Death or serious personal injury

- Switch off the power supply before starting any work on the product.
- Make sure that the power supply cannot be accidentally switched on.

CAUTION

Sharp element

Minor or moderate personal injury

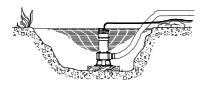
- Wear personal protective equipment.
- Make sure that persons cannot come into contact with the pump impeller.



Do not install the pump hanging from the electric cable or the outlet pipe.

3.2.1 Foundation

Place the pump on a plate or on bricks so that the inlet strainer is free of sludge, mud or similar materials. See fig. Place the pump on a plate.



Place the pump on a plate

3.2.2 Lifting the pump



Do not pull or lift the product by the power cable.

Lift the pump using the pump handle. Do not lift the pump by the power cable or by the outlet pipe or hose.

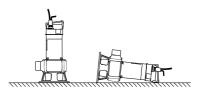
If the pump is installed in a well or tank, lower and lift it by means of a wire or chain fastened to the pump handle

3.2.3 Positioning the pump

The pump can be used in vertical or horizontal position. See fig. Position of the pump.

During continuous operation, the motor and the pump inlet must always be completely covered by the pumped liquid.

During intermittent operation, the motor must always be half submerged into the pumped liquid.



Position of the pump

When the pipe or hose has been connected, place the pump in its operating position.

Position the pump so that the pump inlet will not be blocked or partly blocked by sludge, mud or similar materials.

In the case of permanent installation, the pit must be cleared of sludge, pebbles, etc. before the pump is installed.

3.2.4 Pipe connection

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For permanent installation, we recommend that you fit a union, a non-return valve and an isolating valve in the outlet pipe.

3.2.5 Installation on auto coupling

See figs A and B in the Appendix.

Pumps for permanent installation can be installed on a stationary auto coupling and operated completely or partially submerged in the pumped liquid.

- Drill mounting holes for guide rail bracket on the inside of the pit and fasten the guide rail bracket provisionally with two screws.
- Place the auto coupling base unit on the bottom of the pit. Use a plumb line to establish the correct positioning. Fasten with heavy-duty expansion bolts. If the bottom of the pit is uneven, the autocoupling base unit must be supported so that it is level when being fastened.
- Assemble the outlet line in accordance with the generally accepted procedures and without exposing the line to distortion or tension.
- 4. Knock the guide rails on to the spigots of the bottom part of the auto coupling. Bevel the inside of the guide rails to facilitate installation. The guide rails must fit tightly on the spigots. We recommend 3/4" medium size pipes as guide rails.
- 5. Adapt the length of the guide rails to fit precisely the bracket at the top.

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Unscrew the provisionally fastened guide rail bracket, fit it on top of the guide rails and finally fasten it firmly to the pit wall.



The guide rails must not have any axial play as this would cause noise during pump operation.

- Clean out debris from the pit before lowering the pump into the pit.
- Fit the auto-coupling half on to the outlet of the pump. Then slide the guide bar of this coupling half between the guide rails and lower the pump into the pit by means of a chain. When the pump reaches the auto-coupling base unit, the pump will automatically connect tightly.
- 9. Hang up the end of the chain on a suitable hook at the top of the pit.
- 10. Adjust the length of the motor cable by coiling it up on a relief fitting, so the cable is not damaged during operation. Fasten the relief fitting to a suitable bracket at the top of the pit. Make sure that the cables are not sharply bent or pinched.



The end of the cable must not be submerged, as water may penetrate through the cable into the motor.

3.2.6 Free-standing installation

See the appendix for dimensional drawing.

For free-standing installation of the pumps, fit a 90° elbow to the outlet. The pump can be installed with a hose or rigid pipe and valves.

In order to facilitate service of the pump, fit a flexible union or coupling to the outlet pipe for easy separation.

If a hose is used, make sure that the hose does not buckle and that the inside diameter of the hose matches that of the outlet.

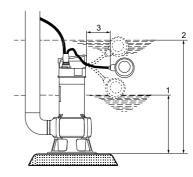
If a rigid pipe is used, the union or coupling, nonreturn valve and isolating valve must be fitted in the sequence mentioned, as seen from the pump side. If the pump is installed in muddy conditions or on uneven ground, we recommend that you support the pump on bricks.

3.2.7 Adjusting the float switch cable length

For pumps supplied with a float switch, the difference in level between start and stop can be adjusted by changing the free cable length between the float switch and the pump handle.

- An increased free cable length will result in fewer starts and stops and a large difference in level.
- A reduced free cable length will result in more frequent starts and stops and a small difference in level.

The stop level must be above the pump inlet to prevent the pump from taking in air.



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Start and stop levels

Pos.	Description
1	Stop
2	Start
3	L

The start and stop levels vary according to the cable length.

UNI	UNILIFT AP B start and stop levels [mm]			
	Cable length (L) min. 100 mm		Cable length (L) max. 300 mm	
Start	Stop	Start	Stop	
500	300	550	150	

Intermittent operation

During intermittent operation, the motor must always be half submerged into the pumped liquid.

The pump is allowed to run for maximum 5 minutes per 30 minutes without the motor being submerged in the liquid.

Continuous operation

During continuous operation, the motor and the pump inlet must always be completely covered by the pumped liquid.

3.3 Electrical connection

DANGER Electric shock



Death or serious personal injury

- Switch off the power supply before you start any work on the product.
- Make sure that the power supply cannot be switched on accidentally.

DANGER

Electric shock



The installation must be fitted with a residual-current device (RCD) with a tripping current less than 30 mA.

DANGER

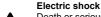
Electric shock

Death or serious personal injury

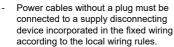


- Make sure that the power supply plug delivered with the product is in compliance with local regulations.
- The plug must have the same protective earth (PE) connection system as the power outlet. If not, use a suitable adapter if allowed by local regulations.

DANGER



Death or serious personal injury





All electrical connections must be carried out by a qualified person in accordance with local regulations.



Depending on local regulations, a pump with minimum 10 m of mains cable must be used if the pump is used as a portable pump for different applications.

Make sure that the product is suitable for the supply voltage and frequency available at the installation site. Voltage and frequency are marked on the pump nameplate.

The pump must be connected to an external main switch. If the pump is not installed close to the switch, the switch must be of a lockable type.

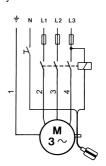
Three-phase pumps must be connected to an external motor-protective circuit breaker with differential release. The rated current of the motor-protective circuit breaker must correspond to the electrical data marked on the pump nameplate.

If a level switch is connected to a three-phase pump, the motor-protective circuit breaker must be magnetically operated.

Single-phase pumps incorporate thermal overload protection and require no additional motor protection.



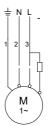
If the motor is overloaded, it will stop automatically. When the motor has cooled to normal temperature, it restarts automati-



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Wiring diagram

Pos.	Description
1	Yellow and green
2	Grey
3	Brown
4	Black



40,400,07

Wiring diagram

Pos.	Description
1	Yellow and green
2	Blue
3	Brown

3.4 Checking the direction of rotation

Three-phase pumps only

Check the direction of rotation every time the pump is connected to a new installation.

- Position the pump so that you can observe the impeller.
- 2. Start the pump for a short period.
- Observe the rotation of the impeller. The correct direction of rotation is indicated by an arrow on the top of the motor (clockwise when seen from the bottom). If the impeller rotates in the wrong direction, reverse the direction of rotation by interchanging two of the phases to the motor.

If the pump is connected to a pipe system, check the direction of rotation in this way:

- Start the pump and check the quantity of water or the pressure.
- Stop the pump and interchange two of the phases to the motor.
- Start the pump and check the quantity of water or the pressure.
- 4. Stop the pump.
- Compare the results taken under points 1 and 3.
 The largest quantity of water indicates the correct direction of rotation

4. Starting up the product

\wedge

DANGER Electric shock

Death or serious personal injury

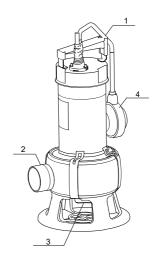
 Do not use the pump in swimming pools, garden ponds or similar places if there are people in the water.



The pump may be run briefly to check the direction of rotation without being submerged in the pumped liquid.

- Before starting the pump, submerge the pump inlet in the pumped liquid.
- Open the isolating valve, if fitted, and check the level switch setting.

5. Product introduction



TM03418

UNILIFT AP35B, AP50B

Pos.	Description
1	Handle with clamp
2	Outlet
3	Inlet
4	Level switch

5.1 Intended use

The Grundfos UNILIFT AP pump is a single-stage submersible pump designed for pumping wastewater.

The pump is capable of pumping water which contains a limited quantity of solids, however not stones and similar materials, without being blocked or damaged.

The pump is available for automatic as well as manual operation and can be installed in a permanent installation or used as a portable pump.

Permanent installation can be on a stationary auto coupling or as a free-standing pump.

Applications	UNILIFT AP35B	UNILIFT AP50B
Drainage of flooded cellars or buildings	•	•
Groundwater lowering	•	•
Pumping of water from drain water collecting pits	•	•
Pumping of water from surface water pits with inflow from roof gutters, shafts, tunnels, etc.	•	•
Emptying and filling of swim- ming pools, ponds, pits etc.	•	•
Pumping of wastewater from washing machines, baths, sinks etc. from low-lying parts of buildings up to sewer level	•	•
Pumping of fibre-containing wastewater from laundries and light industries	•	•
Pumping of domestic waste- water from septic tanks and sludge treating systems	•	•
Pumping of domestic waste- water without discharge from toilet rooms	•	•
Pumping of domestic waste- water with discharge from toilet rooms		•*

^{*} UNILIFT AP50B is approved according to EN 12050-1 and can be used for toilet discharge if local regulations allow the usage of a 50 mm free passage Vortex pump.

Incorrect application of the pump, for example resulting in blocking of the pump, and wear are not covered by the warranty.

5.2 Pumped liquids

The pump is capable of pumping water containing a limited quantity of spherical particles.

The pump is not suitable for the following liquids:

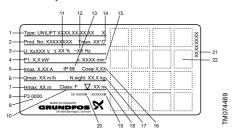
- Liquids containing long fibres
- inflammable liquids (oil, petrol, etc.)
- aggressive liquids.

Related information

8.1 Storage temperature

5.3 Identification

5.3.1 Nameplate



Nameplate example

Pos.	Description
1	Product type
2	Product number
3	Supply voltage [V]
4	Power input [kW]
5	Max. current [A]
6	Max. flow rate [m ³ /h]
7	Max. head [m]
8	Factory code
9	Production code (year and week)
10	Insulation class
11	Voltage tolerance [%]
12	Frequency [Hz]
13	Enclosure class
14	Max. liquid temperature [°C]
15	Speed [min ⁻¹]
16	Cosinus phi
17	Net weight [kg]
18	Max. installation depth [m]
19	ID number for Safety Instruction
20	ID number for EN standards
21	Nameplate layout
22	Approvals

5.3.2 Type key

Example: UNILIFT AP35B.50.08.A1.V

Code	Explanation	Designation	
UNILIFT AP	Type range		
35		Maximum solids size [mm]	
[]	AP Pump	Duman tuna	
В	AP Basic	Pump type	
50		Nominal diameter of outlet port	
08		Power output, P ₂ / 100 [W]	
Α	Automatic operation with float switch	Level control	
[]	Manual opera- tion without float switch		
1	Single-phase	· Motor	
3	Three-phase		
V	Vortex impeller	Impeller	

6. Servicing the product

DANGER Electric shock



Death or serious personal injury

- Switch off the power supply before starting any work on the product.
- Make sure that the power supply cannot be accidentally switched on.



CAUTION Sharp element

Minor or moderate personal injury

Wear personal protective equipment.

CAUTION

Toxic material

Minor or moderate personal injury



- The product will be classified as contaminated if it has been used for a liquid which is injurious to health or toxic.
- Wear personal protective equipment.

CAUTION

Biological hazard





- Flush the product thoroughly with clean water and rinse the parts in water after dismantling.
- Wear personal protective equipment.



If the power cable or the level switch is damaged, it must be replaced by a service workshop authorised by Grundfos.



Service must be carried out by specially trained persons.

Furthermore, all rules and regulations covering safety, health and environment must be observed.

- If the pump has been used for liquids other than clean water, flush the pump thoroughly with clean water before carrying out maintenance and service.
- 2. Rinse the pump parts in water after dismantling.

6.1 Maintaining the product

- Check the pump and replace the oil once a year. If the pump is used for pumping liquids containing abrasive particles or it is operating continuously, the pump must be checked at shorter intervals.
- If the drained oil contains water or other impurities, we recommend that you replace the shaft seal. Contact Grundfos Service.

6.2 Oil

In the case of long operating time or continuous operation, the oil must be replaced as follows:

Liquid temperature	The oil must be replaced after
20 °C	4500 operating hours
40 °C	3000 operating hours

The pump contains 78 ml non-poisonous oil.

Used oil must be disposed of in accordance with local regulations.

6.3 Construction

The construction of the pump will appear from the table below and fig. D in the Appendix.

Pos.	Description
50	Pump housing
37a	O-ring
49	Impeller
150	Motor with flange
66	Washer
84	Base
67	Lock nut
6	Inlet part
105a	Shaft seal
182	Level switch

6.4 Service kits

Service kit	Part number
Shaft seal, standard	96429307
Shaft seal, FKM	96429308
Oil	96010646

6.5 Contaminated pumps

CAUTION Biological hazard





- Flush the product thoroughly with clean water and rinse the parts in water after dismantling.
- Wear personal protective equipment.

The product will be classified as contaminated if it has been used for a liquid which is injurious to health or toxic. If you request Grundfos to service the product, contact Grundfos with details about the pumped liquid before returning the product for service. Otherwise, Grundfos can refuse to accept the product for service. Any application for service must include details about the pumped liquid.

Clean the product in the best possible way before you return it. Costs of returning the product are to be paid by the customer.

7. Fault finding

DANGER Electric shock



Death or serious personal injury

Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.

CAUTION Toxic material

Minor or moderate personal injury

- The product will be classified as contaminated if it has been used for a liquid which is injurious to health or toxic.
- Wear personal protective equipment.





CAUTION Sharp element

Minor or moderate personal injury

Wear personal protective equipment.

7.1 The motor does not start

Cause	Remedy
No power supply.	Connect the power supply.
The pump was stopped by the float switch.	Adjust or replace the float switch.
The fuses have blown.	Replace the fuses.
The motor protection or thermal relay has tripped.	Wait until the motor protection trips in again or reset the relay.
The impeller is blocked by impurities.	Clean the impeller.
Short circuit in the cable or motor.	Replace the defective part.

7.2 The motor protection or thermal relay trips after a short time of operation

Cause	Remedy					
The liquid temperature is too high.	Use another pump type. Contact your local Grundfos supplier or sales support.					
The impeller is blocked or partly blocked by impurities.	Clean the pump.					
Phase failure.	Call an electrician.					
Too low voltage.	Call an electrician.					
The overload setting of the motor-protective circuit breaker is too low.	Adjust the setting.					
Incorrect direction of rotation.	Reverse the direction of rotation.					

Related information

3.4 Checking the direction of rotation

7.3 The pump runs constantly or gives too little water

Cause	Remedy
The pump is partly blocked by impurities.	Clean the pump.
The outlet pipe or valve is partly blocked by impurities.	Clean the outlet pipe or valve.
The impeller is not properly fixed to the shaft.	Tighten the impeller.
Incorrect direction of rotation.	Reverse the direction of rotation.
Incorrect setting of the float switch.	Adjust the float switch.
The pump is too small for the application.	Replace the pump.
The impeller is worn.	Replace the impeller.

Related information

3.4 Checking the direction of rotation

7.4 The pump runs but gives no water

Cause	Remedy
The pump is blocked by impurities.	Clean the pump.
The outlet pipe or valve is blocked by impurities.	Clean the outlet pipe or valve.
The impeller is not properly fixed to the shaft.	Tighten the impeller.
There is air in the pump.	Vent the pump and the outlet pipe.
The liquid level is too low. The pump inlet is not completely submerged in the pumped liquid.	Submerge the pump in the liquid or adjust the float switch.
Pumps with float switch: The float switch does not move freely.	Adjust the float switch.

Related information

3.2.7 Adjusting the float switch cable length

8. Technical data

8.1 Storage temperature

Down to -30 °C.

8.2 Operating conditions

Minimum liquid temperature	0 °C
Maximum liquid tem- perature	40 °C
Installation depth	Maximum 7 m below liquid level
pH value	4-10
Density	Maximum 1100 kg/m ³
Viscosity	Maximum 10 mm ² /s
Maximum particle size	Max. spherical diameter: UNILIFT AP35B: 35 mm UNILIFT AP50B: 50 mm
Technical data	See the pump nameplate.



Always have at least 3 m free cable above liquid level. This limits the installation depth to 7 m for pumps with 10 m cable and to 2 m for pumps with 5 m cable.

8.3 Sound pressure level

The sound pressure level of the pump is lower than the limiting values stated in the EC Council Directive 2006/42/EC relating to machinery.

9. Disposing of the product

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.

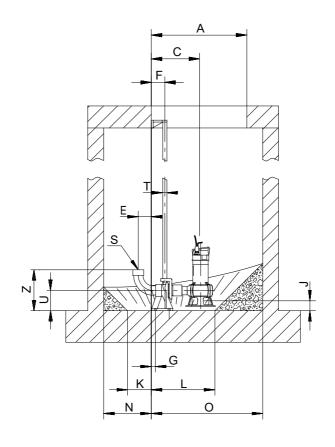


The crossed-out wheelie bin symbol on a product means that it must be disposed of separately from household waste. When a product marked with this symbol reaches its end of life, take it to a collection point designated by the local waste disposal authorities. The separate collection and recycling of such products will help protect the environment and human health.

See also end-of-life information at www.grundfos.com/product-recycling.

A.1. 1-pump installation on auto-coupling

Fig. A



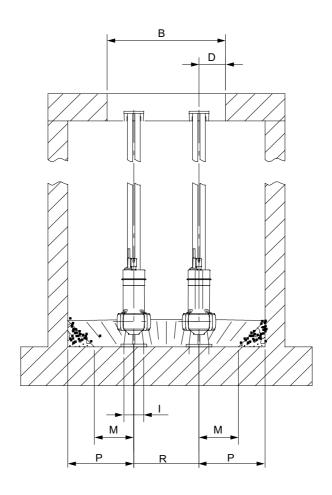
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Α	В	С	D	E	F	G	I	J	K
Ø600	Ø600	304	135	82	85	65	100	63	150

L	М	N	0	Р	R	s	Т	U	Z
400	200	300	700	500	-	R 2	3/4"	130	261

A.2. 2-pump installation on auto-coupling

Fig. B



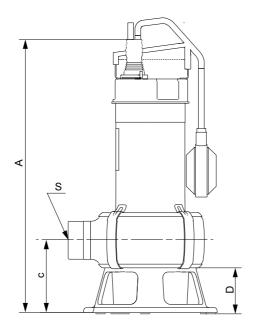
4012502

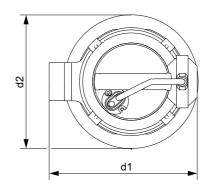
A	В	С	D	E	F	G	ı	J	K
600	600	304	135	82	85	26	100	63	150

L	М	N	0	P	R	s	Т	U	Z
400	200	300	700	335	330	R 2	3/4"	130	261

A.3. Free-standing Installation

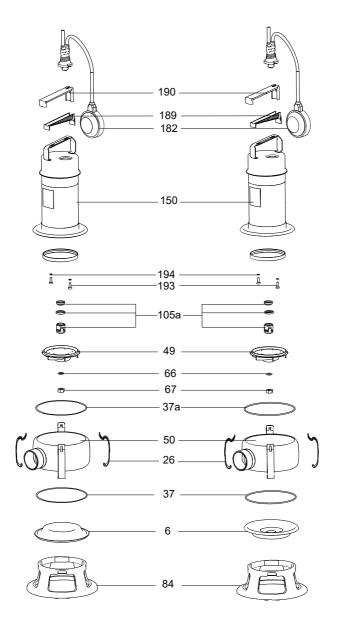
Fig. C





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	Α	С	D	s	d1	d2
UNILIFT AP35B	430	116	73	R 2	234	210
UNILIFT AP35B	455	116	73	R 2	234	210



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A.5. GRUNDFOS WARRANTY - AUSTRALIA AND NEW ZEALAND

Free from manufacturing defects

The relevant Grundfos entity, as specified below, warrants that from the date of purchase and for the period related to the specific product purchased (Warranty Period) the products purchased (Equipment) by you (the Customer) in the relevant country will, with normal use, be free from manufacturing defects and material defects (Warranty), subject to the terms set out herein.

FOR EQUIPMENT PURCHASED IN AUSTRALIA: : This Warranty is provided by Grundfos Pumps Pty Ltd (ACN 007920765) of 515 South Road Regency Park SA 5010 PH: (08) 8461 4611 Email: contact-au@grundfos.com (Grundfos Australia)

FOR EQUIPMENT PURCHASED IN NEW ZEALAND: This Warranty is provided by Grundfos Pumps NZ Limited (Company number 108507) of 17 Beatrice Tinsley Crescent, Albany, North Shore City, 0632 PH: (09) 41532540 Email: contact-nz@grundfos.com (**Grundfos NZ**).

(In this Warranty references to "**Grundfos**" shall mean either Grundfos Australia or Grundfos NZ, as applicable)

The relevant Warranty Period varies between different items of Equipment and can be confirmed by your Equipment supplier or by contacting the relevant Grundfos entity at the above address.

Non Transferable

This Warranty is non- transferable and only applies to the first person to purchase and to use or install the Equipment.

Conditions

- 4. The Customer must provide the original proof or purchase for the Equipment.
- 5. This Warranty only applies where a defect has arisen, wholly or substantially, as a result of faulty manufacture, parts or workmanship and where such defect appears during the Warranty Period.
- 6. The Warranty does not apply in the following circumstances:
 - a. where the damage arises due to normal wear and tear:
 - where the Equipment was not installed in accordance with Grundfos' installation and operating instructions for the Equipment;
 - where the Customer failed to specify a site condition or specification at the time of ordering the Equipment, which subsequently affects the operation of the Equipment;
 - d. where damage results because the Equipment is installed to operate at a duty point other than
 what has been specified at the time of ordering;
 - e. the Equipment has been stored by the Customer prior to installation and operation and such period of storage is not in accordance with the requirements set out in the Equipment's operation and installation manual:
 - f. where the Customer attempts to repair the Equipment;
 - g. where damage is caused by abuse, mishandling or failure to follow operating instructions;
 - where the servicing or modification of the Equipment was conducted by someone other than by Grundfos or its authorised service agent; or
 - where damage occurs during shipping or other transit.
- 7 This Warranty does not cover:
 - a. repair of Equipment polluted by poisonous media or other liquids injurious to the environment;
 - b. the cost of disassembly, assembly and installation; or
 - c. the Equipment where protection devices have been installed but have not been used or monitored.

Excluded products

- 8. This Warranty does not apply to Equipment that Grundfos imports that is not manufactured by Grundfos (or one of its related companies). However:
 - a. FOR EQUIPMENT PURCHASED IN AUSTRALIA: The Customer is entitled to the benefit of the warranty provided by the overseas manufacturer of that Equipment (if any), and any rights the Customer may have under the Australian Consumer Law (ACL).
 - b. FOR EQUIPMENT PURCHASED IN NEW ZEALAND: The Customer is entitled to the benefit of the warranty provided by the overseas manufacturer of that Equipment (if any), and any rights the Customer may have under the Consumer Guarantees Act 1993 (CGA) that have not otherwise been lawfully excluded.

Warranty is additional to statutory consumer rights

- This Warranty is in addition to and does not exclude, restrict or modify in any way any non-excludable statutory rights the Customer may have, including any rights the Customer may have under the ACL or the CGA (as applicable).
- 10. FOR EQUIPMENT PURCHASED IN AUSTRALIA: Grundfos Australia provides the following advice to all Customers who are consumers as defined by the ACL and to whom the ACL applies, as required by the ACL:
 - Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably fore-seeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- 11. **FOR EQUIPMENT PURCHASED IN NEW ZEALAND:** Grundfos NZ provides the following advice to all Customers who are consumers as defined by the CGA and to whom the CGA applies:

Unless the provisions of the CGA have been lawfully excluded, the guarantees and the remedies for failure to comply with those guarantees as set out in the CGA shall apply. Such remedies include the repair or replacement of the Equipment or, where the failure is of a substantial character, the rejection of the Equipment or compensation for the reduction in value of the Equipment. In addition to these remedies, you are also entitled to compensation for reasonably foreseeable loss or damage resulting from the failure.

How to claim

- Instructions for making a Warranty claim:
 - The Customer must inform Grundfos as soon as any Warranty claim arises. The Customer must contact Grundfos:
 - i. in writing, by notice sent to:

FOR EQUIPMENT PURCHASED IN AUSTRALIA:

Grundfos Pumps Pty Ltd

515 South Road, Regency Park, South Australia, 5010;

FOR EQUIPMENT PURCHASED IN NEW ZEALAND:

Grundfos Pumps New Zealand Ltd

17 Beatrice Tinsley Crescent, Albany, North Shore City, 0632; or

- by returning the item to the place of purchase and requesting them to complete the required documentation (a Goods Return Advise or a Field Warranty Claim Form) and send it to Grundfos.
- b. The Customer must provide Grundfos with a description of the problem encountered with the Equipment, the Equipment model number, serial number, and date of purchase. Most importantly, the Customer must provide Grundfos the original proof of purchase. The Customer will bear the cost of notifying Grundfos of the Warranty claim.

What Grundfos will do

- 13. If Grundfos is informed of any claim within the Warranty Period and that claim is within the terms of this Warranty, Grundfos will make arrangements for the service, repair or replacement of the Equipment, at the sole discretion and cost of Grundfos. The Customer will bear the cost of freight and insurance to transport any products to Grundfos, or to the place of purchase (as applicable). Grundfos will bear the cost of freight for the return and dispatch of the repaired or replaced Equipment if the claim is accepted under this Warranty.
- 14. If a Warranty claim is not accepted, Grundfos will inform the Customer in writing that the Warranty claim was not accepted and the reasons for non-acceptance. The Customer will bear the cost of any freight for the return and dispatch of the Equipment, and the cost of any repairs undertaken by Grundfos if requested by the Customer to do so.

Warranty Periods

Unless otherwise stated below, all Grundfos product comes as standard with a 2 Year Warranty.

1 Year Warranty

Start Controllers
 Grundfos Ultra 6"-12" Ultra
 Dosing accessories
 DSA
 DSB
 DIS
 DOCD
 DIT
 VGA

3 Year Warranty

Grundfos SP 4"
 CRI
 Grundfos SP w/MP204 6"-12"

5 Year Warranty

Pressure Tanks
 Wellmaster Flexible Rising Main
 CRN

10 Year Warranty

· Fixed Solar Array

25 Year Linear Performance Warranty

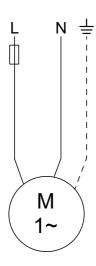
· Solar Modules

A.6. Argentinian supplement sheet

Only for Argentinean market // Solo para el mercado argentino:

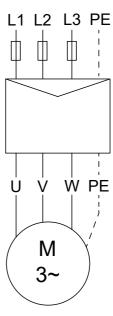
La bomba UNILIFT AP(B)/KP está determinada para instalaciones fijas y debe conectarse a una bornera o un tablero Grundfos modelo LCD108.

Bomba monofásica:



Cable marrón: LINEA
Cable celeste: NEUTRO
Cable verde/amarillo: TIERRA

Bomba trifásica:



Cable marrón: L1 Cable celeste o gris: L2 Cable negro: L3

Cable verde/amarillo: TIERRA (PE)

Argentina

Bombas GRUNDFOS de Argentina S.A. Ruta Panamericana km. 37.500industin 1619 - Garín Pcia. de B.A.

Tel.: +54-3327 414 444 Fax: +54-3327 45 3190

Australia

GRUNDFOS Pumps Pty. Ltd. P.O. Box 2040 Regency Park South Australia 5942 Tel.: +61-8-8461-4611 Fax: +61-8-8340-0155

Austria

GRUNDFOS Pumpen Vertrieb Ges.m.b.H. Grundfosstraße 2 A-5082 Grödig/Salzburg Tel.: +43-6246-883-0 Fax: +43-6246-883-30

Belaium

N.V. GRUNDFOS Bellux S.A. Boomsesteenweg 81-83 B-2630 Aartselaar Tel.: +32-3-870 7300 Fax: +32-3-870 7301

Relarus

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Fax: +387 33 590 465
www.ba.grundfos.com
E-mail: grundfos@bih.net.ba

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BOMBAS GRUNDFOS DO BRASIL Av. Humberto de Alencar Castelo Branco, 630 CEP 09850 - 300

São Bernardo do Campo - SP Tel.: +55-11 4393 5533 Fax: +55-11 4343 5015

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Tel.: +359 2 49 22 200 Fax: +359 2 49 22 201 E-mail: bulgaria@grundfos.bg

Canada

GRUNDFOS Canada inc. 2941 Brighton Road Oakville, Ontario L6H 6C9

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China

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Columbia

GRUNDFOS Colombia S.A.S. Km 1.5 vía Siberia-Cota Conj. Potrero Chico.

Parque Empresarial Arcos de Cota Bod. 1A.

Cota, Cundinamarca Tel.: +57(1)-2913444 Fax: +57(1)-8764586

Croatia

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E-mail: info_GDK@grundfos.com

www.grundfos.com/DK

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GRUNDFOS Pompy Sp. z o.o. ul. Klonowa 23 Baranowo k. Poznania PL-62-081 Przeźmierowo Tel.: (+48-61) 650 13 00 Fax: (+48-61) 650 13 50

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Bucuresti, Romania Tel.: 004 021 2004 100 E-mail: romania@grundfos.ro

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Fax: (+27) 10 248 6002 E-mail: Igradidge@grundfos.com

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GRUNDFOS Pumps (Taiwan) Ltd. 7 Floor. 219 Min-Chuan Road Taichung, Taiwan, R.O.C. Tel: +886-4-2305 0868 Fax: +886-4-2305 0878

Taiwan

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