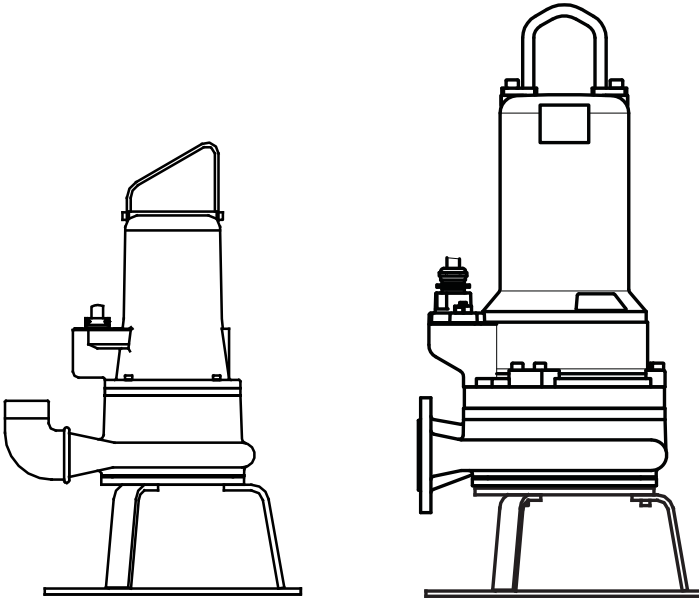


APG

Installation and operating instructions



English (GB) Installation and operating instructions

Original installation and operating instructions

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

Note Notes or instructions that make the job easier and ensure safe operation.

2. General description

2.1 Applications

Grundfos APG pumps are designed for pumping:

- wastewater
- sludge-containing water
- groundwater
- sewage from restaurants, hotels, camping sites, etc.

The compact design makes the pumps suitable for both temporary and permanent installation.

Furthermore, the pumps are suitable for free-standing installation as well as installation on an auto-coupling system.

The APG pumps are equipped with a cutter system which cuts all destructible solids into small pieces so that they can be led away through pipes of a relatively small diameter.

2.1.1 Potentially explosive environments

If you order an explosion-proof pump, you will receive a pump not labelled Grundfos.

Note We must emphasize that we comply with all obligations with respect to warranty and service of pumps sold by Grundfos as APG pumps.

Use the explosion-proof APG pump versions for applications involving a risk of explosion.

Note The explosion classification of the pumps is EEx de IIB T4. However, the pumps must in each individual case be approved for use at the desired installation site by the local authorities.

Warning



Prior to installation, read these installation and operating instructions. Installation and operation must comply with local regulations and accepted codes of good practice.

1. Symbols used in this document

Warning



If these safety instructions are not observed, it may result in personal injury.

Warning



If these instructions are not observed, it may lead to electric shock with consequent risk of serious personal injury or death.

Warning



These instructions must be observed for explosion-proof pumps.

2.2 Operating conditions

2.2.1 pH-value

APG pumps in permanent installations can cope with pH-values ranging from 4 to 10.

2.2.2 Liquid temperature

Liquid temperature: 0 °C to +40 °C.
For short periods up to +60 °C.

2.2.3 Density of pumped liquid

Maximum density of pumped liquid: 1100 kg/m³.

2.2.4 Installation depth

Maximum 10 metres below liquid level.

2.2.5 Level of pumped liquid

The lowest stop level must always be above the top of the pump housing.

2.2.6 Operation

Maximum 15 starts per hour.

Note

The pumps are designed for intermittent operation only.

2.3 Sound pressure level

The sound pressure level of the pump is lower than the limiting values stated in the EC Council Directive 98/37/EEC relating to machinery.

3. Safety



Warning

Pump installation in wells must be carried out by specially trained persons.

4. Transportation and storage

The pump may be transported and stored in a vertical or horizontal position. Make sure that it cannot roll or fall over.

Always lift the pump by its carrying handle, never by the motor cable or the hose/pipe.

For long periods of storage, the pump must be protected against moisture and heat.

After a long period of storage, the pump should be inspected before it is put into operation. Make sure that the impeller can rotate freely. Pay special attention to the shaft seals and the cable entry.

5. Identification

5.1 Nameplate

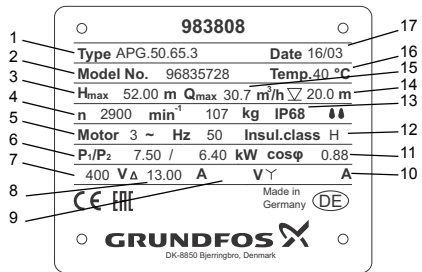


Fig. 1 Nameplate

Pos.	Description
1	Type designation
2	Model number
3	Maximum head
4	Rated speed
5	Number of phases
6	Rated input power/rated output power
7	Rated voltage, D
8	Rated current, D
9	Rated voltage, Y
10	Rated current, Y
11	Cos φ, 1/1-load
12	Insulation class
13	Enclosure class to IEC
14	Maximum installation depth
15	Maximum flow rate
16	Maximum liquid temperature
17	Production code (year/week)

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6. Installation

The extra nameplate supplied with the pump should be fixed at the installation site.

Prior to installation, check the oil level in the oil chamber. See section 9. *Maintenance and service*.

6.1 Installation on auto-coupling

See figures 1 and 2, pages 11 and 12, for pumps up to and including 3.3 kW and fig. 4, page 14, for pumps from 4.8 kW up to and including 9.2 kW.

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

1. Drill mounting holes for the guide rail bracket on the inside of the pit, and fasten the guide rail bracket provisionally with two screws.
2. Place the auto-coupling base unit on the bottom of the pit. Use a plumb line to establish the correct position. Fasten the auto-coupling base unit with heavy-duty expansion bolts. If the bottom of the pit is uneven, the auto-coupling base unit must be supported so that it is level when fastened.
3. Assemble the discharge line in accordance with the generally accepted procedures and without exposing the line to distortion or tension.
4. Insert the guide rails in the rings of the auto-coupling base unit, and adjust the length of the rails accurately to the guide rail bracket.
5. Unscrew the provisionally fastened guide rail bracket, fit it on top of the guide rails, and finally fasten it firmly to the pit wall.

Caution

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

6. Clean out debris from the pit before lowering the pump into the pit.
7. Fit the auto-coupling half on the discharge port 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.
8. Hang the end of the chain on a suitable hook at the top of the pit.
9. 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.

Caution

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

6.2 Free-standing installation

See figures 3 and 5, pages 13 and 14.

The APG.50.11.3 and APG.50.12.1 pumps have pump housing and base stand cast in one piece for free-standing installation.

The larger APG pumps should be provided with a separate base stand.

For free-standing installation of the pumps, fit a 90° elbow on the discharge port. 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 discharge line 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 discharge port.

If a rigid pipe is used, the union or coupling, non-return valve and isolating valve should be fitted in the sequence mentioned, as seen from the pump side.

Lower the pump into the liquid.

If the pump is installed in muddy conditions or on uneven ground, we recommend placing the pump on bricks.

6.3 Pumps with control box

Pumps with a control box may be supplied with a level switch with cable. The level switch cable should be fastened in the retainer on the pump handle.

The level difference between start and stop may be adjusted by adjusting the free length of cable between the level switch and the retainer.

Large difference in level: long cable. Small difference in level: short cable.

6.4 Separate level controllers

Three-phase APG pumps without control box or level switch can be supplied with a separate level controller with level switches: type LC for one-pump installations and type LCD for two-pump installations.

The LC controller is fitted with two or three level switches. The third level switch, which is optional, is for high-level alarm.

The LCD controller is fitted with three or four level switches: one for common stop and two for start of pumps. The fourth level switch, which is optional, is for high-level alarm.

When installing the level switches, the following points should be observed:

- To prevent air intake and vibrations, install the stop level switch in such a way that the pump is stopped before the liquid level falls to below the top of the pump housing.
- Install the start level switch in such a way that the pump is started at the required level. However, the pump must always be started before the liquid level reaches the bottom inlet pipe in the pit.
- If installed, the high-level alarm switch should always be placed about 10 cm above the start level switch. However, alarm must always be given before the liquid level reaches the pit inlet pipe.

To ensure correct operation of the pump, make sure to adjust and fit the level sensor correctly. Carry out a test run of the pump after each adjustment of the level sensor.

Note

7. Electrical connection

The electrical connection of the pump should be carried out in accordance with local regulations.

The operating voltage and frequency are stated on the nameplate. Voltage tolerance: $\pm 10\%$ of the voltage stated on the nameplate. Make sure that the motor is suitable for the power supply available at the installation site.

7.1 Motor protection

All pumps are supplied with 10 metres of cable and a free cable end.

All single-phase pumps supplied without control box must be connected to a separate control box with motor starter and run capacitor. Furthermore, the pumps must be connected to a starting capacitor. For capacitor sizes, see the table below.

60 Hz

Pump type	Starting capacitor		Run capacitor	
	[μ F]	[V]	[μ F]	[V]
APG.50.12.1	50	1 x 230	25	1 x 450
APG.50.18.1	80	1 x 230	40	1 x 450
APG.50.30.1	150	1 x 230	60	1 x 450
APG.50.33.1	150	1 x 230	60	1 x 450

APG.50.12.1 has a thermal switch built into the motor windings. The thermal switch cuts out the motor in case of overtemperature and cuts it in again automatically after cooling.

All 3-phase pumps supplied without control box must be connected to a separate motor starter.

APG pumps of 4.8 kW and up are prepared for star-delta starting, i.e. both ends of the motor windings are accessible through the motor cable. See fig. 2.

- T1 and T3 are connected to the standard set of temperature sensors.
- T1 and T2 are connected to the extra set of temperature sensors in explosion-proof pumps.
- S1 and S2 are connected to a moisture sensor in the oil chamber.

7.1.1 Temperature sensors (in stator windings)

All pumps have integrated temperature sensors in the stator windings. Via the safety circuit, the temperature sensors will cut out the motor in case of overtemperature, approx. 150 °C. The maximum operating current of the temperature sensors is 0.5 A at 500 VAC and cos φ 0.6.

Non-explosion-proof pumps only have one set of temperature sensors.


Explosion-proof pumps have two sets of temperature sensors. The extra set of sensors will open at a temperature that is approx. 10 °C higher than the opening temperature of standard sensors. The extra set of sensors provides additional protection against overtemperature in potentially explosive environments.

The temperature sensors must be connected to the safety circuit of the motor-protective circuit breaker via the temperature relay (No 98123042). See fig. 3.

Figure 2 shows the electrical connection of a three-phase, explosion-proof APG pump.

The temperature sensors are connected to the monitoring cable and must be connected to the separate thermistor relay fitted in the safety circuit of the pump controller.

The temperature sensors of pumps above 1.6 kW and three-phase motors are connected to the power supply cable. To ensure automatic restart of the motor when cooled (to ambient temperature), the leads marked T1 and T3 must be connected to the safety circuit. For explosion-proof versions, the same applies to the leads marked T1 and T2.

Warning
 Separate motor-protective circuit breakers/control boxes must not be installed in potentially explosive environments.

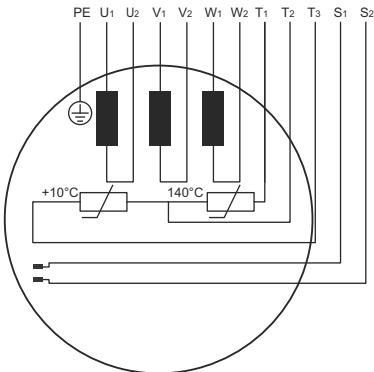


Fig. 2 Wiring diagram, sensors

Temperature relay

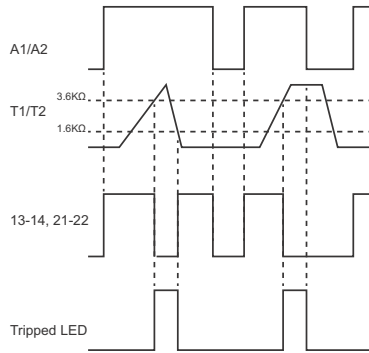
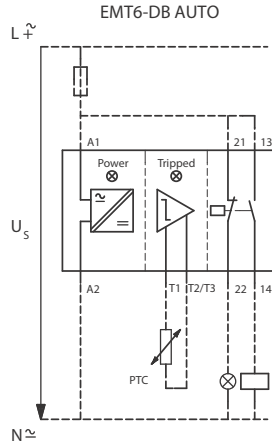


Fig. 3 Wiring diagram, temperature relay

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TM05 3448 1312

7.1.2 Moisture sensor

Applies only to APG.50.48, APG.50.65 and APG.50.92.

Pumps with moisture sensor have a sensor in the oil chamber between the motor and the pump housing.

Through the separate level relay (No 99010129), the moisture sensor transmits a signal to the safety circuit to trip the motor in case of ingress of moisture/water into the pump. See fig. 4.

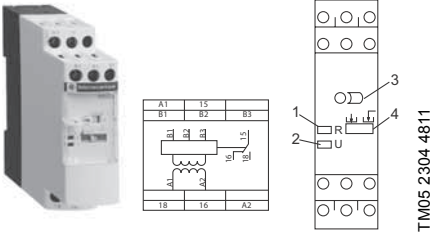


Fig. 4 Wiring, moisture relay

8. Startup

Proceed as follows:

1. Check the oil level in the oil chamber.
2. Remove the fuses, and check whether the impeller can rotate freely.
3. Check whether the monitoring units, if used, are operating satisfactorily.
4. Check whether the system has been filled with liquid and vented.
5. Make sure that the pump is submerged in the liquid.
6. Open the isolating valves, if fitted.
7. Check the setting of the level switches.
8. Start the pump.

Note The pump may be started for a very short period without being submerged in order to check the direction of rotation.

8.1 Direction of rotation

All single-phase pumps are factory-set to the correct direction of rotation.

Before starting up three-phase pumps, check the direction of rotation. The direction of rotation should be clockwise when viewed from above. When starting up, the pump will jerk in the opposite direction of the direction of rotation. If the direction of rotation is wrong, interchange two of the three phases of the power supply.

Checking the direction of rotation

The direction of rotation should be checked every time the pump is connected to a new installation.

Check the direction of rotation as follows:

1. Start the pump, and check the quantity of water or the discharge pressure.
2. Stop the pump, and interchange two of the three phases to the motor.
3. Start the pump, and check the quantity of water or the discharge pressure.
4. Stop the pump.
5. Compare the results from points 1 and 3. The phase connection which gives the larger quantity of water or the higher pressure gives the correct direction of rotation.

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9. Maintenance and service



Warning

Before starting work on the product, switch off the power supply. Make sure that the power supply cannot be accidentally switched on.



Warning

Make sure that all rotating parts have stopped moving.

Before carrying out maintenance and service, make sure that the pump has been thoroughly flushed with clean water. Rinse the pump parts in water after dismantling.



Warning

When unscrewing the inspection screw of the oil chamber, please note that pressure may have built up in the chamber. Do not remove the screw until the pressure has been fully relieved.

Normally operating pumps should be inspected at least once a year. If the pumped liquid is very muddy or sandy, inspect the pump at shorter intervals.

When the pump is new or after replacement of the shaft seals, check the oil level after one week of operation.

For long and trouble-free operation of the pump the following points should be checked regularly:

- Power consumption
- Oil level and oil condition
If the oil contains water, it becomes greyish white like milk. Water in the oil may be due to a defective shaft seal. The oil should be replaced after 3000 hours of operation. Use Shell Ondina X420 oil or a similar type of oil.

Note

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

- Cable entry
Make sure that the cable entry is watertight and that the cables are not bent sharply and/or pinched.
- Pump parts
Check the impeller, pump housing, neck ring, etc. for possible wear. Replace defective parts.
- Ball bearings
Check the shaft for noisy or heavy operation (turn the shaft by hand). Replace defective ball bearings. A general overhaul of the pump is usually required in case of defective ball bearings or poor motor function. This work must be carried out by the manufacturer or a competent workshop.

9.1 Replacement of cutter head

Remove the cutter head.

Fit the new cutter head as follows:

1. Knock guide pin (560) into cutter head (23).
2. Fit the cutter head with guide pin on impeller (230). Fit and tighten screw (900.01).
3. Fit threaded pins (904) in suction cover (162).
4. Fit O-ring (412.01) in the suction cover, and grease the cover.
5. Knock the suction cover into pump housing (101) until the suction cover bears against the impeller. Check through the inlet port.
6. Tighten all threaded pins (904) until they easily touch pump housing (101).
7. Give all threaded pins a quarter of a turn.
8. Fasten the suction cover by means of screws (914.01).
9. Fit cutting ring (50) to the suction cover. Fit and tighten screws (900.02).

Pump type	Quantity of oil in oil chamber [l]
APG.50.11	0.70
APG.50.12	0.70
APG.50.18	1.00
APG.50.19	1.00
APG.50.29	1.00
APG.50.30	1.00
APG.50.33	1.00
APG.50.48	1.90
APG.50.65	1.90
APG.50.92	1.90

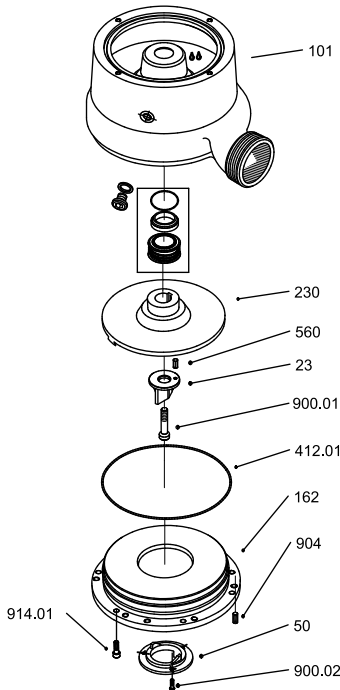


Fig. 5 Exploded view

Pos.	Component
23	Cutter head
50	Cutting ring
101	Pump housing
162	Suction cover
230	Impeller
560	Guide pin
412.01	O-ring
900.01	Screw
900.02	Screw
904	Threaded pin
914.01	Screw

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9.2 Service kits

The service kit for APG pumps up to and including 3.7 kW includes:

- 1 shaft seal kit
- 1 O-ring kit
- 1 cable entry kit.

The service kit for APG pumps of 4.8 kW and up includes:

- 1 cutter kit
- 1 O-ring kit
- 1 shaft seal kit
- 1 cable entry kit.

50 Hz pumps

APG.50.09, 11 and 12	96003308
APG.50.09.3Ex and 11.1Ex	96003300
APG.50.17, 18 and 19	96003309
APG.50.19.3Ex	96003310
APG.50.31	96003311
APG.50.31.3Ex	96003310
APG.50.48.3(Ex)	96843315
APG.50.65.3(Ex)	96843315
APG.50.92.3(Ex)	96843315
APG.50.48.3(Ex) with moisture sensor	96843315
APG.50.65.3(Ex) with moisture sensor	96843315
APG.50.92.3(Ex) with moisture sensor	96843315

60 Hz pumps

APG.50.11 and 12	96003308
APG.50.18 and 19	96003309
APG.50.29, 30 and 33	96003311

9.3 Oil

1 litre of oil, type Shell Ondina X420.
Product number: 96586753.

9.4 Contaminated pumps

Caution If used for a liquid which is injurious to health or toxic, the pump will be classified as contaminated.

If Grundfos is requested to service the pump, Grundfos must be contacted with details about the pumped liquid, etc. before the pump is returned for service. Otherwise Grundfos can refuse to accept the pump for service.

Possible costs of returning the pump to the customer are paid by the customer.

10. Fault finding



Warning

Before starting fault finding, switch off the power supply, and make sure that all rotating parts have stopped moving. Make sure that the power supply cannot be accidentally switched on.

Fault	Cause	Remedy
1. Motor does not start. Fuses blow, or motor starter trips immediately. Caution: Do not start again!	a) Supply failure; short-circuit; earth-leakage fault in cable or motor winding.	Have the cable and motor checked and repaired by a qualified electrician.
	b) Fuses blow as they are not the right type.	Install fuses of the correct type.
	c) Impeller blocked by impurities.	Clean the impeller.
	d) Level switch out of adjustment or defective.	Check the level switch.
2. Pump operates, but motor starter trips after a short while.	a) Low setting of thermal relay in motor starter.	Set the relay in accordance with the specifications on the nameplate.
	b) Increased current consumption due to large voltage drop.	Measure the voltage between motor phases. Tolerance: $\pm 10\%$.
	c) Impeller blocked by impurities. Increased current consumption in all three phases.	Clean the impeller.
3. Pump operates at below-standard performance and power consumption.	a) Impeller blocked by impurities.	Clean the impeller.
	b) Wrong direction of rotation.	Check the direction of rotation, and, if necessary, interchange two phases. See section 8.1 Direction of rotation .
4. Pump operates, but supplies no liquid.	a) Discharge valve closed or blocked.	Check the discharge valve, and open and/or clean, if necessary.
	b) Non-return valve blocked.	Clean the non-return valve.
	c) Air in pump.	Vent the pump.

11. 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.

- GB: One-pump installation on auto coupling
 BG: Една помпа с автоматичен куплунг
 DK: 1-pumpe-installation på autokobling
 DE: Ein-Pumpen-Anlage mit Kupplungsfußkrümmer
 GR: Εγκατάσταση μίας αντλίας με αυτόματη ζεύξη
 ES: Una bomba con autoacoplamiento
 FR: Une pompe avec système d'accouplement automatique
 HR: Instalacija s jednom crpkom na automatskoj spojki
 IT: Una pompa con accoppiamento rapido
 HU: Egy szivattyú beép. automata csőkapcsolóval
 NL: Eén pomp met voetbochtsnelkoppeling
 PT: Uma bomba com acoplamento automático
 RU: Один насос с автоматической муфтой
 RO: 1. Instalarea pompei pe dispozitivul de autocuplare
 RS: Ugradnja jedne pumpe sa automatskom spojnicom
 FI: Yhden pumpun asennus jalustaliittimellä
 SE: En pump installerad med kopplingsfot
 CN: 一台泵安装于自动耦合装置上

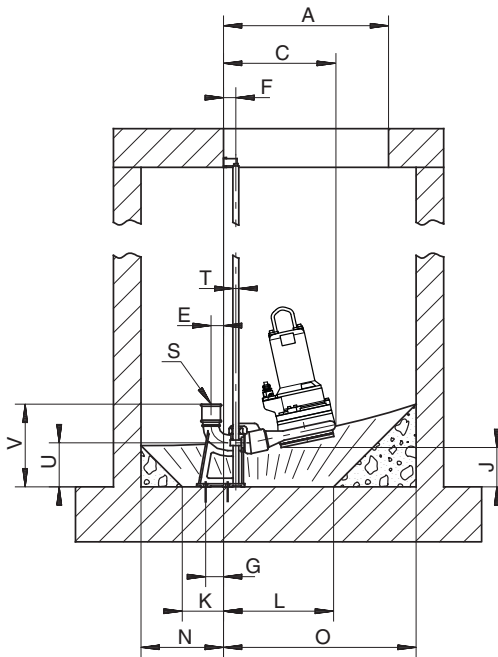


Fig. 1

A	4B	C	D	E	F	G	I	J	
∅ 600	∅ 600	407	300	45	45	65	115	143	
K	L	M	N	O	P	R	T	U	V
150	400	200	300	700	500	-	1/2"	160	295

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- | | |
|---|---|
| GB: Two-pump installation on auto coupling | HU: Két szivattyús beép. automata csökapcsolóval |
| BG: Две помпи с автоматичен куплунг | NL: Twee pompen met voetbochtsnelkoppeling |
| DK: 2-pumpe-installation på autokobling | PT: Duas bombas com acoplamento automático |
| DE: Zwei-Pumpen-Anlage mit Kupplungsfußkrümmer | RU: Два насоса с автоматической муфтой |
| GR: Εγκατάσταση δύο αντλιών με αυτόματη ζεύξη | RO: 2. Instalarea pompei pe dispozitivul de autocuplare |
| ES: Dos bombas con autoacoplamiento | RS: Ugradnja dveju pumpi sa automatskom spojnicom |
| FR: Deux pompes avec système d'accouplement automatique | FI: Kahden pumpun asennus jalustaliittimellä |
| HR: Instalacija s dvije crpke na automatskoj spojki | SE: Två pumpar installerade med kopplingsfot |
| IT: Due pompe con accoppiamento rapido | CN: 两台泵安装于自动耦合装置上 |

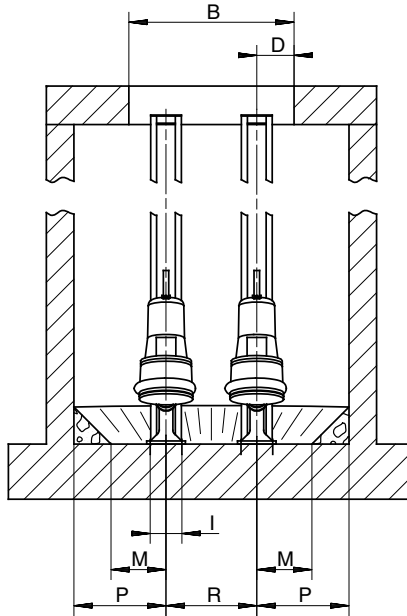


Fig. 2

A	B	C	D	E	F	G	I	J	
455	600	407	135	45	45	65	115	143	
K	L	M	N	O	P	R	T	U	V
150	400	200	300	700	335	330	1/2"	160	295

TM01 2607 2098

GB: Free-standing Installation
 BG: Свободен монтаж
 DK: Fritstående installation
 DE: Freistehende Aufstellung
 GR: Ανεξάρτητη εγκατάσταση
 ES: Instalación portátil
 FR: Installation fixe sur socle
 HR: Samostojeća instalacija
 IT: Installazione su piede d'appoggio

HU: Telepítési méretek hozzáadható kivitel esetén
 NL: Vrijstaande opstelling
 PT: Instalação autónoma
 RU: Свободная установка насоса
 RO: Instalare liberă
 RS: Slobodnostojeća ugradnja
 FI: Vapaasti seisova asennus
 SE: Fristående installation
 CN: 独立 (潜水) 安装

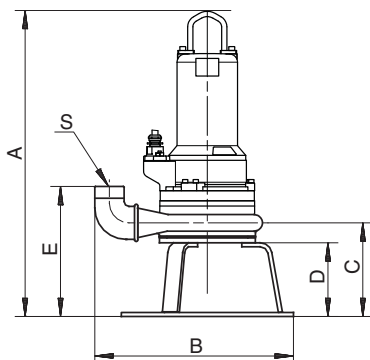


Fig. 3

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APG	A	B	C	D	E	S
APG, 50 Hz						
APG.50.09.3	497	304	130	90	207	R 2
APG.50.09.3Ex	497	304	130	90	207	R 2
APG.50.11.1	497	304	130	90	207	R 2
APG.50.11.1Ex	497	304	130	90	207	R 2
APG.50.17.3	618	405	191	150	265	R 2
APG.50.18.1	618	405	191	150	265	R 2
APG.50.19.3	618	405	191	150	265	R 2
APG.50.19.3Ex	618	405	191	150	265	R 2
APG.50.31.3	655	408	191	150	265	R 2
APG.50.31.3Ex	655	408	191	150	265	R 2
APG	A	B	C	D	E	S
APG, 60 Hz						
APG.50.11.3	450	304	133	90	207	R 2
APG.50.12.1	450	304	133	90	207	R 2
APG.50.18.1	620	408	191	150	265	R 2
APG.50.19.3	620	408	191	150	265	R 2
APG.50.29.3	751	408	191	150	265	R 2
APG.50.30.1	751	408	191	150	265	R 2
APG.50.33.1	751	408	191	150	265	R 2

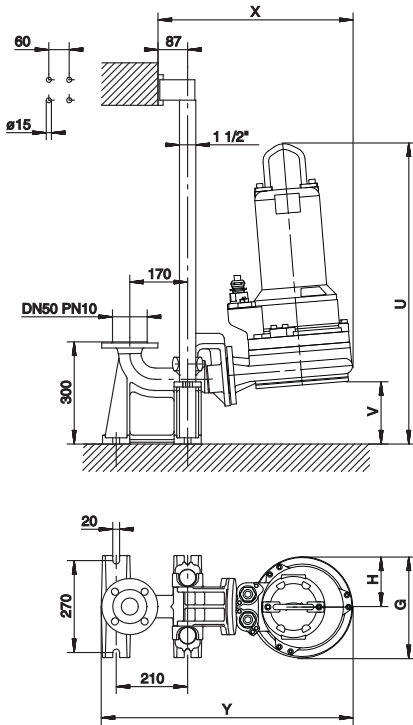


Fig. 4

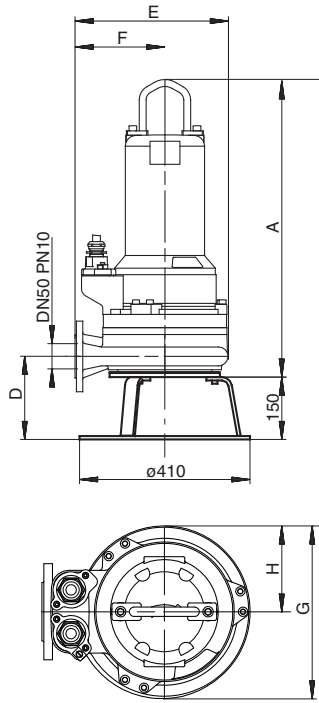


Fig. 5

Pump type	A	D	E	F	G	H	U	V	X	Y
APG.50.48.3(Ex)	621	193	357	210	297	147	790	182	562	729
APG.50.65.3(Ex)	621	193	357	210	297	147	790	182	562	729
APG.50.92.3(Ex)	694	193	357	210	297	147	862	182	562	729

Declaration of conformity

GB: EC/EU declaration of conformity

We, Grundfos, declare under our sole responsibility that the product APG, to which the declaration below relates, is in conformity with the Council Directives listed below on the approximation of the laws of the EC/EU member states.

Note: There are two sets of Council Directives and standards listed below. One set applies until and including 19th April 2016. The other set applies from 20th April 2016 and onwards.

DE: EG-/EU-Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass das Produkt APG, auf das sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EG-/EU-Mitgliedsstaaten übereinstimmt.

Hinweis: Nachfolgend sind zwei Gruppen aus Richtlinien des Rates und Standards aufgeführt. Eine Gruppe gilt bis einschließlich 19. April 2016. Die andere Gruppe gilt ab dem 20. April 2016.

ES: Declaración de conformidad de la CE/UE

Grundfos declara, bajo su exclusiva responsabilidad, que el producto APG al que hace referencia la siguiente declaración cumple lo establecido por las siguientes Directivas del Consejo sobre la aproximación de las legislaciones de los Estados miembros de la CE/UE.

Nota: A continuación se recogen dos conjuntos de normas y Directivas del Consejo. Uno de ellos es válido hasta el 19 de abril de 2016. El otro es válido a partir del 20 de abril de 2016.

FR: Déclaration de conformité CE/UE

Nous, Grundfos, déclarons sous notre seule responsabilité, que le produit APG, auquel se réfère cette déclaration, est conforme aux Directives du Conseil concernant le rapprochement des législations des États membres CE/UE relatives aux normes énoncées ci-dessous.

Remarque: Deux groupes de Directives du Conseil et normes sont énoncés ci-dessous. Un groupe s'applique jusqu'au 19 avril 2016 inclus. L'autre groupe entrera en vigueur le 20 avril 2016.

HR: EC/EU deklaracija sukladnosti

Mi, Grundfos, izjavljujemo s punom odgovornošću da je proizvod APG, na koja se odnosi u nastavku, u skladu s direktivama Vijeća dolje navedenih o usklađivanju zakona država članica EZ-a / EU-a.

Napomena: Postoje dva seta direktiva vijeća i standarda navedenih dolje. Jedan set se odnosi do, i uključujući 19 Travanja 2016. Drugi set se odnosi na datume od 20 travnja 2016 i naprijed.

IT: Dichiarazione di conformità CE/UE

Grundfos dichiara sotto la sua esclusiva responsabilità che il prodotto APG, al quale si riferisce questa dichiarazione, è conforme alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE/UE.

Nota: Di seguito sono elencate due serie di direttive del Consiglio e norme. Una serie si applica fino al 19 aprile 2016 (incluso). La seconda serie si applica a partire dal 20 aprile 2016.

PT: Declaração de conformidade CE/UE

A Grundfos declara sob sua única responsabilidade que o produto APG, ao qual diz respeito a declaração abaixo, está em conformidade com as Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da CE/UE.

Nota: Abaixo estão listados dois grupos de Directivas do Conselho e normas. Um dos grupos é aplicável até 19 de Abril de 2016, inclusive. O outro grupo é aplicável a partir de 20 de Abril de 2016, inclusive.

RS: Deklaracija o usklađenosti EC/EU

Mi, kompanija Grundfos, izjavljujemo pod punom vlastitom odgovornošću da je proizvod APG, na koji se odnosi deklaracija ispod, u skladu sa dole prikazanim direktivama Saveta za usklađivanje zakona država članica EC/EU.

Napomena: Ispod su navedena dva seta direktiva Saveta. Jedan set se odnosi na vreme do i uključuje 19. april 2016. Drugi set se odnosi na vreme od 20. aprila 2016, pa nadalje.

BG: Декларация за съответствие на ЕС/ЕО

Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктът APG, за който се отнася настоящата декларация, отговаря на следните директиви на Съвета за уеднаквяване на правните разпоредби на държавите-членки на ЕС/ЕО.

Забележка: По-долу има изброени две групи директиви и стандарти на Съвета. Едната група е в сила до 19 април 2016 г. включително. Другата група е в сила от 20 април 2016 г.

DK: EF/EU-overensstemmelseserklæring

Vi, Grundfos, erklærer under ansvar at produktet APG som erklæringen nedenfor omhandler, er i overensstemmelse med Rådets direktiver der er nævnt nedenfor, om indbyrdes tilnærmelse til EF/EU-medlemsstaternes lovgivning.

Bemærk: Der er angivet to sæt af Rådets direktiver og standarder nedenfor. Det ene sæt gælder til og med 19. april 2016. Det andet sæt gælder fra og med 20. april 2016.

FI: EY/EU-vaatimustenmukaisuusvakuutus

Grundfos vakuuttaa omalla vastuullaan, että tuoteet APG, joita tämä vakuutus koskee, ovat EY/EU:n jäsenvaltioiden lainsäädännön lähentämiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukaisia seuraavasti.

Huomautus: Seuraavassa on lueteltu kaksi erilaista neuvoston direktiivien ja standardien sarjaa. Yhden sarjan viimeinen voimaansaapäävä on 19. huhtikuuta 2016. Toinen sarja on voimassa 20. huhtikuuta 2016 alkaen.

GR: Δήλωση συμμόρφωσης ΕΚ/ΕΕ

Εμείς, η Grundfos, δηλώνουμε με αποκλειστική δική μας ευθύνη ότι το προϊόν APG, στο οποίο αναφέρεται η παρακάτω δήλωση, συμμορφώνεται με τις παρακάτω Οδηγίες του Συμβουλίου περί προσγγίσης των νομοθεσιών των κρατών μελών της ΕΚ/ΕΕ.

Σημείωση: Υπάρχουν δύο σει Οδηγιών Συμβουλίου και προτύπων που παρατίθενται παρακάτω. Το ένα σει ισχύει μέχρι και την 19η Απριλίου 2016. Το άλλο σει ισχύει από την 20η Απριλίου 2016 και μετέπειτα.

HU: EC/EU megfelelősségi nyilatkozat

Mi, a Grundfos vállalata, teljes felelősséggel kijelentjük, hogy a(z) APG termék, amelyre az alábbi nyilatkozat vonatkozik, megfelel az Európai Közösség/Európai Unió tagállamainak jogi irányelveit összehangoló tanács albi előírásainak.

Megjegyzés: Az alábbiakban a Tanács irányelvei és szabványai közül két csomagot ismertetünk. Az egyik csomag 2016. április 19-ével bezárólag érvényes. A másik csomag 2016. április 20-tól érvényes.

NL: EG/EU-conformiteitsverklaring

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat product APG, waarop de onderstaande verklaring betrekking heeft, in overeenstemming is met de onderstaande Richtlijnen van de Raad inzake de onderlinge aanpassing van de wetgeving van de EG-/EU-lidstaten.

Opmerking: Hieronder worden twee reeksen Richtlijnen van de Raad en normen weergegeven. De ene set geldt tot en met 19 april 2016. De andere set is vanaf 20 april 2016 van kracht.

RO: Declarația de conformitate CE/UE

Noi Grundfos declarăm pe propria răspundere că produsul APG, la care se referă această declarație, este în conformitate cu Directivele de Consiliu specificate mai jos privind armonizarea legilor statelor membre CE/UE.

Notă: Există două seturi de directive și standarde ale Consiliului specificate mai jos. Un set se aplică până la, și inclusiv în 19 aprilie 2016. Celălalt set se aplică de la 20 aprilie 2016 și în continuare.

RU: Декларация о соответствии нормам ЭЭС/ЕС

Мы, компания Grundfos, со всей ответственностью заявляем, что изделие APG, к которому относится нижеприведенная декларация, соответствует нижеприведенным Директивам Совета Евросоюза о тождественности законов стран-членов ЭЭС/ЕС.

Примечание: Существует два комплекта Директив Совета Евросоюза и стандартов, перечисленных ниже. Один комплект применяется до 19 апреля 2016 г. включительно. Второй комплект применяется начиная с 20 апреля 2016 г.

SE: EG/EU-försäkran om överensstämmelse

Vi, Grundfos, försäkrar under ansvar att produkterna APG, som omfattas av nedanstående försäkran, är i överensstämmelse med de rådskdirektiv om inbördes närmande till EG/EU-medlemsstaternas lagstiftning som listas nedan.

Obs! Det finns två uppsättningar rådskdirektiv och standarder listade nedan. En uppsättning gäller till och med den 19 april 2016. Den andra uppsättningen gäller från den 20 april 2016 och tills vidare.

NO: EFs/EUs samsvarsærklæring

Vi, Grundfos, erklærer under vårt eneansvar at produktet APG, som denne erklæringen gjelder, er i samsvar med Det europeiske råds direktiver om tilnærming av forordninger i EF-/EU-landene.

These Directives and standards apply until and including 19th April 2016:

- Machinery Directive (98/37/EC).

CN: 欧共体 / 欧盟符合性声明

我们，格兰富，在我们的全权责任下声明，产品 APG，即该合格证所指之产品，符合欧共体 / 欧盟使其成员国法律趋于一致的以下理事会指令。

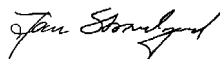
注意：有两套理事会指令和标准，如下所示。一套将于 2016 年 4 月 19 日失效。另一套将自 2016 年 4 月 20 日起生效。

These Directives and standards apply from 20th April 2016 and onwards:

- Machinery Directive (2006/42/EC).
Standard used: EN 60204 Part 1, EN ISO 12100-1 and -2.

This EC/EU declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions (publication number 96434822 0418).

Bjerringbro, 15 January 2016



Jan Strandgaard
Director
Grundfos Holding A/S
Poul Due Jensens Vej 7
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RU

APG

Руководство по эксплуатации

Руководство по эксплуатации на данное изделие является составным и включает в себя несколько частей:

Часть 1: настоящее «Руководство по эксплуатации».

Часть 2: электронная часть «Паспорт. Руководство по монтажу и эксплуатации» размещенная на сайте компании Грундфос:

<http://net.grundfos.com/qri/98860792>

Часть 3: информация о сроке изготовления, размещенная на фирменной табличке изделия.



Сведения о сертификации:

Насосы типа APG сертифицированы на соответствие требованиям Технических регламентов Таможенного союза: ТР ТС 004/2011 «О безопасности низковольтного оборудования»; ТР ТС 010/2011 «О безопасности машин и оборудования»; ТР ТС 020/2011 «Электромагнитная совместимость технических средств».

Сертификат соответствия:

№ TC RU C-DK.АИ30.В.01357, срок действия до 18.02.2020 г.

Выдан:

Органом по сертификации продукции «ИВАНОВО-СЕРТИФИКАТ» ООО «Ивановский Фонд Сертификации». Адрес: 153032, Российская Федерация, г. Иваново, ул. Станкостроителей, д.1.

KZ

APG

Пайдалану бойынша нұсқаулық

Атаулы өнімге арналған пайдалану бойынша нұсқаулық құрамалы болып келеді және келесі бөлімдерден тұрад

1 бөлім: атаулы «Пайдалану бойынша нұсқаулық»

2 бөлім: Грундфос компаниясының сайтында орналасқан электронды бөлім «Төлқұжат, Құрастыру және пайдалану бойынша нұсқаулық»:

<http://net.grundfos.com/qri/98860792>

3 бөлім: өнімнің фирмалық тақташасында орналасқан шығарылған уақыты жөніндегі мәлімет.



Сертификаттау туралы ақпарат:

APG типті сорғылары «Төмен вольтты жабдықтардың қауіпсіздігі туралы» (ТР ТС 004/2011), «Машиналар және жабдықтар қауіпсіздігі туралы» (ТР ТС 010/2011) «Техникалық заттардың электрлі магниттік сәйкестілігі» (ТР ТС 020/2011) Кеден Одағының техникалық регламенттерінің талаптарына сәйкес сертификатталды.

Сәйкестік сертификаты:

№ TC RU C-DK.АИ30.В.01357, жарамдылық мерзімі 18.02.2020 жылға дейін.

«Иваново Сертификаттау Қоры» ЖШҚ «ИВАНОВО-СЕРТИФИКАТ» өнімді сертификациялау бойынша органымен берілген.

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