

BM, BMhp

Installation and operating instructions



English (GB) Installation and operating instructions

Original installation and operating instructions

CONTENTS

	Page
1. General information	2
1.1 Hazard statements	2
1.2 Notes	2
2. General description	3
2.1 Pumped liquids	3
2.2 Sound pressure level	3
3. Delivery, transportation and storage	3
3.1 Frost protection	3
4. Preparation	4
5. Mechanical installation	4
5.1 Booster modules connected in series and in parallel	5
6. Pipe connection	6
7. Electrical connection	6
7.1 Frequency converter operation	7
8. Motor protection	7
8.1 Setting of motor-protective circuit breaker	7
9. Before starting the booster module(s)	8
10. Operation	8
10.1 Limitations to operation	8
11. Automatic monitoring devices	9
12. Checking of operation	9
13. Fault finding the product	10
14. Service documentation	10
15. Checking of motor and cable	11
16. Disposing of the product	11

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 explosion-proof 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.



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

1. General information

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 hazard

Consequence of ignoring the warning.
- Action to avoid the hazard.

2. General description

Grundfos BM and BMhp booster modules are designed for pressure boosting, liquid transfer and circulation in systems with a high static pressure.

2.1 Pumped liquids

The pumps are suitable for pumping thin, non-explosive liquids, not containing abrasive particles or fibres. The liquid must not attack the pump materials chemically and mechanically.



Do not use the pumps for pumping flammable or combustible liquids such as diesel oil, petrol or similar liquids.

2.2 Sound pressure level

The sound pressure level of BM 4" and BM and BMhp 6" booster modules is lower than 70 dB(A).

The sound pressure level of BM and BMhp 8" booster modules is lower than 80 dB(A).

3. Delivery, transportation and storage

Delivery

The booster modules are supplied from the factory in proper packing in which they should remain until they are to be installed. The modules are ready for installation.

Transportation and storage

CAUTION

Crushing of feet



Minor or moderate personal injury

- The pump must be stored in dry conditions.
- Observe the centre of gravity marked on the box when lifting the pump.
- Wear a personal protective equipment.

During transportation and storage, the booster modules may only be placed in the positions shown in fig. 1.

Before storage, the booster modules must be flushed through with clean freshwater. See section [10.1.2 Flushing of the booster module](#).

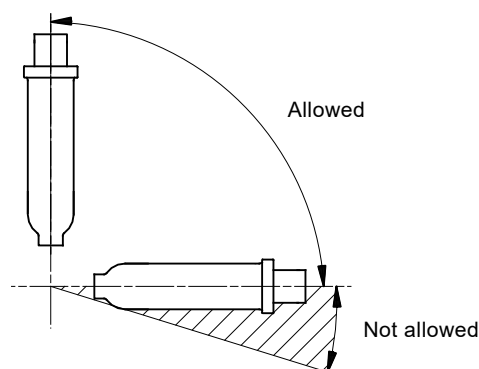


Fig. 1 Positional requirements



If the module has been stored for more than one year, the motor liquid must be checked and refilled, if required.

Motors of standard modules are factory-filled with a Grundfos motor liquid, SML-3, which is frost-proof down to -20 °C.

Motors of modules in special versions may be filled with demineralised water, that is not frost-proof.

3.1 Frost protection

If the module has to be stored, it must be stored on a frost-free location, or it must be ensured that the motor liquid is frost-proof.

TM01 1282 4197

4. Preparation

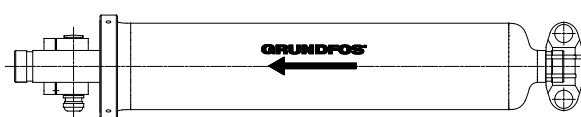
Before installation, the following checks must be made:

- Check for transport damages**
Make sure that the module has not been damaged during transportation.
- Type of module**
Check that the type designation given on the nameplate fitted to the sleeve corresponds to the order.
- Power supply**
The motor voltage and frequency are marked on the nameplate. Make sure that the motor is suitable for the power supply on which it will be used.
- Liquid in motor**
If a module has been stored for more than one year, check the motor liquid and refill, if required. Contact Grundfos. If a module is supplied for a special system, the motor may be supplied without liquid or with demineralised water. See section 3. *Delivery, transportation and storage*.

Versions

BM 4"

Straight version



TM00 3793 4698

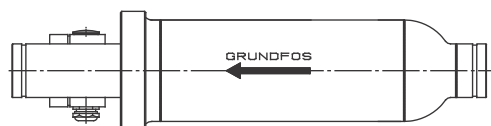
Bent version



TM00 3794 4698

BM/BMhp 6"

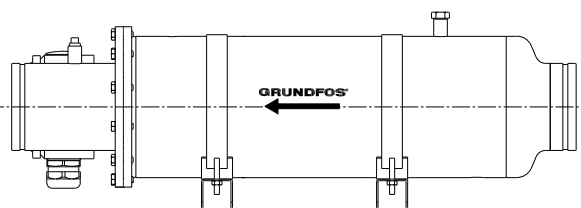
BM/BMhp 6" is only available in straight version.



TM00 4019 2410

BM/BMhp 8"

BM/BMhp 8" is only available in straight version.



TM01 1420 1912

Fig. 2 Flow directions

5. Mechanical installation

WARNING

Electric shock



Death or serious personal injury

- The electrical installation must be carried out by an authorised person in accordance with local regulations.

Grundfos booster modules are as standard supplied without a built-in non-return valve. However, a non-return valve can be built in on request. See fig. 7.

In systems involving the risk of water hammer in connection with start/stop, the necessary measures must be taken to minimise this risk.

The booster modules are suitable for both vertical and horizontal installation, however, the outlet port must never fall below the horizontal plane. See fig. 3.

An arrow on the module sleeve shows the direction of flow of liquid through the module. See fig. 2.

The module is fastened by means of clamps. See fig. 5.

WARNING

Falling objects

Death or serious personal injury



- Observe local regulations concerning limits for manual lifting or handling. See weight on the nameplate.
- Note that the module has an uneven weight distribution. Because of the motor, the largest weight will be in the first third of the sleeve (when seen from the outlet port).
- Use straps on the motor, and do not lift the pump by the terminal box.
- Use certified and approved lifting equipment.

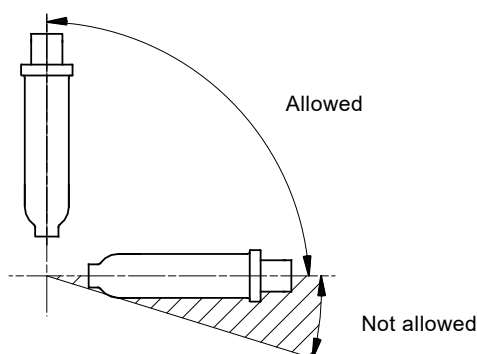


Fig. 3 Positional requirements

TM01 1282 4197

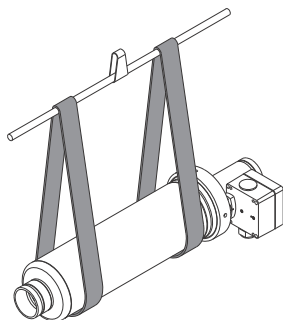


Fig. 4 How to lift the pump



If you do not follow these instructions, there is a risk of warping or crushing some of the equipment such as the terminal box, cover or drip cover.

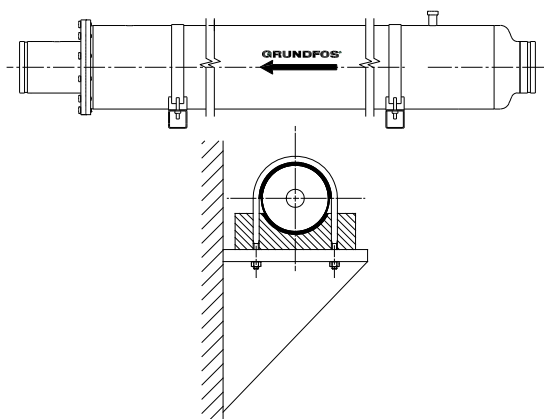


Fig. 5 Fastening by means of clamps

5.1 Booster modules connected in series and in parallel

- For modules connected in series, mounted above each other, we recommend to connect the pipes as shown in fig. 6.
- For modules connected in parallel, mounted above each other, we recommend to connect the pipes as shown in fig. 7. This layout ensures that the modules are filled with water before starting.
- For modules connected in series and parallel, mounted above each other, we recommend to connect the pipes as shown in fig. 8.
- For modules connected in series and fitted with a bypass, mounted above each other, we recommend to connect the pipes as shown in fig. 9.

Symbols used in figures 6 to 9:

- : Air escape valve
- : Isolating valve
- : Non-return valve
- : Pressure switch
- : Flow switch
- : Pressure gauge
- : Motor-operated valve
- : Diaphragm tank

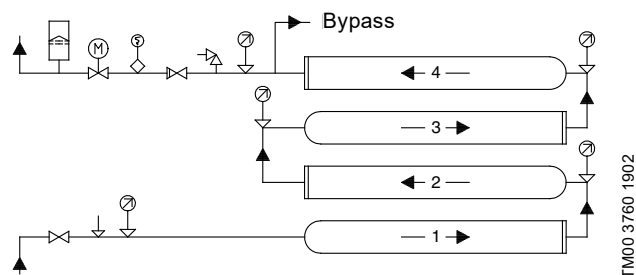


Fig. 6 Booster system with four modules connected in series, mounted above each other

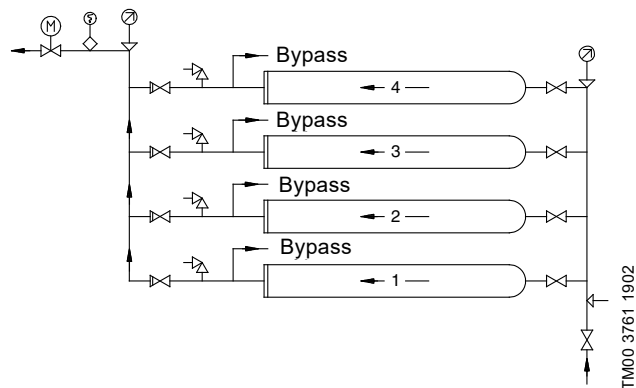


Fig. 7 Booster system with four modules connected in parallel, mounted above each other

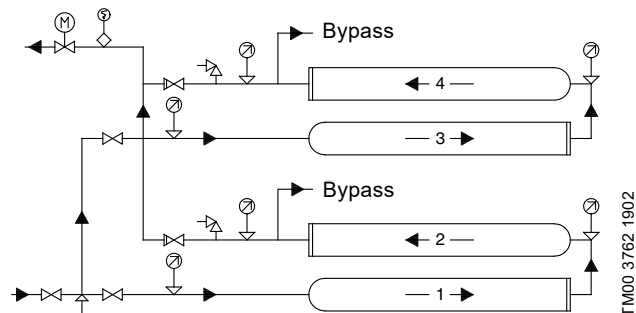


Fig. 8 Booster system with two modules connected in series and in parallel, mounted above each other

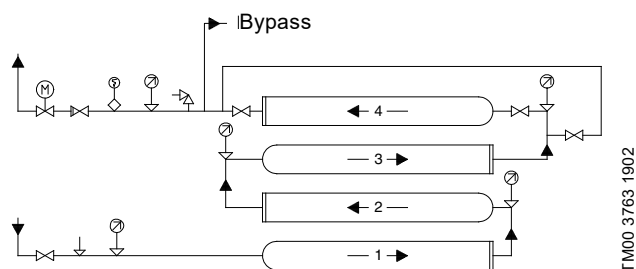


Fig. 9 Booster system with four modules connected in series with bypass, mounted above each other

WARNING

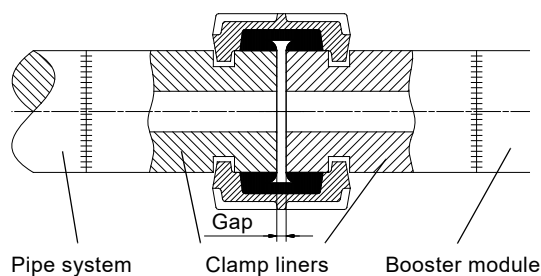
Description of hazard

- Death or serious personal injury
- Make sure that the pump and the system are fully vented before startup.



6. Pipe connection

The booster modules are fitted with clamp liners for Victaulic/PJE clamp couplings on the inlet and outlet sides. See fig. 10.



TM01 1066 3597

Fig. 10 Pipe connection using clamp couplings



WARNING

Pressurised system

Death or serious personal injury
- Avoid stress in the pipe system.



Clean Victaulic connections, rubber and pipes, with freshwater in order to prevent crevice corrosion.

Size	Type	Victaulic coupling	Gap [mm]
BM 4"	BM 3A - BM 9	1 1/4" Ø42	1
BM/BMhp 6"	BM 17 - BM 60	3" Ø89	3
BM 8"	BM 30 - BM 46	3" Ø89	3
BM 8"	BM 60	4" Ø114	6
BM/BMhp 8"	BM 77 - BM 95	5" Ø139	6
BM/BMhp 8"	BM 125 - BM 215	6" Ø168	6

7. Electrical connection

The electrical connection must be carried out by an authorised electrician in accordance with local regulations.



WARNING

Electric shock

Death or serious personal injury
- Before starting any work on the product, make sure that the power supply has been switched off and that it cannot be accidentally switched on.

DANGER

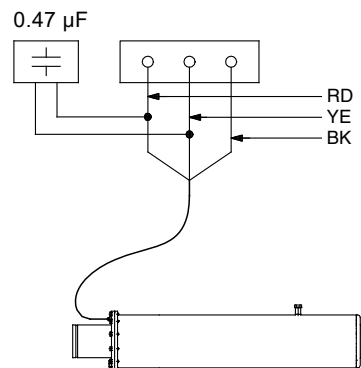
Electric shock

Death or serious personal injury
- Connect the pump to an external main switch placed close to the pump and to a motor-protective circuit breaker or a frequency converter.
- It must be possible to lock the main switch in OFF position (isolated). Type and requirements as specified in EN 60204-1, 5.3.2.
- The pump must be earthed.



The required voltage quality measured at the module terminals is - 10 %/+ 6 % of the rated voltage during continuous operation (including variation in the supply voltage and losses in cables). Check that there is voltage symmetry in the power supply lines, that is approximately same difference of voltage between the individual phases. See also section 15. *Checking of motor and cable*, point 1.

In order for the modules to meet the EC EMC Directive (2014/30/EU), a 0.47 µF capacitor (in accordance with IEC 384-14) must always be connected over the two phases to which the temperature transmitter is connected. See fig. 11.



RD = Red
YE = Yellow
BK = Black

Fig. 11 Electrical connection

The electrical connections must be made close to the flange (fig. 12), either by means of a terminal box (figs 13 and 14) or a cable termination kit.

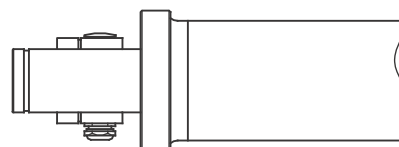


Fig. 12 BM/BMhp with terminal box

Note: In case frequency converter operation is wanted. Do not mount the 0.47 µF capacitor.

BM 4", BM/BMhp 6", BM/BMhp 8"

Direct-on-line

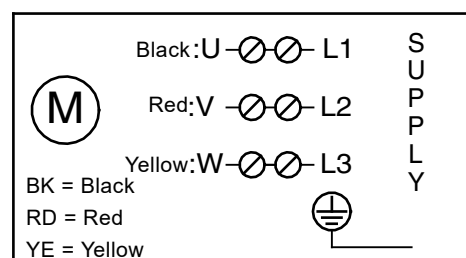


Fig. 13 Wiring diagram, DOL connection

BM/BMhp 6", BM/BMhp 8"

Star-delta starting

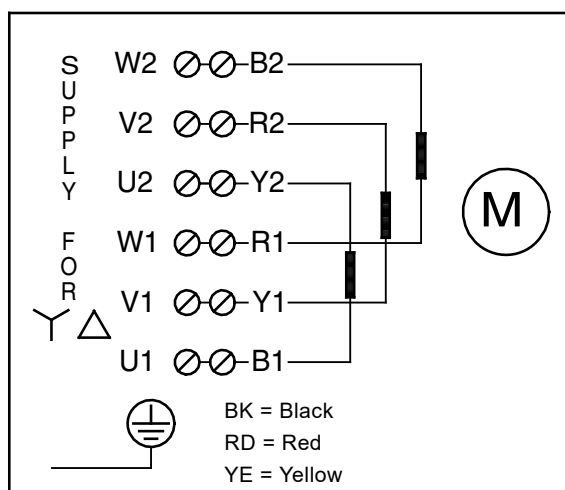


Fig. 14 Wiring diagram, star-delta connection

7.1 Frequency converter operation

Grundfos motors

Three-phase Grundfos MS and MMS motors can be connected to a frequency converter.

If a frequency converter is to be used for booster modules connected in series, it must be connected to the last module in the flow direction.

We recommend Grundfos CUE. The CUE is a series of frequency converters designed for speed control of a wide range of Grundfos products, for example BM and BMhp.



If a Grundfos MS motor with a temperature transmitter is connected to a frequency converter, a fuse incorporated in the transmitter will melt, and the transmitter will be inactive. The transmitter cannot be reactivated. This means that the motor will operate like a motor without a temperature transmitter.

During frequency converter operation, we do not recommend to run the motor at a frequency higher than the rated frequency (50 or 60 Hz). In connection with pump operation, it is important never to reduce the frequency, and consequently the speed, to such a level that the necessary flow rate of cooling liquid past the motor is no longer ensured.

The permissible frequency ranges are 30-50 Hz and 30-60 Hz, respectively.

During start, the maximum acceleration time from 0 to 30 Hz is 3 seconds.

During stop, the maximum deceleration time from 30 to 0 Hz is 3 seconds.

Depending on the frequency converter type, it may expose the motor to detrimental voltage peaks.

The above disturbance can be abated by installing an RC filter between the frequency converter and the motor.

Possible increased acoustic noise from the motor can be abated by installing an LC filter which will also eliminate voltage peaks from the frequency converter.

For further details, please contact your frequency converter supplier or Grundfos.

8. Motor protection

The booster module must be connected to an effective motor-protective circuit breaker which must protect the motor against damage from voltage drop, phase failure, overload and a locked rotor.

In power supply systems where undervoltage and variations in phase symmetry may occur, a phase failure relay must also be fitted. See section [15. Checking of motor and cable](#).

The control circuit must always be made in such a way that all modules are stopped if one module fails.

8.1 Setting of motor-protective circuit breaker

For cold motors, the tripping time for the motor-protective circuit breaker must be less than 10 seconds (Class 10) at 5 times the rated full-load current ($I_{1/1}/I_{SFA}$) of the module. See the module nameplate.



If this requirement is not met, the motor warranty will be invalidated.

In order to ensure the optimum protection of the submersible motor, the motor-protective circuit breaker must be set in accordance with the following guidelines:

1. Set the motor-protective circuit breaker to the rated full-load current ($I_{1/1}/I_{SFA}$) of the module.
2. Start the module, and let it run for half an hour at normal performance. See section [9. Before starting the booster module\(s\)](#).
3. Slowly grade down the scale indicator until the motor trip point is reached.
4. Increase the overload setting by 5 %.

The highest permissible setting is the rated full-load current ($I_{1/1}/I_{SFA}$) of the module.

For modules wound for star-delta starting, the motor-protective circuit breaker must be set as described above, but the maximum setting must be as follows:

Motor-protective circuit breaker setting = rated full-load current x 0.58.

The highest permissible startup time for star-delta starting is 2 seconds.

9. Before starting the booster module(s)

The booster module(s) must be filled with water before startup.

Procedure:

1. Loosen the vent valve of the booster module, if any.
2. Ensure an inlet pressure on the booster module.
3. Completely open the isolating valve.
4. Wait 3 to 5 minutes to ensure optimum venting.
5. Tighten and clean the vent valve.

Checking the direction of rotation

Procedure:

1. Close the isolating valve on the outlet side of module 1 (figures 6 to 9) to approximately 1/3 of maximum flow rate.
2. Start module 1, and record outlet pressure and flow readings.
3. Stop the module, and interchange two of the phases to the module.
4. Restart the module, and re-record outlet pressure and flow readings.
5. Stop the module.
6. Compare the results taken under points 2 and 4. The connection which gave the larger pressure and flow rate is the correct direction of rotation.

The check of the direction of rotation should last for the shortest possible time.

If the booster system has several modules, starting and rotation checks must be made in the order 1-2-3-4 until all modules are running. When module 2 is checked, module 1 must be running. When module 3 is checked, modules 1 and 2 must be running, etc.

If modules in series are also connected in parallel (fig. 8), the direction of rotation of each section connected in series must be checked.

After having checked the direction of rotation, stop the modules in the order 4-3-2-1.

The booster system is now ready for operation.

10. Operation

Start

WARNING

Pressurised system

Death or serious personal injury

- The pump must not run against a closed outlet valve for more than 5 seconds.
- Ensure a minimum liquid flow rate through the pump by connecting a bypass or drain to the outlet side of the pump. The drain can be connected to a tank.



WARNING

Pressurised system

Death or serious personal injury

- Be aware of pressurised pipe systems even after shutdown.



The booster modules must be started in the order 1-2-3-4 at intervals of 1 to 2 seconds. See section [5.1 Booster modules connected in series and in parallel](#). If other intervals are required, contact Grundfos.

Module 1 is always the first module on the inlet side. During startup, we recommend to close the isolating valve 3/4 and open it slowly (2 to 3 seconds).

In systems involving the risk of water hammer in connection with start/stop, the necessary measures must be taken to minimise this risk, for example by installing a diaphragm tank.

Operation

During operation, the inlet pressure must be checked in accordance with section [10.1 Limitations to operation](#).

The total outlet pressure and flow rate of modules connected in series must never be changed by stopping one or more of the modules. If other pressures or flow rates are required, the following procedures are applicable:

- Bypass of module(s): Install a bypass between two modules. See fig. 9.
Stop the module(s) which is/are not required, and close the isolating valves on either side of the module. See section [10.1.2 Flushing of the booster module](#).
The module(s) to be bypassed is/are always the last module(s) in the flow direction.
- Fit a reducing valve to the outlet pipe.
The values stated in section [10.1 Limitations to operation](#) must be observed.
- Modules with three-phase motors: Install a frequency converter for speed control of the last booster module in the flow direction. See section [7.1 Frequency converter operation](#).

Stop

The modules must be stopped in reverse order, that is 4-3-2-1, at intervals of 1 to 2 seconds. See section [5.1 Booster modules connected in series and in parallel](#).

If the booster system is taken out of operation for a long period, the modules must be flushed through with clean freshwater. See section [10.1.2 Flushing of the booster module](#). The modules are then left with freshwater until they are to be used again.

10.1 Limitations to operation

The flow limits stated in the table below apply to the optimum operating ranges of the modules as regards efficiency.

Type	Recommended flow rate at 25 °C / 77 °F			
	m ³ /h		US gpm	
	50 Hz	60 Hz	50 Hz	60 Hz
BM 3A	0.8 - 4.4	1.0 - 4.7	3.5 - 20	4.4 - 21
BM 5A	2.5 - 6.8	3.0 - 7.7	11-30	13-34
BM 9	4.0 - 11	4.8 - 11	17-48	21-48
BM/BMhp 17	8-22	10-26	35-176	44-115
BM/BMhp 30	15-38	19-45	66-167	84-198
BM/BMhp 46	24-60	28-72	106-264	123-317
BM/BMhp 60	30-75	37-90	132-330	163-396
BM/BMhp 77	38-96	47-120	167-422	207-528
BM/BMhp 95	47-118	57-143	207-520	251-629
BM/BMhp 125	62-156	75-187	273-686	330-823
BM/BMhp 160	78-195	90-215	343-858	396-946
BM/BMhp 215	98-265	115-310	431-1166	506-1364

The pressure limits stated in the table below must be observed.

Recommended pressure ¹⁾						
Type	Inlet pressure				Outlet pressure	
	Min.		Max. ²⁾		Max. ²⁾	
	[bar]	[psi]	[bar]	[psi]	[bar]	[psi]
BM 4"	0.5	7.25	60 ³⁾	870	80	1160
BM 6"	0.5	7.25	60 ³⁾	725	80	1160
BM 8"	1	14.5	60 ⁴⁾	362	70	1015
BMhp 6"	0.5	7.25	80	725	80	1160
BMhp 8"	1	14.5	80	362	80	1015

1) Contact Grundfos if higher pressures are required.

2) Note that if the maximum inlet/outlet pressure is exceeded, install a safety valve.

3) Only for the R-version. For other versions, 50 bar applies

4) Only for the R-version. For other versions, 25 bar applies.

10.1.1 Cooling

The temperature and flow limits stated in the table below must be observed to ensure sufficient cooling of the motor.

Maximum permissible liquid temperature				
Motor	Maximum liquid temperature		Minimum flow velocity past the motor	Minimum flow rate
	[°C]	[°F]	[m/s (ft/s)]	[m³/h (US GPM)]
Grundfos 4"	40	104	≥ 0.15 (0.49)	≥ 0.8 (3.5)
Grundfos 6"	40	104	≥ 0.15 (0.49)	≥ 5.5 (24)
Grundfos 8"	40	104	≥ 0.15 (0.49)	≥ 18.5 (81.5)

10.1.2 Flushing of the booster module

When a module is flushed, the flow rate must be reduced to maximum 10 % of the rated flow at a minimum pressure of 2 bar. The modules must be stopped while the system is flushed. See section [10. Operation](#).



When pumping water with a salinity above 2000 ppm NaCl, the module must be flushed through in the flow direction as described in the following.

The flushing procedure depends on the operating condition:

- Intermittent operation**

If the booster module has to be stopped for more than 30 minutes, it must be flushed through with clean freshwater for approximately 10 minutes. The flushing must be continued until the module is completely filled with clean freshwater. The salinity of the flush water must be below 500 ppm on the outlet side.

- Continuous**

- Operation**

BM: Once every 24 hours, the module must be stopped and flushed through with the pumped liquid by means of the feed pump.

BMhp: Due to an internal bypass, it is not necessary to stop the BMhp booster modules every 24 hours.

- Interruption of operation**

In case of power, pump or motor failure, the booster module must be cooled and flushed through with clean freshwater. The drain plug can be used when flushing the booster module. The booster module can also be disconnected, removed, dismantled and cleaned with clean freshwater.

10.1.3 Frequency of starts and stops

Minimum 1 per year is recommended.

Maximum 20 per hour.

Maximum 100 per day.



8" modules: Maximum 20 per day.

11. Automatic monitoring devices

To protect the modules against dry running and to ensure a minimum flow rate of cooling water past the motors, the system must be fitted with flow and pressure monitoring devices (figures 6 to 9).

The pressure switch on the inlet side is set in accordance with the estimated inlet pressure. At a pressure lower than 0.5 bar for BM 4" and BM/BMhp 6", and 1 bar for BM/BMhp 8", an alarm is given and the module must be stopped without delay.

All outlet connections to the system must be fitted with a flow switch which will stop the system at the set minimum flow rates.

The above monitoring devices ensure a correct inlet pressure and a minimum flow rate of cooling water past the motor.

If the modules are stopped automatically, we recommend automatic flushing. See section [10.1.2 Flushing of the booster module](#).

12. Checking of operation

Depending on the number of operating hours of the modules, the following must be checked at suitable intervals:

- flow
- starting frequency
- control and protective devices
- liquid temperature
- minimum flow rate through modules during operation.

If any of the above checks reveal any abnormal operating details, inspection must be carried out in accordance with section [13. Fault finding the product](#).

We recommend to use the log book at the end of these instructions.

13. Fault finding the product

DANGER

Electric shock



Death or serious personal injury

- Before starting any work on the product, make sure that the power supply has been switched off and that it cannot be accidentally switched on.

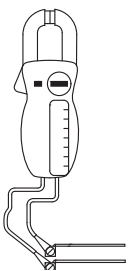
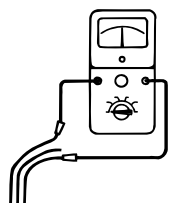
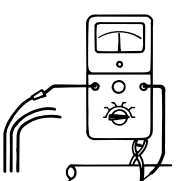
Fault	Cause	Remedy
1. The booster system stops occasionally. One or more modules stop.	a) No or insufficient water supply. The pressure switch has cut out.	Check that the pressure switch functions normally (without delay) and is adjusted correctly. Check that the minimum inlet pressure is correct.
	b) The capacity is too small. The flow switch has cut out.	The outlet pipe is totally or partly blocked due to incorrectly adjusted manually operated valve or failure in the magnetic or motor-operated valve. Check these valves. The flow switch is faulty or incorrectly adjusted. Check/adjust the switch.
2. The booster system does not run.	a) The fuses are blown.	Check and replace both main fuses and/or fuses for the control circuit.
	b) The motor-protective circuit breaker has tripped.	Reset the motor-protective circuit breaker. If it trips again, the voltage must be checked.
	c) The magnetic coil of motor-protective circuit breaker/contactors is short-circuited (not cutting in).	Replace the coil. Check the coil voltage.
	d) The control circuit has cut out or is defective.	Check the control circuit and the contacts in the monitoring devices (pressure switch, flow switch, etc.).
	e) The motor/supply cable is defective.	Check motor and cable. See also section 15. Checking of motor and cable .
3. The booster system runs, but gives no water or develops no pressure.	a) No water or too small quantity delivered to the modules or air in the system.	Check that the inlet pressure during operation is at least 0.5 bar for BM 4" and BM/BMhp 6", and 1 bar for BM/BMhp 8". If this is the case, the water supply is OK. Stop and vent the system. Restart the system as described in section 10. Operation . If the module is defective, it must be dismantled and repaired or replaced.
	b) Inlet parts are blocked.	Pull the pump out of the sleeve, and clean the inlet parts.
4. The booster system runs at reduced capacity (flow rate and pressure).	a) Wrong direction of rotation.	See section 9. Before starting the booster module(s) .
	b) The valves on the outlet side are partly closed or blocked.	Check valves.
	c) The outlet pipe is partly blocked by impurities.	Measure the outlet pressure and compare with the calculated data. Clean or replace the outlet pipe.
	d) The module is partly blocked by impurities.	Pull the pump out of the sleeve. Dismantle, clean and check the pump. Replace defective parts. Clean the pipes.
	e) The module is defective.	Pull the pump out of the sleeve. Dismantle, clean and check the pump. Replace defective parts. See section 14. Service documentation .

14. Service documentation

Service documentation is available in Grundfos Product Center:
<http://product-selection.grundfos.com/>.

If you have any questions, please contact the nearest Grundfos company or service workshop.

15. Checking of motor and cable

1. Supply voltage  Voltmeter TM00 1371 5092	Measure the voltage between the phases by means of a voltmeter. Connect the voltmeter to the terminals in the motor-protective circuit breaker.	The voltage must, when the motor is loaded, be within - 10 %/+ 6 % of the rated voltage. In case of larger variations in voltage, the motor may burn. If the voltage is constantly too high or too low, the motor must be replaced by one corresponding to the supply voltage. Large variations in voltage indicate poor power supply, and the module must be stopped until the fault has been found. Resetting of the motor-protective circuit breaker may be necessary.
2. Current consumption  Ammeter TM00 1372 5092	Measure the current of each phase while the module is operating at a constant outlet pressure (if possible at the capacity where the motor is most heavily loaded). For normal operating current, see the nameplate.	Calculate the current unbalance (%) in the three phases as follows: 1. Add up the three phase currents. 2. Divide this value by three to ascertain the average current. 3. Find the phase current differing most from the average current. 4. Compare the results from points 2 and 3. 5. Divide the difference by the average value and multiply by 100. The result is the current unbalance in percentage. For three-phase motors, the current unbalance must not exceed 5 %. If so, or if the current exceeds the maximum operating current, there are the following possible faults: • The contacts of the motor-protective circuit breaker are burnt. Replace the contacts. • Poor connection in leads, possibly in terminal box. • Too high or too low supply voltage. See point 1. • The motor windings are short-circuited or partly disjointed. See point 3. • Damaged pump is causing the motor to be overloaded. Pull the pump out of the sleeve for overhaul. • The resistance value of the motor windings deviates too much. Move the phases in phase order to a more uniform load. If this does not help, see point 3.
Items 3 and 4: Measurement not necessary if supply voltage and current consumption are normal.		
3. Winding resistance  Ohmmeter TM00 1373 5092	Remove the phase leads from the terminal box. Measure the winding resistance as shown on the drawing.	The highest value must not exceed the lowest value by more than 10 %. If the deviation is higher, pull the pump out of the sleeve. Measure motor and cable separately, and replace or repair defective parts. See section 14. Service documentation.
4. Insulation resistance  Megohmmeter TM00 1374 5092	Remove the phase leads from the terminal box. Measure the insulation resistance from each phase to earth (frame). Make sure that the earth connection is made carefully.	If the measured insulation resistance is less than 0.5 MΩ and the supply cable is OK, pull the pump out of the sleeve for motor or cable repair or replacement. See section 14. Service documentation.

16. 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 wheellie 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.

System sketch

Declaration of conformity

GB: EC declaration of conformity

We, Grundfos, declare under our sole responsibility that the products BM and BMhp, to which this declaration relates, are in conformity with these Council directives on the approximation of the laws of the EC member states:

CZ: ES prohlášení o shodě

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobky BM a BMhp, na něž se toto prohlášení vztahuje, jsou v souladu s ustanoveními směrnice Rady pro sblížení právních předpisů členských států Evropského společenství v oblastech:

DK: EF-overensstemmelseserklæring

Vi, Grundfos, erklærer under ansvar at produkterne BM og BMhp som denne erklæring omhandler, er i overensstemmelse med disse af Rådets direktiver om indbyrdes tilnærmelse til EF-medlemsstaternes lovgivning:

ES: Declaración CE de conformidad

Nosotros, Grundfos, declaramos bajo nuestra entera responsabilidad que los productos BM y BMhp, a los cuales se refiere esta declaración, están conformes con las Directivas del Consejo en la aproximación de las leyes de los Estados Miembros del EM:

FR: Déclaration de conformité CE

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits BM et BMhp, auxquels se réfère cette déclaration, sont conformes aux Directives du Conseil concernant le rapprochement des législations des Etats membres CE relatives aux normes énoncées ci-dessous :

HR: EZ izjava o usklađenosti

Mi, Grundfos, izjavljujemo pod vlastitom odgovornošću da je proizvod BM i BMhp, na koji se ova izjava odnosi, u skladu s direktivama ovog Vijeća o usklađivanju zakona država članica EU:

IT: Dichiarazione di conformità CE

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti BM e BMhp, ai quali si riferisce questa dichiarazione, sono conformi alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE:

LV: EK atbilstības deklarācija

Sabiedrība GRUNDFOS ar pilnu atbildību dara zināmu, ka produkti BM un BMhp, uz kuriem attiecas šīs paziņojums, atbilst šādām Padomes direktīvām par tuvināšanos EK dalībvalstu likumdošanas normām:

PL: Deklaracja zgodności WE

My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasze wyroby BM oraz BMhp, których deklaracja niniejsza dotyczy, są zgodne z następującymi wytycznymi Rady d/s ujednolicenia przepisów prawnych krajów członkowskich WE:

RO: Declarație de conformitate CE

Noi, Grundfos, declarăm pe propria răspundere că produsele BM și BMhp, la care se referă această declarație, sunt în conformitate cu aceste Directive de Consiliu asupra armonizării legilor Statelor Membre CE:

SE: EG-försäkran om överensstämmelse

Vi, Grundfos, försäkrar under ansvar att produkterna BM och BMhp, som omfattas av denna försäkran, är i överensstämmelse med rådets direktiv om inbördes närmande till EU-medlemsstaternas lagstiftning, avseende:

SK: Prehlásenie o konformite ES

My firma Grundfos prehlasujeme na svoju plnú zodpovednosť, že výrobky BM a BMhp, na ktoré sa toto prehlásenie vzťahuje, sú v súlade s ustanovením smernice Rady pre zblíženie právnych predpisov členských štátov Európskeho spoločenstva v oblastiach:

BG: EC декларация за съответствие

Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктите BM и BMhp, за които се отнася настоящата декларация, отговарят на следните указания на Съвета за уеднаквяване на правните разпоредби на държавите членки на ЕС:

DE: EG-Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass die Produkte BM und BMhp, auf die sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EU-Mitgliedsstaaten übereinstimmen:

EE: EL vastavusdeklaratsioon

Meie, Grundfos, deklareerime enda ainuvastutusel, et tooted BM ja BMhp, mille kohta käesolev juhend käib, on vastavuses EÜ Nõukogu direktiividega EMÜ liikmesriikide seaduste ühitamise kohta, mis käsitlevad:

FI: EY-vaatimustenmukaisuusvakuutus

Me, Grundfos, vakuutamme omalla vastuullamme, että tuotteet BM ja BMhp, joita tämä vakuutus koskee, ovat EY:n jäsenvaltioiden lainsäädännön yhdenmukaistamiseen tähtävien Euroopan neuvoston direktiivien vaatimusten mukaisia seuraavasti:

GR: Δήλωση συμμόρφωσης EC

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα BM και BMhp στα οποία αναφέρεται η παρούσα δήλωση, συμμορφώνονται με τις εξής Οδηγίες του Συμβουλίου περί προσέγγισης των νομοθεσιών των κρατών μελών της ΕΕ:

HU: EK megfeleléségi nyilatkozat

Mi, a Grundfos, egyedüli felelősséggel kijelentjük, hogy a BM és BMhp termékek, amelyekre jelen nyilatkozik vonatkozik, megfelelnek az Európai Unió tagállamainak jogi irányelveit összehangoló tanács alábbi előírásainak:

LT: EB atitikties deklaracija

Mes, Grundfos, su visa atsakomybe pareiškiame, kad gaminiai BM ir BMhp, kuriems skirta ši deklaracija, atitinka šias Tarybos Direktyvas dėl Europos Ekonominės Bendrijos šalių narių įstatymų suderinimo:

NL: EC overeenkomstigheidsverklaring

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat de producten BM en BMhp waarop deze verklaring betrekking heeft, in overeenstemming zijn met de Richtlijnen van de Raad in zake de onderlinge aanpassing van de wetgeving van de EG Lidstaten betreffende:

PT: Declaração de conformidade CE

A Grundfos declara sob sua única responsabilidade que os produtos BM e BMhp, aos quais diz respeito esta declaração, estão em conformidade com as seguintes Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da CE:

RS: EC deklaracija o usaglašenosti

Mi, Grundfos, izjavljujemo pod vlastitom odgovornošću da je proizvod BM i BMhp, na koji se ova izjava odnosi, u skladu sa direktivama Saveta za usklađivanje zakona država članica EU:

SI: ES izjava o skladnosti

V Grundfosu s polno odgovornostjo izjavljamo, da so naši izdelki BM in BMhp, na katere se ta izjava nanaša, v skladu z naslednjimi direktivami Sveta o približevanju zakonodaje za izenačevanje pravnih predpisov držav članic ES:

UA: Декларация відповідності ЄС

Компанія Grundfos заявляє про свою виключну відповідальність за те, що продукти BM та BMhp, на які поширюється дана декларація, відповідають таким рекомендаціям Ради з уніфікації правових норм країн - членів ЄС:

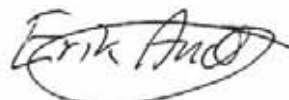
AR: إقرار المطابقة من EC (المجموعة الأوروبية)

نقرر نحن، جرونذفوس، بمقتضى مسؤوليتنا الفردية بأن المنتجات BM وBMhp، التي يختص بها هذا الإقرار، تكون مطابقة لتوجيهات المجلس بشأن التقريب بين قوانين الدول أعضاء المجموعة الأوروبية (EC):

- Machinery Directive (2006/42/EC)
Standard used: EN 809:1998+A1:2009.
- RoHS Directives: 2011/65/EU and 2015/863/EU
Standard: EN IEC 6300.0:2018
- EMC Directive (2014/30/EU)
Standard used : EN 60034-1:2010.
Applies only to pumps with Tempcon sensors.
- Ecodesign Directive (2009/125/EC)
Water pumps:
Commission Regulation No 547/2012.
Applies only to water pumps marked with the minimum efficiency index MEI. See pump nameplate.

This EC declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions (publication number 150095)

Bjerringbro, 26th November 2020



Erik Andersen
Senior Manager
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

Manufacturer, Person empowered to sign the EC/EU declaration of conformity.

UK declaration of conformity

We, Grundfos, declare under our sole responsibility that the products to which the declaration below relates, is in conformity with UK regulations, standards and specifications to which conformity is declared, as listed below:

Valid for Grundfos products:

BM, BMhp

- Supply of Machinery (Safety) Regulations 2008.
Standard used: BS EN 809:1998, A1:2009.
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2019.
Standard used: BS EN IEC 63000:2018
- Electromagnetic Compatibility Regulations 2016
Standard used: BS EN 60034-1:2010.
Applies only to pumps with Tempcon sensors.
- The Ecodesign for Energy-Related Products and Energy Information Regulations 2019.
Water pumps:
- Regulation (EU) No 547/2012.
Applies only to water pumps marked with the minimum efficiency index MEI. See pump nameplate.

This UK declaration of conformity is only valid when accompanying Grundfos instructions.

UK Importer: Grundfos Pumps Ltd. Grovebury Road, Leighton Buzzard, LU7 4TL.

Bjerringbro 26th November 2020



Erik Andersen
Senior manager
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

Manufacturer and person empowered to sign the UK declaration of conformity.

10000339567

Declaration of conformity

**GB: Moroccan declaration of conformity**

We, Grundfos, declare under our sole responsibility that the products to which the declaration below relates, are in conformity with Moroccan laws, orders, standards and specifications to which conformity is declared, as listed below:

Valid for Grundfos products:
BM, BMhp

Law No 24-09, 2011 Safety of products and services and the following orders:

Order No 2573-14, 2015 Safety Requirements for Low Voltage Electrical Equipment
Standards used: NM EN 809+A1:2015

For pumps with Tempcon sensors:
Order No 2574-14, 2015 Electromagnetic Compatibility
Standards used: NM EN 60034-1:2019

This Moroccan declaration of conformity is only valid when accompanying Grundfos instructions.

Bjerringbro, 19th August 2020

Erik Andersen
Senior manager
GRUNDFOS Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

Manufacturer and person empowered to sign the Moroccan declaration of conformity.

10000270344

**FR: Déclaration de conformité marocaine**

Nous, Grundfos, déclarons sous notre seule responsabilité que les produits auxquels se réfère cette déclaration, sont conformes aux lois, ordonnances, normes et spécifications marocaines pour lesquelles la conformité est déclarée, comme indiqué ci-dessous :

Valable pour les produits Grundfos:
BM, BMhp

Sécurité des produits et services, loi n° 24-09, 2011 et décrets suivants :

Exigences de sécurité pour les équipements électriques basse tension, ordonnance n° 2573-14, 2015
Normes utilisées: NM EN 809+A1:2015

Pour les pompes équipées de capteurs Tempcon:
Compatibilité électromagnétique, ordonnance n° 2574-14, 2015
Normes utilisées: NM EN 60034-1:2019

Cette déclaration de conformité marocaine est uniquement valide lorsqu'elle accompagne la notice d'installation et de fonctionnement Grundfos.

Bjerringbro, 19th August 2020

Erik Andersen
Senior manager
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

Fabricant et personne habilitée à signer la Déclaration de conformité marocaine.

10000270344

**AR: إقرار المطابقة المغربي**

نحن، جرونډفوس، نقر تحت مسؤوليتنا وحدنا بأن المنتجات التي يتعلق بها مغربية الإقرار أدناه، تتوافق مع القوانين والقرارات والمعايير والمواصفات التي تم إقرار المطابقة بشأنها، كما هو موضح أدناه:

سار على منتجات جرونډفوس:
BM, BMhp

قانون رقم 24-09، 2011 بشأن سلامة المنتجات والخدمات والقرارات التالية:

القرار رقم 14-2573، 2015 متطلبات السلامة للمعدات الكهربائية ذات الجهد المنخفض
المعايير المستخدمة:
NM EN 809+A1:2015

بالنسبة للمضخات المزودة بحساسات Tempcon :
القرار رقم 14-2574، 2015 التوافق الكهرومغناطيسي
المعايير المستخدمة:
NM EN 60034-1:2019

يكون إقرار المطابقة المغربي صالحاً فقط عند نشره كجزء من تعليمات جرونډفوس.

Bjerringbro, 19th August 2020

Erik Andersen
Senior manager
GRUNDFOS Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

الجهة المصنعة والشخص المفوض بتوقيع إقرار المطابقة المغربي.

10000270344

RUS

BM, BMh**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. Перейдите по ссылке, указанной в конце документа.

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

Сведения о сертификации:

Насосы типа BM, BMh 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».

KAZ

BM, BMh**Пайдалану бойынша нұсқаулық**

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

1 бөлім: атаулы «Пайдалану бойынша нұсқаулық»

2 бөлім: Грундфос компаниясының сайтында орналасқан электронды бөлім «Төлқұжат, Құрастыру және пайдалану бойынша нұсқаулық». Құжат соңында көрсетілген сілтеме арқылы өтіңіз.

3 бөлім: өнімнің фирмалық тақташасында орналасқан шығарылған уақыты жөніндегі мәлімет

Сертификаттау туралы ақпарат:

BM, BMh 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.

KG

BM, BMh**Пайдалануу боюнча колдонмо**

Аталган жабдууну пайдалануу боюнча колдонмо курамдык жана өзүнө бир нече бөлүкчөнү камтыйт:

1-Бөлүк: «Пайдалануу боюнча колдонмо»

2-Бөлүк: «Паспорт. Пайдалануу жана монтаж боюнча колдонмо» электрондук бөлүгү Грундфос компаниянын сайтында жайгашкан. Документтин аягында көрсөтүлгөн шилтемеге кайрылыңыз.

3-Бөлүк: жабдуунун фирмалык тактасында жайгашкан даярдоо мөөнөтү тууралуу маалымат.

Шайкештик жөнүндө декларация

BM, BMh түрүндөгү соргучтар Бажы Биримдиктин Техникалык регламенттин талаптарына ылайыктуу тастыкталган: ТР ТБ 004/2011 «Төмөн вольттук жабдуунун коопсуздугу жөнүндө»; ТР ТБ 010/2011 «Жабдуу жана машиналардын коопсуздугу жөнүндө»; ТР ТБ 020/2011 «Техникалык каражаттардын электромагниттик шайкештиги».

BM, BMh

Շահագործման ձեռնարկ

Տվյալ սարքավորման շահագործման ձեռնարկը բաղկացած է մի քանի մասերից.

Մաս 1. սույն «Շահագործման ձեռնարկ»:

Մաս 2. էլեկտրոնային մաս. այն է՝ «Անձնագիր: Մոնիտավման և

շահագործման ձեռնարկ» տեղադրված «Գրունդֆոս». Անցեք փաստաթղթի վերջում նշված հղումով.

Մաս 3. տեղեկություն արտադրման ամսաթվի վերաբերյալ՝ նշված սարքավորման պիտակի վրա:

Տեղեկություններ հավաստագրման մասին՝

BM, BMh տիպի պոմպերը սերտիֆիկացված են համաձայն Մաքսային Միության տեխնիկական կանոնակարգի պահանջների՝ TP TC 004/2011 «Ցածրավոլտ սարքավորումների վերաբերյալ», TP TC 010/2011 «Մեքենաների և սարքավորումների անվտանգության վերաբերյալ» ; TP TC 020/2011 «Տեխնիկական միջոցների էլեկտրամագնիսական համատեղելիության վերաբերյալ»:



<http://net.grundfos.com/qr/i/99133244>

10000113391	0916
-------------	------

ECM: 1193920

Argentina

Bombas GRUNDFOS de Argentina S.A.
Ruta Panamericana km. 37.500 Centro
Industrial Garin
1619 Garin Pcia. de B.A.
Phone: +54-3327 414 444
Telefax: +54-3327 45 3190

Australia

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

Austria

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

Belgium

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

Belarus

Представительство ГРУНДФОС в
Минске
220125, Минск
ул. Шафарьянская, 11, оф. 56, БЦ
«Порт»
Тел.: +375 17 397 397 3
+375 17 397 397 4
Факс: +375 17 397 397 1
E-mail: minsk@grundfos.com

Bosnia and Herzegovina

GRUNDFOS Sarajevo
Zmaj od Bosne 7-7A,
BH-71000 Sarajevo
Phone: +387 33 592 480
Telefax: +387 33 590 465
www.ba.grundfos.com
e-mail: grundfos@bih.net.ba

Brazil

BOMBAS GRUNDFOS DO BRASIL
Av. Humberto de Alencar Castelo Branco,
630
CEP 09850 - 300
São Bernardo do Campo - SP
Phone: +55-11 4393 5533
Telefax: +55-11 4343 5015

Bulgaria

Grundfos Bulgaria EOOD
Slatina District
Iztochna Tangenta street no. 100
BG - 1592 Sofia
Tel. +359 2 49 22 200
Fax. +359 2 49 22 201
email: bulgaria@grundfos.bg

Canada

GRUNDFOS Canada Inc.
2941 Brighton Road
Oakville, Ontario
L6H 6C9
Phone: +1-905 829 9533
Telefax: +1-905 829 9512

China

GRUNDFOS Pumps (Shanghai) Co. Ltd.
10F The Hub, No. 33 Suhong Road
Minhang District
Shanghai 201106
PRC
Phone: +86 21 612 252 22
Telefax: +86 21 612 253 33

COLOMBIA

GRUNDFOS Colombia S.A.S.
Km 1.5 vía Siberia-Cota Conj. Potrero
Chico,
Parque Empresarial Arcos de Cota Bod.
1A.
Cota, Cundinamarca
Phone: +57(1)-2913444
Telefax: +57(1)-8764586

Croatia

GRUNDFOS CROATIA d.o.o.
Buzinski prilaz 38, Buzin
HR-10010 Zagreb
Phone: +385 1 6595 400
Telefax: +385 1 6595 499
www.hr.grundfos.com

GRUNDFOS Sales Czechia and Slovakia s.r.o.

Čajkovského 21
779 00 Olomouc
Phone: +420-585-716 111

Denmark

GRUNDFOS DK A/S
Martin Bachs Vej 3
DK-8850 Bjerringbro
Tlf.: +45-87 50 50 50
Telefax: +45-87 50 51 51
E-mail: info_GDK@grundfos.com
www.grundfos.com/DK

Estonia

GRUNDFOS Pumps Eesti OÜ
Peterburi tee 92G
11415 Tallinn
Tel: + 372 606 1690
Fax: + 372 606 1691

Finland

OY GRUNDFOS Pumput AB
Trukkikuja 1
FI-01360 Vantaa
Phone: +358-(0) 207 889 500
Telefax: +358-(0) 207 889 500

France

Pompes GRUNDFOS Distribution S.A.
Parc d'Activités de Chesnes
57, rue de Malacombes
F-38290 St. Quentin Fallavier (Lyon)
Tél.: +33-4 74 82 15 15
Télécopie: +33-4 74 94 10 51

Germany

GRUNDFOS GMBH
Schlüterstr. 33
40699 Erkrath
Tel.: +49-(0) 211 929 69-0
Telefax: +49-(0) 211 929 69-3799
e-mail: infoservice@grundfos.de
Service in Deutschland:
e-mail: kundendienst@grundfos.de

Greece

GRUNDFOS Hellas A.E.B.E.
20th km. Athinon-Markopoulou Av.
P.O. Box 71
GR-19002 Peania
Phone: +0030-210-66 83 400
Telefax: +0030-210-66 46 273

Hong Kong

GRUNDFOS Pumps (Hong Kong) Ltd.
Unit 1, Ground floor
Siu Wai Industrial Centre
29-33 Wing Hong Street &
68 King Lam Street, Cheung Sha Wan
Kowloon
Phone: +852-27861706 / 27861741
Telefax: +852-27858664

Hungary

GRUNDFOS Hungária Kft.
Tópark u. 8
H-2045 Törökbálint,
Phone: +36-23 511 110
Telefax: +36-23 511 111

India

GRUNDFOS Pumps India Private Limited
118 Old Mahabalipuram Road
Thoraiakkam
Chennai 600 096
Phone: +91-44 2496 6800

Indonesia

PT. GRUNDFOS POMPA
Graha Intirub Lt. 2 & 3
Jln. Cililitan Besar No.454. Makasar,
Jakarta Timur
ID-Jakarta 13650
Phone: +62 21-469-51900
Telefax: +62 21-460 6910 / 460 6901

Ireland

GRUNDFOS (Ireland) Ltd.
Unit A, Merrywell Business Park
Ballymount Road Lower
Dublin 12
Phone: +353-1-4089 800
Telefax: +353-1-4089 830

Italy

GRUNDFOS Pompe Italia S.r.l.
Via Gran Sasso 4
I-20060 Truccazzano (Milano)
Tel.: +39-02-95838112
Telefax: +39-02-95309290 / 95838461

Japan

GRUNDFOS Pumps K.K.
1-2-3, Shin-Miyakoda, Kita-ku,
Hamamatsu
431-2103 Japan
Phone: +81 53 428 4760
Telefax: +81 53 428 5005

Korea

GRUNDFOS Pumps Korea Ltd.
6th Floor, Aju Building 679-5
Yeoksam-dong, Kangnam-ku, 135-916
Seoul, Korea
Phone: +82-2-5317 600
Telefax: +82-2-5633 725

Latvia

SIA GRUNDFOS Pumps Latvia
Deglava biznesa centrs
Augusta Deglava iela 60, LV-1035, Rīga,
Tālr.: + 371 714 9640, 7 149 641
Fakss: + 371 914 9646

Lithuania

GRUNDFOS Pumps UAB
Smolensko g. 6
LT-03201 Vilnius
Tel: + 370 52 395 430
Fax: + 370 52 395 431

Malaysia

GRUNDFOS Pumps Sdn. Bhd.
7 Jalan Peguam U1/25
Glenmarie Industrial Park
40150 Shah Alam
Selangor
Phone: +60-3-5569 2922
Telefax: +60-3-5569 2866

Mexico

Bombas GRUNDFOS de México S.A. de
C.V.
Boulevard TLC No. 15
Parque Industrial Stiva Aeropuerto
Apodaca, N.L. 66600
Phone: +52-81-8144 4000
Telefax: +52-81-8144 4010

Netherlands

GRUNDFOS Netherlands
Veluwezoom 35
1326 AE Almere
Postbus 22015
1302 CA ALMERE
Tel.: +31-88-478 6336
Telefax: +31-88-478 6332
E-mail: info_gnl@grundfos.com

New Zealand

GRUNDFOS Pumps NZ Ltd.
17 Beatrice Tinsley Crescent
North Harbour Industrial Estate
Albany, Auckland
Phone: +64-9-415 3240
Telefax: +64-9-415 3250

Norway

GRUNDFOS Pumper A/S
Strømsveien 344
Postboks 235, Leirdal
N-1011 Oslo
Tlf.: +47-22 90 47 00
Telefax: +47-22 32 21 50

Poland

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

Portugal

Bombas GRUNDFOS Portugal, S.A.
Rua Calvet de Magalhães, 241
Apartado 1079
P-2770-153 Paço de Arcos
Tel.: +351-21-440 76 00
Telefax: +351-21-440 76 90

Romania

Grundfos Pompe România SRL
S-PARK BUSINESS CENTER, Clădirea
A2,
etaj 2, Str. Tipografilor, Nr. 11-15, Sector 1,
Cod 013714, Bucuresti, Romania,
Tel: 004 021 2004 100
E-mail: romania@grundfos.ro
www.grundfos.ro

Russia

ООО Грундфос Россия
ул. Школьная, 39-41
Москва, RU-109544, Russia
Тел.: (+7) 495 564-88-00 (495) 737-30-00
Факс (+7) 495 564 8811
E-mail grundfos.moscow@grundfos.com

Serbia

Grundfos Srbija d.o.o.
Omladinskih brigada 90b
11070 Novi Beograd
Phone: +381 11 2258 740
Telefax: +381 11 2281 769
www.rs.grundfos.com

Singapore

GRUNDFOS (Singapore) Pte. Ltd.
25 Jalan Tukang
Singapore 619264
Phone: +65-6681 9688
Telefax: +65-6681 9689

Slovakia

GRUNDFOS s.r.o.
Prievozská 4D
821 09 BRATISLAVA
Phona: +421 2 5020 1426
sk.grundfos.com

Slovenia

GRUNDFOS LJUBLJANA, d.o.o.
Leskoškova 9e, 1122 Ljubljana
Phone: +386 (0) 1 568 06 10
Telefax: +386 (0) 1 568 06 19
E-mail: tehniko-si@grundfos.com

South Africa

Grundfos (PTY) Ltd.
16 Lascelles Drive, Meadowbrook Estate
1609 Germiston, Johannesburg
Tel.: (+27) 10 248 6000
Fax: (+27) 10 248 6002
E-mail: lgradidge@grundfos.com

Spain

Bombas GRUNDFOS España S.A.
Camino de la Fuentecilla, s/n
E-28110 Algete (Madrid)
Tel.: +34-91-848 8800
Telefax: +34-91-628 0465

Sweden

GRUNDFOS AB
Box 333 (Lunnagårdsgatan 6)
431 24 Mölndal
Tel.: +46 31 332 23 000
Telefax: +46 31 331 94 60

Switzerland

GRUNDFOS Pumpen AG
Bruggacherstrasse 10
CH-8117 Fällanden/ZH
Tel.: +41-44-806 8111
Telefax: +41-44-806 8115

Taiwan

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

Thailand

GRUNDFOS (Thailand) Ltd.
92 Chaloom Phrakiat Rama 9 Road,
Dokmai, Pravej, Bangkok 10250
Phone: +66-2-725 8999
Telefax: +66-2-725 8998

Turkey

GRUNDFOS POMPA San. ve Tic. Ltd. Sti.
Gebze Organize Sanayi Bölgesi
İhsan dede Caddesi,
2. yol 200. Sokak No. 204
41490 Gebze/ Kocaeli
Phone: +90 - 262-679 7979
Telefax: +90 - 262-679 7905
E-mail: satis@grundfos.com

Ukraine

Бізнес Центр Європа
Столицне шосе, 103
м. Київ, 03131, Україна
Телефон: (+38 044) 237 04 00
Факс: (+38 044) 237 04 01
E-mail: ukraine@grundfos.com

United Arab Emirates

GRUNDFOS Gulf Distribution
P.O. Box 16768
Jebel Ali Free Zone
Dubai
Phone: +971 4 8815 166
Telefax: +971 4 8815 136

United Kingdom

GRUNDFOS Pumps Ltd.
Grovebury Road
Leighton Buzzard/Beds. LU7 4TL
Phone: +44-1525-850000
Telefax: +44-1525-850011

U.S.A.

GRUNDFOS Pumps Corporation
9300 Loiret Blvd.
Lenexa, Kansas 66219
Phone: +1-913-227-3400
Telefax: +1-913-227-3500

Uzbekistan

Grundfos Tashkent, Uzbekistan The
Representative Office of Grundfos
Kazakhstan in Uzbekistan
38a, Oybek street, Tashkent
Телефон: (+998) 71 150 3290 / 71 150
3291
Факс: (+998) 71 150 3292

Addresses Revised 09.09.2020

150095 01.2021
ECM: 1300430

Trademarks displayed in this material, including but not limited to Grundfos, the Grundfos logo and "be think innovate" are registered trademarks owned by The Grundfos Group. All rights reserved. © 2021 Grundfos Holding A/S. all rights reserved.