

SE and SL pumps, range 56

25-63 kW, 50/60 Hz

Safety instructions and other important information



QR92777903

Installation and operating instructions

(all available languages)

<http://net.grundfos.com/qr/i/92777903>

SE and SL pumps, range 56

English (GB)

Safety instructions.	4
Declaration of conformity	28
Declaration of conformity	32
Declaration of conformity	33
Declaration of conformity	35

English (GB) Safety instructions

■ Original safety instructions

These safety instructions give a quick overview of the safety precautions to be taken in connection with any work on this product. Observe these safety instructions during handling, installation, operation, maintenance, service and repair of this product. These safety instructions are a supplementary document, and all safety instructions will appear again in the relevant sections of the installation and operating instructions. Keep these safety instructions at the installation site for future reference.

General information



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

Hazard statements

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



DANGER

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



WARNING

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



CAUTION

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

The hazard statements are structured in the following way:



SIGNAL WORD

Description of the hazard

Consequence of ignoring the warning

- Action to avoid the hazard.

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.



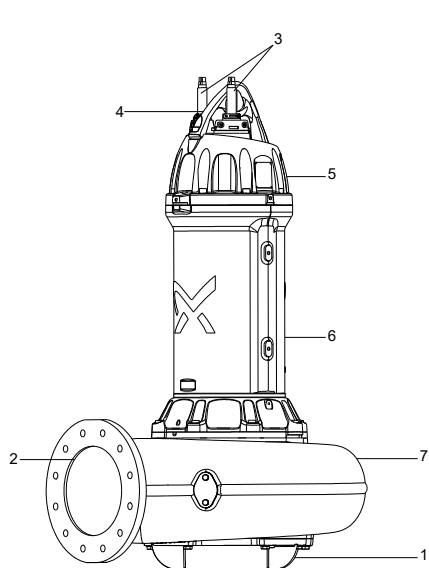
Tips and advice that make the work easier.

Target group

These installation and operating instructions are intended for professional installers.

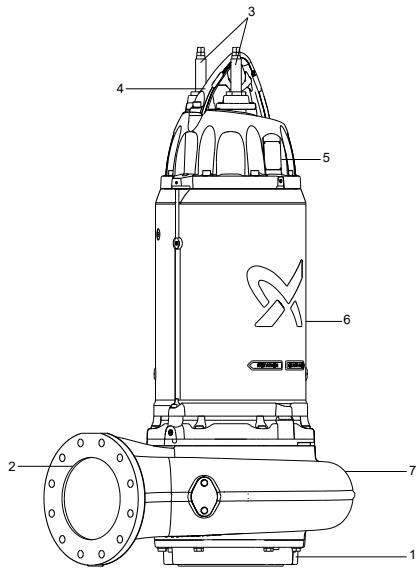
Product description

The 25-63 kW SE and SL pumps are a range of Open S-tube® impeller pumps specifically designed for pumping sewage and wastewater in a wide range of municipal and industrial applications.



TM0081791

SL 25-63 kW pump



TM0083395

SE 25-63 kW pump

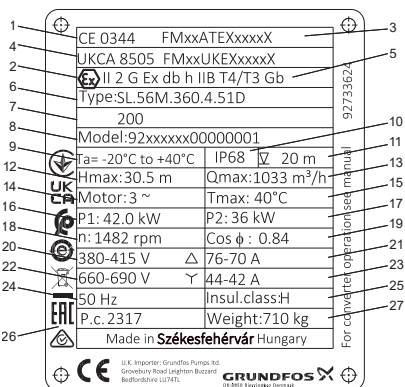
Pos.	Description
1	Inlet
2	Outlet
3	Power and control cable
4	Lifting bracket
5	Terminal box
6	Submersible motor
7	Pump

Pumped liquids

The pumps are designed for:

- raw sewage with short and long fibres and particles in municipal and industrial wastewater systems
- surface water
- industrial wastewater with fibrous material
- domestic wastewater with toilet waste
- unscreened sewage in municipal pumping stations or inlet pumping stations in wastewater treatment plants
- raw water.

Nameplate



TM0082259

Pos.	Description
1	EU Notified Body approving the Ex manufacturer
2	Marking of explosion protection
3	EU Explosion protection certificate No

Pos.	Description
4	UK Approved Body approving the Ex manufacturer and UK Explosion protection certificate No
5	Ex description
6	Pump type designation
7	Pump type designation (line 2)
8	Model number
9	Ambient temperature
10	Enclosure class
11	Maximum installation depth
12	Maximum head
13	Maximum flow rate
14	Number of phases
15	Maximum liquid temperature
16	Rated power input P1
17	Rated power output P2
18	Rated speed
19	Cos ϕ , 1/1-load
20	Rated voltage, delta connection
21	Rated current, delta connection
22	Rated voltage, star connection
23	Rated current, star connection
24	Frequency
25	Insulation class
26	Production code (YYWW)
27	Weight

Type key

Example: **SL.56M.210.4.51D.200**

Code	Explanation	Designation
SL	Sewage pump without cooling jacket	Pump type
	Sewage pump with cooling jacket	
56	Frame 56	Frame size
M	Medium pressure	Pressure range
L	Low pressure	
H	High pressure	

Code	Explanation	Designation
210	Power P2 × 10 [21 kW]	Power [kW]
4	4-pole motor	Number of poles
6	6-pole motor	
50D	3 × 380-415D, (DOL, EMC)	Voltage code for 50 Hz
	50 Hz	
51D	3 × 380-415D, 660-690Y (Standard)	Voltage code for 50 Hz
	50 Hz	
60G	3 × 380-480D (DOL, EMC)	Voltage code for 60 Hz
	60 Hz	
61G	3 × 380-480D, 660-690Y (Standard)	Voltage code for 60 Hz
	60 Hz	
100		
150	Pump outlet nominal diameter (DN200 = 200)	Pump outlet [mm]
200		
250		
300		
- (blank)	Standard sensor version	
1	Sensor version V1	Sensor versions
2	Sensor version V2	
Z	Custom-built products	Customisation

Approvals

The explosion-proof versions have been approved by FM Approvals according to the ATEX directive / UKEX regulation and IEC standards and have the following Certificates:



- FMxxATEXxxxxX
- IECEx FMG xx.xxxxX
- FMxxUKEXxxxxX.

The letter X in the certificate number indicates that the equipment is subject to specific condition of use. The conditions are described in the certificate and the installation and operating instructions.

Explanation of Ex approval


The SE/SL 25-63 kW pumps have the following explosion protection classification:

ATEX / UKEX

Direct-drive pump:	CE 0344 / UKCA 8505  II 2 G Ex db h IIB T4 Gb IP68
Pump driven by frequency converter:	CE 0344 / UKCA 8505  II 2 G Ex db h IIB T3 Gb IP68

IECEX

Direct-drive pump:	Ex db h IIB T4 Gb Ta = -20 to +40 °C
Pump driven by frequency converter:	Ex db h IIB T3 Gb Ta = -20 to +40 °C

Directive or standard	Code	Description
ATEX / UKEX	CE 0344 UKCA 8505	= CE marking of conformity according to the ATEX directive, 2014/34/EU, Annex X. UKCA marking of conformity according to the UKEX regulation, 2016. 0344 / 8505 is the number of the Notified Body / Approved Body which has certified the quality system for ATEX / UKEX.
		= The equipment conforms to the harmonised EU and UK standard.
	II	= Non-mining equipment group, according to the ATEX directive / UKEX regulation, defining the requirements applicable to the equipment in this group.
	2	= High protection equipment group, according to the ATEX directive / UKEX regulation, defining the requirements applicable to the equipment in this category.
	G	= Explosive atmospheres caused by gases, vapours or mists.
	Ex	= Marking of explosion protection.
	db	= Flame proof enclosure according to EN/IEC 60079-1.
Harmonised European EN and IECEx standards	h	= Non-electrical equipment for explosive atmosphere, according to EN ISO 80079-36 and EN ISO 80079-37.
	IIB	= Classification of gases, see EN/IEC 60079-0, Annex A. Gas group B includes gas group A.
	T4/T3 (When operated by a frequency converter.)	= Maximum surface temperature is 135 °C / 200 °C according to IEC 60079-0.
	Gb	= Equipment for explosive gas with "high" level of protection.
	IP68	= Enclosure class according to EN/IEC 60529.

Ex certification and classification

Explosion-proof pumps are approved by FM Approvals in conformity with the essential health and safety requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Council Directive 2014/34/EU (ATEX) and in The

Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016 (UKEX).

Potentially explosive environments

Use explosion-proof pumps for applications in potentially explosive environments.



The pump must not be used to pump explosive, flammable or combustible liquids.



The classification of the installation site must comply with the local regulations.




Specific conditions for safe use of explosion-proof pumps:

1. Make sure the moisture- and thermal switches are connected in two separate circuits and have separate alarm outputs (motor stop) in case of high humidity or high temperature in the motor.
2. Bolts used for replacement must be class A4-80 or A2-80 according to EN/ISO 3506-1.
3. Contact the manufacturer if dimensional information on the flameproof joints is necessary.
4. During operation, the cooling jacket, if fitted, must be filled with cooling liquid.
5. The level of the pumped liquid must be controlled by level switches connected to the motor control circuit. Install an additional level switch to ensure that the pump is stopped in case the stop level switch is not working.
6. Dry running is not allowed.
7. Make sure the cable is mechanically protected, attached to the switchboard and the cable bonding cannot slip out.
8. The sewage pumps have an ambient temperature range of -20 to +40 °C and a maximum operating temperature of +40 °C.
9. Avoid exposing the ethylene-propylene rubber insulated cables to direct sunlight.
10. Dry-installed pumps often have a higher temperature in the cable entries than submerged pumps. This may reduce the lifetime of the Ex-protection. According to IEC/EN 60079-14, it is a user responsibility to regularly inspect the condition of the permanently attached cables and cable entries for any visual damage, cracks or embrittlement caused by rubber aging.
11. The thermal protector in the stator windings must have a rated switch temperature of 150 °C and it ensures the disconnection of the power supply. Resetting must be carried out manually.
12. To avoid electrostatic discharge, clean the cables and the painted parts of the pump with a wet fabric.
13. When the pump is operated by a frequency converter, the installation must be rated up to T3 temperature class. When the pump is operated

without a frequency converter, the installation must be rated up to T4 temperature class.


14. This EU and UK type examination certificate is only for II 2G Ex db IIB T4/T3, Gb, Ta = -20 to +40 °C, IP68. It does not cover concept h. Concept h is manufacturer self-declaration. The manufacturer has sent to FM Approvals a copy of his assessment for concept h. This has not been reviewed and is not endorsed by FM Approvals. It is held on file for completeness only.

Inspecting the product

-  If the pump is not in operation or is being stored for more than a month, turn the impeller once a month.

WARNING Crushing hazard

- Death or serious personal injury
- Do not turn the impeller by hand. Always use an appropriate tool.

-  On pumps fitted with a guide vane, be careful not to damage the guide vane when turning the impeller.

Transporting the product

WARNING Crushing hazard

- Death or serious personal injury
- Lifting and moving must be done by a trained person.

CAUTION Sharp element

- Minor or moderate personal injury
- Packaging parts may be pointy or sharp. Wear hand protection.

CAUTION Crushing hazard

- Minor or moderate personal injury
- Make sure the pump cannot roll or fall over.


WARNING Crushing hazard

- Death or serious personal injury
- Always lift the pump by its lifting bracket or use a forklift.

DANGER Electric shock

Death or serious personal injury

- Never lift the pump by the power cable, hose, or pipe.

 Leave the cable-end protectors and control cables on the power supply until making the electrical connection. Whether insulated or not, the free cable end must never be exposed to moisture.

Mechanical installation

DANGER Electric shock

Death or serious personal injury

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

DANGER Crushing hazard

Death or serious personal injury

- During installation, always support the pump by lifting chains or place it in horizontal position to secure stability.

CAUTION Crushing hazard


Minor or moderate personal injury


- Do not put your hands or any tool into the pump inlet or outlet after the pump has been connected to the power supply, unless the main switch has been locked in position 0.
- Make sure that the power supply cannot be switched on unintentionally.

WARNING Biological hazard

Death or serious personal injury

- Media spraying from the pump can cause injury. Wear eye protection.

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

 Make sure that the pipes are installed without the use of undue force. No loads from the weight of the pipes must be carried by the pump. Use loose flanges to ease the installation and to avoid pipe tension at the flanges.

Vertical installation on auto-coupling



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

Minimum liquid level

Do not let the pump run dry.

Install an additional level switch to ensure that the pump is stopped in case the stop level switch is not working.



The level of the pumped liquid must be controlled by level switches connected to the motor control circuit.

Explosion-proof, submersible SL pumps without cooling jacket must always be completely submerged in the pumped liquid to the top of the motor.



The pump housing of explosion-proof, submersible SE pumps with cooling jacket must always be completely covered by the pumped liquid.



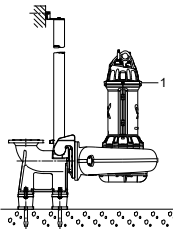
For a short period, the pump may be used to pump down the liquid level to remove the float layer. For explosion-proof pumps, do not let it go below the stop levels shown in fig.



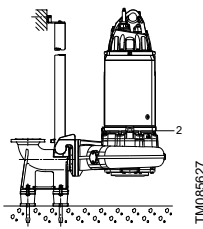
The pump must not run dry.

To ensure adequate motor cooling, the following minimum requirements must be met:

- **Vertical installation on auto-coupling:**
 - SL pump: the pump must be completely submerged in the pumped liquid to the top of the motor. See **level 1** on the figure below.
 - SE pump: the pump must be submerged in the pumped liquid until the bottom of the motor. See **level 2** on the figure below.



Liquid level, SL



Liquid levels, SE

Electrical connection



EMC shielding of power and control cables must be connected and fixed by the operator.



Connect pumps installed in hazardous locations to a control box with a motor protection relay with an IEC trip class 10.

1. Do not install pump controllers, Ex barriers or the free end of the power cable in potentially explosive environments.
2. The classification of the installation site must comply with the local rules.
3. On explosion-proof pumps, make sure that an external ground conductor is connected to the external ground terminal on the pump by a secure cable clamp. Clean the surface of the external ground connection and mount the cable clamp.
4. The ground conductor must be minimum AWG 12 type RHH, RHW, RHW-2 or similar, rated for 600 V and minimum 90 °C, yellow and green.
5. Make sure that the ground conductor is protected from corrosion.
6. Make sure that all protective equipment has been connected correctly.
7. Float switches used in potentially explosive environments must be approved for this application. They must be connected to the Grundfos Dedicated Controls, DC, DCD or the SLC, DLC controllers, by an intrinsically safe barrier to ensure a safe circuit.



DANGER

Electric shock

Death or serious personal injury

- Unauthorised people must not have any access to this product.



DANGER

Electric shock

Death or serious personal injury

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



**WARNING****Electric shock**

Death or serious personal injury

- Before installation and startup, check the power cable for damage.

DANGER**Electric shock**

Death or serious personal injury



- The pump must be grounded. Before connecting the pump to the voltage supply, make sure the connection to ground complies with the local regulations.

Connect the pump to an external main switch ensuring all-pole disconnection with a contact separation according to EN 60204-1, 5.3.2. It must be possible to lock the main switch in position 0.



The supply voltage and frequency are marked on the nameplate. Make sure that the motor is suitable for the power supply at the installation site.

The electrical connection must comply with the local regulations.



Connect the pumps to a controller with a motor protection relay with IEC trip class 10 or 15 or NEMA-equivalent.



The power supply for the motor protection circuit must be low voltage, class 2.



If the power cable is damaged, it must be replaced by the manufacturer or his service agent.



Set the motor-protective circuit breaker to the rated current of the pump, +10 % service factor for 50 Hz motors, +15 % service factor for 60 Hz motors. The rated current is stated on the nameplate.

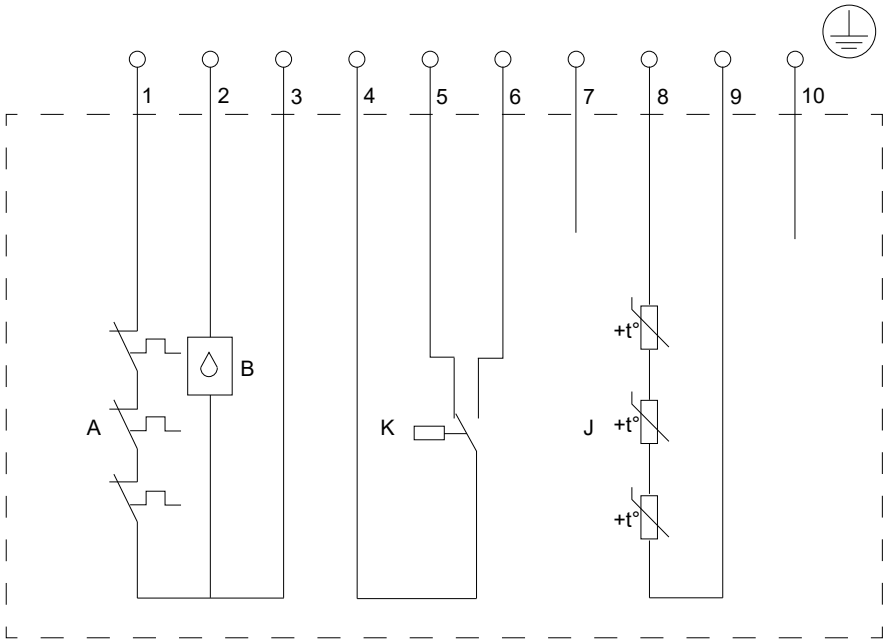


Maintenance and service work on explosion-proof pumps must be carried out by Grundfos or an authorised service workshop.



Before installation and the first startup of the pump, check the condition of the cable to avoid short circuits.

Sensor wiring diagrams



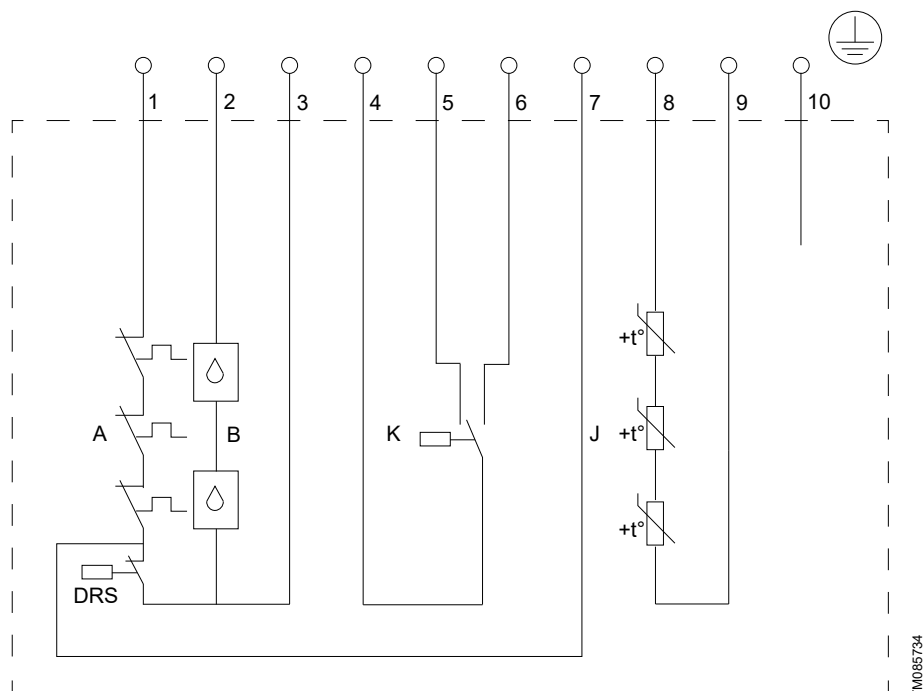
TM082723

Sensor connection, standard version

Pos.	Description
A	3 × PTO
B	Moisture switch (motor top)
K	Leakage switch
J	3 × PTC

Cable screening must be connected to the ground. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 4, 5 and 6) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "4" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "5" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "6" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



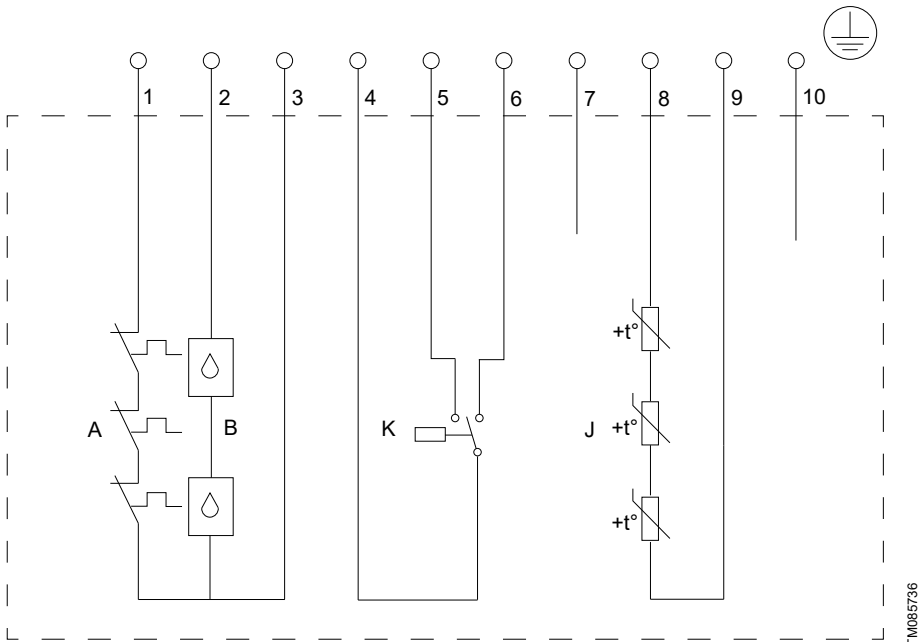
TM085734

Sensor connection, standard Ex version (SE pumps)

Pos.	Description
A	3 × PTO
B	2 × Moisture switch (motor top)
K	Leakage switch
J	3 × PTC
DRS	Dry running switch

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 4, 5 and 6) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "4" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "5" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "6" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



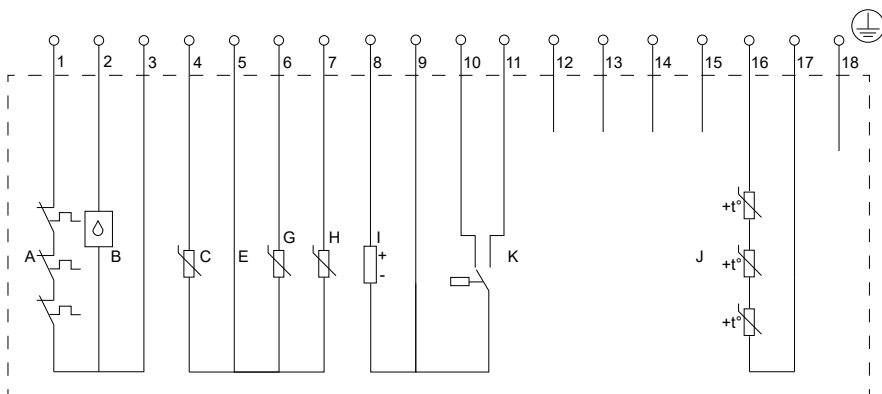
TM085736

Sensor connection, standard Ex version without Dry Running Switch (SL pumps)

Pos.	Description
A	3 × PTO
B	2 × Moisture switch (motor top)
K	Leakage switch
J	3 × PTC

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 4, 5 and 6) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "4" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "5" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "6" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



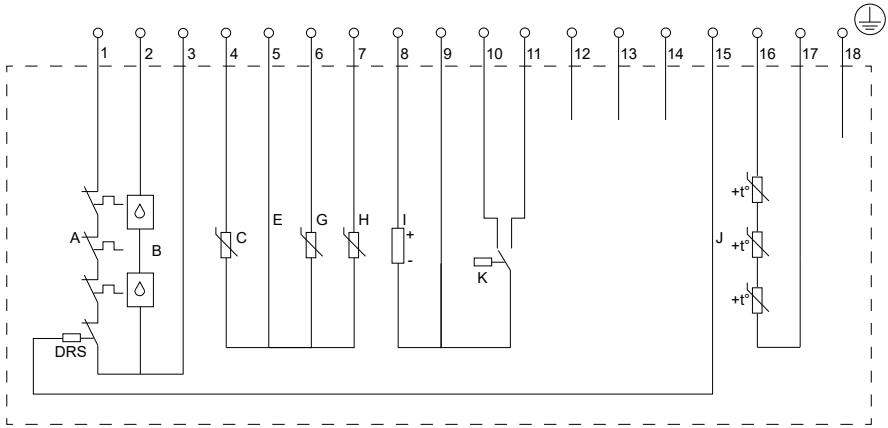
TM084630

Sensor connection, version V1

Pos.	Description
A	3 × PTO
B	Moisture switch (motor top)
C	Pt100 (lower bearing)
E	Common earthing for sensors
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 × PTC

Cable screening must be connected to the ground. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 9, 10 and 11) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "9" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "10" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "11" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



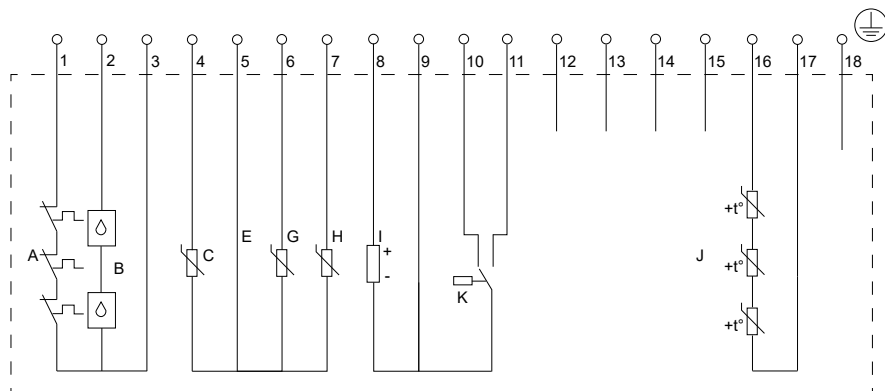
TM085739

Sensor connection, version V1 Ex (SE pumps)

Pos.	Description
A	3 × PTO
B	2 × Moisture switch (motor top)
C	Pt100 (lower bearing)
E	Common earthing for sensors
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 × PTC
DRS	Dry running switch

Cable screening must be connected to the ground. Sensor wire 15 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 9, 10 and 11) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "9" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "10" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "11" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



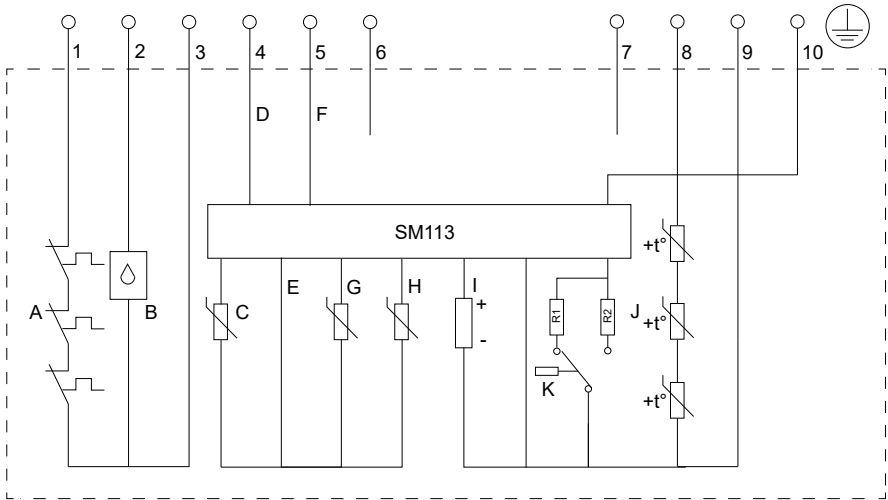
TM085737

Sensor connection, version V1 Ex without Dry Running Switch (SL pumps)

Pos.	Description
A	3 × PTO
B	2 × Moisture switch (motor top)
C	Pt100 (lower bearing)
E	Common earthing for sensors
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 × PTC

Cable screening must be connected to the ground. Sensor wire 15 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 9, 10 and 11) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "9" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "10" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "11" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.

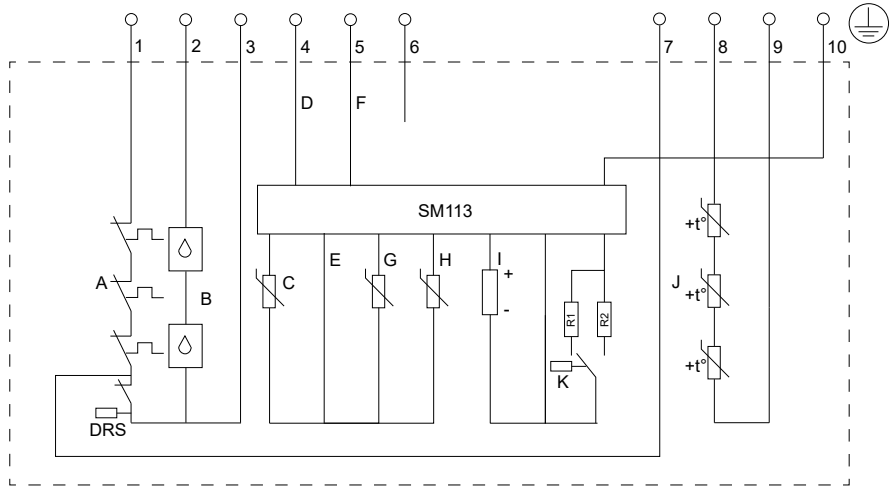


TM084631

Sensor connection, version V2

Pos.	Description
A	3 × PTO
B	Moisture switch (motor top)
C	Pt100 (lower bearing)
D	Supply input for sensor board from IO113
E	Common earthing for sensors
F	Communication signal for IO113
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 × PTC

Cable screening must be connected to the ground.

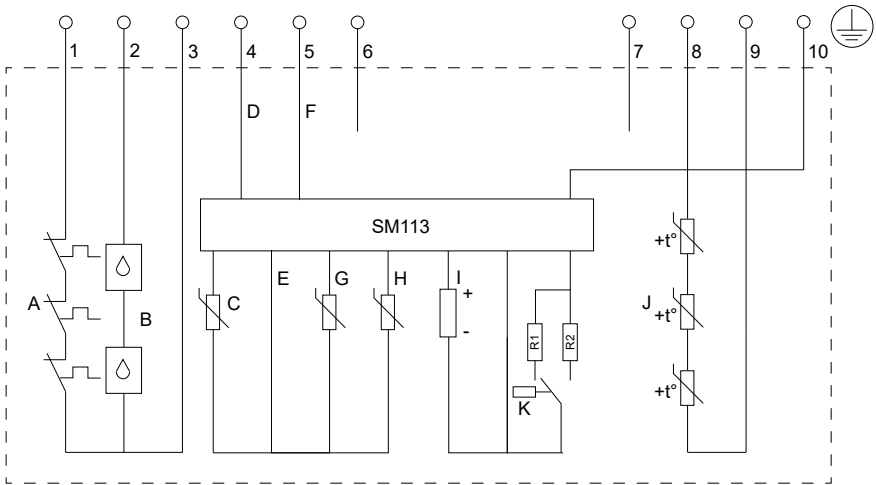


TM085738

Sensor connection, version V2 Ex (SE pumps)

Pos.	Description
A	3 × PTO
B	2 × Moisture switch (motor top)
C	Pt100 (lower bearing)
D	Supply input for sensor board from IO113
E	Common earthing for sensors
F	Communication signal for IO113
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 × PTC
DRS	Dry running switch

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated.



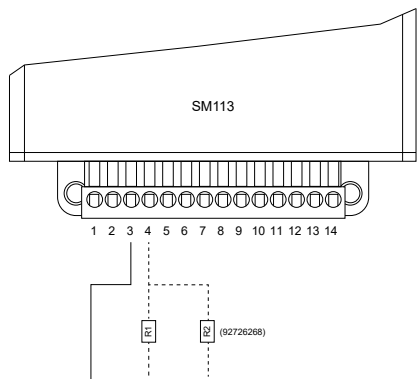
TM085740

Sensor connection, version V2 Ex without Dry Running Switch (SL pumps)

Pos.	Description
A	3 × PTO
B	2 × Moisture switch (motor top)
C	Pt100 (lower bearing)
D	Supply input for sensor board from IO113
E	Common earthing for sensors
F	Communication signal for IO113
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 × PTC

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated.

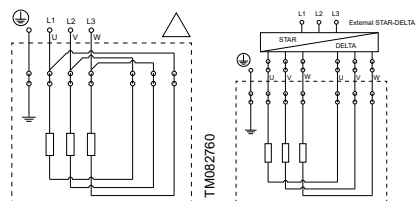
SM113 connection diagram



TM085735

Standard version	Sensor wire 4 - 5 - 6
Sensor version V1	Sensor wire 9 - 10 - 11
Sensor version V2	Built into the motor top
92726268	Resistor kit

Motor wiring diagrams



TM082760

TM082761

Delta connection

Star-delta connection

Frequency converter operation

CAUTION Electric shock



- Minor or moderate personal injury
- Be aware of possible residual voltage being present.



If the motor is operated by a frequency converter, the temperature class of the explosion-proof pumps must be T3.

In principle, all three-phase motors can be connected to a frequency converter. However, frequency converter operation often exposes the motor insulation system to a heavier load and may cause the motor to be more noisy due to eddy currents caused by voltage peaks.

Large motors driven with a frequency converter may be loaded by bearing currents.

For frequency converter operation, observe the following:

- The thermal protection of the motor must be connected.
- Peak voltage and dU/dt must be in accordance with the table below. The values stated are maximum values supplied to the motor terminals. The cable influence is not taken into account. See the frequency converter data sheet regarding the actual values and the cable influence on the peak voltage and dU/dt.
- The minimum switching frequency is 2 kHz. The switching frequency can be variable.
- If the pump is an Ex-approved pump, check if the Ex certificate of the specific pump allows the use of a frequency converter.
- Set the frequency converter U/f ratio according to the motor data.
- Before installing a frequency converter, calculate the lowest frequency allowed in the installation to avoid zero flow.
- Do not reduce the motor speed to less than 50 %.
- Keep the flow rate above 1 m/sec.
- Let the pump run at rated speed at least once a day to prevent sedimentation in the pipe network.
- Do not exceed the frequency indicated on the nameplate as this may cause motor overload.
- Keep the power cable as short as possible. The peak voltage increases with the length of the power cable.
- Use input and output filters on the frequency converter.
- Use a screened power cable if there is a risk that electrical noise may disturb other electrical equipment.
- Set the frequency converter for constant-torque operation. Use pulse width modulation.

When operating the pump with a frequency converter, consider the following:

- The locked-rotor torque can be lower depending on the type of the frequency converter.
- The noise level may increase. See the installation and operating instructions for the selected frequency converter.

Maximum repetitive peak voltage [V]	Maximum dU/dt U _N 400 V [V/μ sec.]
2.200	9.000



Frequency converter use may reduce the lifespan of the bearings and the shaft seal, depending on the operating mode and other circumstances.

For more information about the frequency converter operation, see the data sheet and the installation and operating instructions for the selected frequency converter.

General conditions for frequency converter operation

All motors used with frequency converter must be protected against voltage peaks and dU/dT according to IEC60034-25 Figure 14 - Curve A.

Grundfos recommends using insulated bearing systems in installations where common mode currents can be a problem. It is generally recommended to use insulated bearings from the following performance ranges:

- 45kW / 2-pole
- 30kW / 4-pole
- 22kW / 6-pole.

Use screened cables for frequency converter operation.

- Screened **power cables** to comply with EMC regulations.
- Screened **sensor cables** to protect the signals against electromagnetic interference.

Power cable data



The minimum size of the ground conductor must be equal to or bigger than the phase conductor.



The top cover of the explosion-proof pumps is provided with an external ground terminal to ensure the connection to the ground. The electrical installation must include an external connection from this terminal to the ground. The ground conductor must comply with all electrical safety regulations in force.



Before installation and the first startup of the pump, check the condition of the cable to avoid short circuits.

Sensors

Switch and sensor specification

Ex sensor versions come with 2 moisture switches and 1 optional dry running switch.

Mains-dependent conditions for frequency converter operation

200-240 V

No output filters are required for frequency converter operated pumps with up to 240 V mains voltages.

380-500 V

For frequency converter operated pumps with less than 25 m power cable length and mains supply up to 460 V, no additional motor protection is required against voltage peaks.

If the power cable length is longer than 25 m, or the mains supply is higher than 460 V, sine-wave filters are required.

500 V and above

Always use sine-wave filters for pumps marked for 500 V or higher voltages.



Pumps with reinforced motor insulation can be supplied as an option for motors above 22 kW. These motor stators will be according to IEC60034-25, this can eliminate the need for sine-wave filters. Protection against common mode currents is still needed according to the specification mentioned above.

Sensor version	Standard and Standard Ex	V1 and V1 Ex	V2 and V2 Ex
Thermal switches / PTC	•	•	•
Moisture switch	•	•	•

Sensor version	Standard and Standard Ex	V1 and V1 Ex	V2 and V2 Ex
Float switch in leakage chamber	•	•	•
Pt100 in motor winding		•	•
Pt100 in upper bearing		•	•
Pt100 in lower bearing		•	•
PVS3 vibration sensor		•	•
SM113 (integrated in the motor top)			•
IO113 (not integrated in the motor top)			•

Voltage tolerances

Component	Voltage	Tolerance
Motor	See the pump nameplate	± 10 %
Thermal switches	Maximum 24 V DC	± 10 %
Thermistors	2.5 - 7.5 V	-
Moisture switches	12-24 V DC	-
Other sensors (optional)	Maximum 14 V DC	± 1 V
SM 113 (optional)	Maximum 14 V DC	± 1 V

Thermal switches



The motor-protective circuit breaker of the pump controller must include a circuit which automatically disconnects the power supply in case the protective circuit is opened.



In case the thermal switches or the moisture switches are not working, install an automatic circuit breaker.

Pt100 temperature sensor



The bearing temperature monitoring system is only available as an option (based on sensor version).



In Ex-approved pumps, the maximum acceptable alarm temperature in the bearing sensors is 100 °C for the lower bearing (shaft end) and 120 °C for the upper bearing.



The thermal protection of explosion-proof pumps must not restart the pump automatically. This ensures protection against overtemperature in potentially explosive environments. In pumps with sensor, this can be done by removing the short circuit between terminals R1 and R2 in the IO 113.

See electrical data in the IO 113 installation and operating instructions.



Do not install the separate motor-protective circuit breaker or control box installed in potentially explosive environments.

Pump vibration sensor (PVS 3)



Pumps are fitted with S-tube® impellers. The S-tube® impellers are wet-balanced to reduce vibrations during operation. If these pumps are started with the pump housing containing air, the vibration level can be higher than in normal operation.

Startup



Pumps in dry installation must be vented.



Before the first startup and after a long standstill period, make sure that the pump is filled with the pumped liquid.



Make sure that the pump is filled with the pumped liquid. Dry-running is not allowed.



In case of abnormal noise or vibrations, stop the pump immediately. Do not restart the pump until the cause of the fault is identified and eliminated.



Make sure the pump is connected to an overcurrent protective device.



No automatic disconnection device is applied in the product.



DANGER
Electric shock

Death or serious personal injury

- Make sure the pump is grounded.



WARNING
Electric shock

Death or serious personal injury

- Make sure the connections are correct.



CAUTION
Hearing impairment

Minor or moderate personal injury

- Use hearing protection when working nearby an environment with a sound pressure level above 70 dB(A).



In case of abnormal noise or vibrations, stop the pump immediately. Do not restart the pump until the cause of the fault is identified and eliminated.



The pump may only be started for a short period without being submerged for checking the direction of rotation. The correct direction is highlighted on the pump.

Storage



WARNING
Crushing hazard

Death or serious personal injury

- Do not turn the impeller by hand. Always use an appropriate tool.



On pumps fitted with guide vane, be careful not to damage the guide vane when turning the impeller.

Maintenance and service



The maintenance and service work on explosion-proof pumps must be carried out by Grundfos or an authorised service workshop.



Do not open the pump if the ambient atmosphere is explosive or dusty.



DANGER
Electric shock

Death or serious personal injury

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



CAUTION
Crushing hazard

Minor or moderate personal injury

- Make sure the pump cannot roll or fall over.



DANGER
Electric shock

Death or serious personal injury

- Make sure the pump is grounded.



CAUTION
Sharp element

Minor or moderate personal injury

- Be careful of sharp edges. Wear protective gloves.



Maintenance and service must be carried out by qualified persons.



Change the motor liquid after 12.000 operating hours or 3 years, whichever comes first.



Disposal of the motor liquid must comply with local regulations.



Replace the ball bearings at least every 25.000 operating hours.

Dry-running switch check

Test the dry-running switch during pump inspections. During the test, the dry-running switch must stay in place. If the sensor does not work correctly, it must be replaced. To test the sensor, measure the resistance between the wire ends and compare the values to the table below.

Value	Sensor version	Measurement points	Measurement evaluation
closed circuit (0.5 - 2 Ω depending on cable length)	Standard Ex version	Sensor wire "3" and "7"	The switch is at the upper position because of the cooling liquid. Correct function.
	Sensor V1 Ex version	Sensor wire "3" and "15"	
	Sensor V2 Ex version	Sensor wire "3" and "7"	
open circuit (no resistance can be measured)	Standard Ex version	Sensor wire "3" and "7"	Incorrect function. Change the switch.
	Sensor V1 Ex version	Sensor wire "3" and "15"	
	Sensor V2 Ex version	Sensor wire "3" and "7"	

Drain leakage chamber on SL pumps



Drain the leakage chamber after 12.000 operating hours or three years, whichever comes first.



Normal leakage rate for the shaft seal is 2.000 ml / 12.000 operating hours. If more than 5.000 ml fluid can be drained from the leakage chamber, the shaft seal must be replaced.

Motor liquid check and change



Clean the outside of the pump regularly to retain the heat conductivity.



Change the motor liquid once a year or after 12.000 operating hours to prevent oxidation.



Lack of motor liquid may cause overheating and damage to the mechanical seals.



Use SML3 coolant for motor cooling.



Drain the leakage chamber of the pump after 12.000 operating hours.



Normal leakage rate for the shaft seal is 2.000 ml / 12.000 operating hours. If more than 5.000 ml fluid can be drained from the leakage chamber, the shaft seal must be replaced.

WARNING Pressurised system

Death or serious personal injury



- The seal chamber may be under pressure. Loosen the screws carefully and do not remove them until the pressure is completely relieved.



There must be minimum 10 % air in the seal housing due to thermal expansion of the motor liquid during operation.

Impeller clearance inspection

CAUTION

Hot surface

Minor or moderate personal injury



- Check the impeller clearance every time service is carried out to prevent hot surfaces in the hydraulic parts.

DANGER

Electric shock

Death or serious personal injury



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

Impeller clearance adjustment parts



Tighten the set screws carefully to avoid damage to the bearings.

Impeller clearance adjustment - in case of major maintenance when the pump is removed from application



Tighten the set screws carefully to avoid bearing damage.

Impeller clearance adjustment - in case of minor maintenance when the pump remains in application



Tighten the set screws carefully to avoid bearing damage.

Contaminated pumps



CAUTION Biological hazard

Minor or moderate personal injury

- Flush the pump thoroughly with clean water and rinse the pump parts after dismantling.

Troubleshooting



Observe all regulations applying to pumps installed in potentially explosive environments.

Make sure that no work is carried out in potentially explosive atmospheres.

DANGER Electric shock

Death or serious personal injury

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



DANGER Electric shock

Death or serious personal injury

- The pump must be grounded.



Before diagnosing any fault, make sure that all rotating parts have stopped moving.

Technical data

pH value

Pumps in permanent installations can cope with the following pH values:

Material variant	Installation	pH value
Standard ¹⁾	All types	6-14 ¹⁾

¹⁾ Cast iron impeller, pump housing and motor top.

Density and viscosity of the pumped liquid

Density: 1000 kg/m³.

Kinematic viscosity: 1 mm²/s (1 cSt).



When pumping liquids with a density and/or a kinematic viscosity higher than the values stated above, use motors with correspondingly higher outputs.

Flow rate

Keep a minimum flow rate to avoid sedimentation in the pipe network. Recommended minimum flow rates:

- in vertical pipes: 0.7 m/s.
- in horizontal pipes: 1.0 m/s.

Ambient temperature

The ambient temperature may exceed 40 °C, up to a maximum of 60 °C for a short period (maximum 3 minutes).

Altitude

The product operates correctly up to 1000 m altitude above sea level.

Liquid temperature

0 to +40 °C.

The liquid temperature may be up to 60 °C for a short period (maximum 3 minutes).

Operating mode

The pumps are designed for continuous operation.

Installation depth



Do not use extended power cables. Only use a single-piece power cable that is longer than the depth of installation.

Maximum 20 m below liquid level. Custom variants may be installed at maximum 30 meters depth, but not explosion-proof pumps. Power cable length must always be more than installation depth.

Enclosure class

IP68.

Sound Pressure



Use hearing protection when working nearby an installation in operation with a sound pressure level above 70 dB(A).

Motor liquid

The motor is factory-filled with Grundfos SML3 motor liquid which is frost-resistant until -20 °C. The motor liquid helps to transfer the heat generated by the motor to the cooling chamber and to the pumped liquid to pass on the outside of the pump.

Electrical data

The supply voltage and frequency are marked on the nameplate.

The voltage tolerance at the motor terminals must be within $\pm 10\%$ of the rated voltage.

Maximum number of starts per hour

30.

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

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

Declaration of conformity

GB: EC/EU declaration of conformity

We, Grundfos, declare under our sole responsibility that the product SE/SL 25-63 kW, 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.

CZ: Prohlášení o shodě EU

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobek SE/SL 25-63 kW, na který se toto prohlášení vztahuje, je v souladu s níže uvedenými ustanoveními směrnice Rady pro sbližení právních předpisů členských států Evropského společenství.

DK: EF-/EU-overensstemmelseserklæring

Vi, Grundfos, erklærer under ansvar at produktet SE/SL 25-63 kW som erklæringen nedenfor omhandler, er i overensstemmelse med Rådets direktiver der er nævnt nedenfor, om indbyrdes tilnærmelse til EF-/EU-medlemsstaternes lovgivning.

ES: Declaración de conformidad de la CE/UE

Grundfos declara, bajo su exclusiva responsabilidad, que el producto SE/SL 25-63 kW 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.

FR: Déclaration de conformité CE/UE

Nous, Grundfos, déclarons sous notre seule responsabilité, que le produit SE/SL 25-63 kW, 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.

HR: EC/EU deklaracija sukladnosti

Mi, Grundfos, izjavljujemo s punom odgovornošću da je proizvod SE/SL 25-63 kW, na koja se izjava odnosi u nastavku, u skladu s dolje navedenim direktivama Vijeća o usklađivanju zakona država članica EC/EU-a.

IT: Dichiarazione di conformità CE/UE

Grundfos dichiara sotto la sua esclusiva responsabilità che il prodotto SE/SL 25-63 kW, al quale si riferisce questa dichiarazione, è conforme alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE/UE.

BG: Декларация за съответствие на ЕС/ЕО

Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктът SE/SL 25-63 kW, за който се отнася настоящата декларация, отговаря на следните директиви на Съвета за уеднаквяване на правните разпоредби на държавите-членки на ЕС/ЕО.

DE: EG-/EU-Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass das Produkt SE/SL 25-63 kW, auf das sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EG-/EU-Mitgliedsstaaten übereinstimmt.

EE: EÜ/ELi vastavusdeklaratsioon

Meie, Grundfos, kinnitame ja kanname ainuisikuil vastutust selle eest, et toode SE/SL 25-63 kW, mille kohta all olev deklaratsioon käib, on kooskõlas Nõukogu Direktiividega, mis on nimetatud all pool vastavalt vastuvõetud õigusaktidele ühtlustamise kohta EÜ/EL liikmesriikides.

FI: EY-/EU-vaatimustenmukaisuusvakuutus

Grundfos vakuuttaa omalla vastuullaan, että tuote SE/SL 25-63 kW, jota tämä vakuutus koskee, on EY-/EU:n jäsenvaltioiden lainsäädännön lähentämiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukainen seuraavasti.

GR: Δήλωση συμμόρφωσης ΕΚ/ΕΕ

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι το προϊόν SE/SL 25-63 kW, στο οποίο αναφέρεται η παρακάτω δήλωση, συμμορφώνεται με τις παρακάτω Οδηγίες του Συμβουλίου περί προσέγγισης των νομοθεσιών των κρατών μελών της ΕΚ/ΕΕ.

HU: EC/EU megfeleléségi nyilatkozat

Mi, a Grundfos vállalat, teljes felelősséggel kijelentjük, hogy a(z) SE/SL 25-63 kW termék, amelyre az alábbi nyilatkozat vonatkozik, megfelel az Európai Unió tagállamainak jogi irányelveit összehangoló tanács alábbi előírásainak.

LT: EB/ES atitikties deklaracija

Mes, Grundfos, su visa atsakomybe pareiškiamo, kad produktas SE/SL 25-63 kW, kuriam skirta ši deklaracija, atitinka Žemiau nurodytas Tarybos Direktyvas dėl EB/ES šalių narių įstatymų suderinimo.

LV: EK/ES atbilstības deklarācija

Sabiedrība Grundfos ar pilnu atbildību paziņo, ka produkts SE/SL 25-63 kW, uz kuru attiecas tālāk redzamā deklarācija, atbilst tālāk norādītajām Padomes direktīvām par EK/ES dalībvalstu normatīvo aktu tuvināšanu.

PL: Deklaracja zgodności WE/UE

My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasz produkt SE/SL 25-63 kW, którego deklaracja niniejsza dotyczy, jest zgodny z następującymi dyrektywami Rady w sprawie zbliżenia przepisów prawnych państw członkowskich.

RO: Declarația de conformitate CE/UE

Noi Grundfos declarăm pe propria răspundere că produsul SE/SL 25-63 kW, la care se referă această declarație, este în conformitate cu Directivele de Consiliu specificate mai jos privind armonizarea legilor statelor membre CE/UE.

RU: Декларация о соответствии нормам ЕЭС/ЕС

Мы, компания Grundfos, со всей ответственностью заявляем, что изделие SE/SL 25-63 kW, к которому относится нижеприведенная декларация, соответствует нижеприведенным Директивам Совета Евросоюза о тождественности законов стран-членов ЕЭС/ЕС.

SI: Izjava o skladnosti ES/UE

V Grundfosu s polno odgovornostjo izjavljamo, da je izdelek SE/SL 25-63 kW, na katerega se spodnja izjava nanaša, v skladu s spodnjimi direktivami Sveta o približevanju zakonodaje za izenačevanje pravnih predpisov držav članic ES/UE.

TR: EC/AB uygunluk bildirgesi

Grundfos olarak, aşağıdaki bildirim konusu olan SE/SL 25-63 kW ürünlerinin, EC/AB üye ülkelerinin direktiflerinin yakınlştırılmasıyla ilgili durumun aşağıdaki Konsey Direktifleriyle uyumlu olduğunu ve bununla ilgili olarak tüm sorumluluğun bize ait olduğunu beyan ederiz.

CN: 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 SE/SL 25-63 kW 系列，其制造和性能完全符合以下所列欧盟委员会指令。

KO: EC/UE 적합성 선언

Grundfos는 아래의 선언과 관련된 SE/SL 25-63 kW 제품이 EU 회원국 법률에 기반하여 아래의 이사회 지침을 준수함을 단독 책임 하에 선언합니다.

NL: EG-/EU-conformiteitsverklaring

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat product SE/SL 25-63 kW, 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.

PT: Declaração de conformidade CE/UE

A Grundfos declara sob sua única responsabilidade que o produto SE/SL 25-63 kW, 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.

RS: Deklaracija o usklađenosti EC/EU

Mi, kompanija Grundfos, izjavljujemo pod punom vlastitom odgovornošću da je proizvod SE/SL 25-63 kW, na koji se odnosi deklaracija ispod, u skladu sa dole prikazanim direktivama Saveta za usklađivanje zakona država članica EC/EU.

SE: EG-/EU-försäkran om överensstämmelse

Vi, Grundfos, försäkrar under ansvar att produkten SE/SL 25-63 kW, som omfattas av nedanstående försäkran, är i överensstämmelse med de rådsdirektiv om inbördes närmande till EG-/EU-medlemsstaternas lagstiftning som listas nedan.

SK: EC/ÉU vyhlásenie o zhode

My, spoločnosť Grundfos, vyhlasujeme na svoju plnú zodpovednosť, že produkt SE/SL 25-63 kW, na ktorý sa vyhlásenie uvedené nižšie vzťahuje, je v súlade s ustanoveniami nižšie uvedených smerníc Rady pre zblíženie právnych predpisov členských štátov EC/ÉU.

UA: Декларація відповідності директивам EC/UE

Ми, компанія Grundfos, під нашу одноосібну відповідальність заявляємо, що виріб SE/SL 25-63 kW, до якого відноситься нижченаведена декларація, відповідає директивам EC/UE, переліченим нижче, щодо тотожності законів країн-членів ЄС.

JP: EC/UE 適合宣言

Grundfos は、その責任の下に、SE/SL 25-63 kW 製品が EC/UE 加盟諸国の法規に関連する、以下の評議会指令に適合していることを宣言します。

BS: Izjava o usklađenosti EC/EU

Mi, kompanija Grundfos, izjavljujemo pod vlastitom odgovornošću da je proizvod SE/SL 25-63 kW, na koji se odnosi izjava ispod, u skladu sa niže prikazanim direktivama Vijeća o usklađivanju zakona država članica EC/EU.

ID: Deklarasi kesesuaian Komunitas Eropa/Uni Eropa

Kami, Grundfos, menyatakan dengan tanggung jawab kami sendiri bahwa produk SE/SL 25-63 kW, yang berkaitan dengan pernyataan ini, sesuai dengan Petunjuk Dewan serta sedapat mungkin sesuai dengan hukum negara-negara anggota Komunitas Eropa/Uni Eropa.

МК: Декларација за сообразност на Е3/ЕУ

Ние, Grundfos, изјавуваме под целосна одговорност дека производот SE/SL 25-63 kW, на кого се однесува долунаведената декларација, е во согласност со овие директиви на Советот за приближување на законите на земјите-членки на Е3/ЕУ.

NO: EFs/EUs samsvarsærklæring

Vi, Grundfos, erklærer under vårt eneansvar at produktet SE/SL 25-63 kW, som denne erklæringen gjelder, er i samsvar med Det europeiske råd's direktiver om tilnærming av forordninger i EF-/EU-landene.

TH: คำประกาศความสอดคล้องตามมาตรฐาน EC/EU

เราในนามของบริษัท Grundfos ขอประกาศภายใต้ความรับผิดชอบของเราแต่เพียงผู้เดียวว่าผลิตภัณฑ์ SE/SL 25-63 kW ซึ่งเกี่ยวข้องกับคำประกาศนี้มีความสอดคล้องกับระเบียบคำสั่งตามรายการด้านล่างนี้ของสภาวิชาชีพว่าด้วยค่าประมาณตามกฎหมายของรัฐที่เป็นสมาชิก EC/EU

KZ: Сәйкестік жөніндегі ЕК/ЕО декларациясы

Біз, Grundfos, ЕК/ЕО мүше елдерінің заңдарына жақын төменде көрсетілген Кеңес директиваларына сәйкес төмендегі декларацияға қатысты SE/SL 25-63 kW өнімі біздің жеке жауапкершілігімізде екенін мәлімдейміз.

MY: Perisytiharan keakuran EC/EU

Kami, Grundfos, mengisytiharkan di bawah tanggungjawab kami semata-mata bahawa produk SE/SL 25-63 kW, yang berkaitan dengan perisytiharan di bawah, akur dengan Perintah Majlis yang disenaraikan di bawah ini tentang penghampiran undang-undang negara ahli EC/EU.

(EC/EU) إقرار مطابقة الاتحاد الأوروبي :AR

نقر نحن، جروندفوس، بمقتضى مسؤوليتنا الفردية بأن المنتج SE/SL 25-63 kW، الذي يختص به الإقرار أدناه، يكون مطابقاً لتوجيهات المجلس المذكورة أدناه بشأن التقريب بين قوانين الدول أعضاء الاتحاد الأوروبي (EC/EU).

AL: Deklara e konformitetit të KE/BE

Ne, Grundfos, deklarojmë vetëm nën përgjegjësinë tonë se produkti SE/SL 25-63 kW, me të cilin ka lidhje kjo deklaratë, është në pajtim me direktivat e Këshillit të renditura më poshtë për përafirimin e ligjeve të shteteve anëtare të KE-/BE-së.

- Machinery Directive (2006/42/EC).
Standards used: EN 809:1998+A1:2009
- EMC Directive (2014/30/EU)
Standards used: EN 61326-1:2013
- RoHS Directives (2011/65/EU and 2015/863/EU).
Standard used: EN IEC 63000:2018
- ATEX Directive (2014/34/EU)
Applies only to products intended for use in potentially explosive environments, Ex II 2G. The Ex classification is given on the nameplate and in EU-type examination certificate. Further information, see below.

Certificate No: FM23ATEXxxxxX

Standards used: EN IEC 60079-0: 2018, EN 60079-1:2014, EN 60529:1991+A1:2000+A2:2013, EN ISO 80079-36:2016, EN ISO 80079-37:2016

Notified body for EU – Type Certificate: FM Approvals Europe Ltd., No 2809, Dublin, Ireland

Notified body for production: DEKRA Certification B.V., No. 0344, Meaner 1051, 6825 MJ Arnhem, The Netherlands

Manufacturer: Grundfos Holding A/S, Poul Due Jensens Vej 7, DK-8850 Bjerringbro, Denmark

This EC/EU declaration of conformity is only valid when published as part of the Grundfos safety instructions (publication number 92777905).

Székesfehérvár, 12th September, 2023
10000458446



Zoltán Lajtos

MUNI Solutions Value Stream Director
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

Person authorised to compile technical file and empowered to sign the EC/EU declaration of conformity.

Declaration of conformity

UK declaration of conformity

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

Valid for Grundfos products:

SE/SL 25-63 kW

- Supply of Machinery (Safety) Regulations 2008
Standards used: EN 809:1998+A1:2009
- Electromagnetic Compatibility Regulations 2016
Standards used: EN 61326-1:2013
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2019
Standard used: EN IEC 63000:2018
- Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016
Applies only to products with Ex II 2G marking on nameplate. Further information, see below.

Zoltán Lajtos
MUNI Solutions Value Stream Director
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark
Manufacturer and person empowered to sign the UK
declaration of conformity.
10000458452

Certificate No: FM23ATEXxxxxX

Standards used: EN IEC 60079-0: 2018, EN 60079-1:2014, EN 60529:1991+A1:2000+A2:2013, EN ISO 80079-36:2016, EN ISO 80079-37:2016

Approved body for UK – Type Certificate: FM Approvals Ltd., No. 1725, United Kingdom

Approved body for production: DEKRA Certification UK Ltd., No 8505, Stokenchurch House, Oxford Road, Stokenchurch, HP14 3SX, United Kingdom

Manufacturer: Grundfos Holding A/S, Poul Due Jensens Vej 7, DK-8850 Bjerringbro, Denmark

This UK declaration of conformity is only valid when accompanying Grundfos instructions (publication number 92777905).

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

Székesfehérvár, 12th September, 2023



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:

SE/SL 25-63 kW

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

Order No 2574-14, 2015 Electromagnetic Compatibility

Standards used: NM EN 61326-1:2016

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



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 :

SE/SL 25-63 kW

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

Compatibilité électromagnétique, ordonnance n° 2574-14, 2015

Normes utilisées : NM EN 61326-1:2016

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



AR: إقرار المطابقة المغربي

نحن، جروندفوس، نقر تحت مسؤوليتنا وحدنا بأن المنتجات التي يتعلق بها الإقرار أدناه، تتوافق مع القوانين والقرارات والمعايير والمواصفات المغربية التي تم إقرار المطابقة بشأنها، كما هو موضح أدناه:
سار على منتجات جروندفوس:

SE/SL 25-63 kW

قانون رقم 09-24، 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

القرار رقم 14-2574، 2015 التوافق الكهرومغناطيسي

المعايير المستخدمة: NM EN 61326-1:2016

يكون إقرار المطابقة المغربي صالحًا فقط عند نشره كجزء من تعليمات جروندفوس.

Székesfehérvár, 20.01.2023

Zoltán Lajtos

MUNI Solutions Value Stream Director

Grundfos Holding A/S

Poul Due Jensens Vej 7

8850 Bjerringbro, Denmark

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

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

AR: الجهة المصنعة والشخص المفوض بتوقيع إقرار المطابقة المغربي.

10000505047

Declaration of conformity



GB: Ukrainian declaration of conformity

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

Valid for Grundfos products:

SE/SL 25-63 kW

Resolution No. 62, 2013 - Technical Regulations on Safety of Machines

Resolution No. 533, 2018 - Amendments to some provisions

Standards used: ДСТУ EN 809:2015

Resolution No. 1077, 2015 - Technical Regulations on Electromagnetic Compatibility

Resolution No. 533, 2018 - Amendments to some provisions

Standards used: ДСТУ EN 61326-1:2016

Resolution No. 139, 2017 - Technical Regulations on Use of Certain Hazardous Substances in Electrical and Electronic Equipment

Standards used: ДСТУ EN IEC 63000:2020

Resolution No. 1055, 2016 - Technical regulation of the equipment and the protective systems intended for use in potentially explosive environments

Resolution No. 102, 2020 - Amendments to some resolutions of the Cabinet of Ministers of Ukraine

Standards used: ДСТУ EN IEC 60079-0:2019, ДСТУ EN 60079-1:2017, ДСТУ EN 60529:2014, ДСТУ EN ISO 80079-36:2017, ДСТУ EN ISO 80079-37:2017

ATEX certificate number: FM23ATEXxxxxX

Name and address of Notified body (ATEX):

DEKRA Certification B.V., No. 0344, Meander 1051, 6825 MJ Arnhem, The Netherlands.

Importer address:

LLC Grundfos Ukraine, Business Center Europe

103, Stolychne Shose, UA-03026 Kyiv, Ukraine

Phone: (+380) 44 237 0400

Email: ukraine@grundfos.com

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



UA: Українська декларація відповідності

Ми, Grundfos, заявляємо про свою виключну відповідальність за те, що продукція, до якої відноситься ця декларація, відповідає вимогам українським постановам, стандартам та технічним умовам, щодо яких заявлена відповідність, як зазначено нижче:

Дійсно для продуктів Grundfos:

SE/SL 25-63 kW

Постанова № 62 від 2013 р., Про затвердження Технічного регламенту безпеки машин

Постанова № 533 від 2018 р., Про внесення змін до деяких положень

Застосовані стандарти: ДСТУ EN 809:2015

Постанова № 1077 від 2015 р., Технічний регламент з електромагнітної сумісності обладнання

Постанова № 533 від 2018 р., Про внесення змін до деяких положень

Застосовані стандарти: ДСТУ EN 61326-1:2016

Постанова № 139 від 2017 р., Технічний регламент обмеження використання деяких небезпечних речовин в електричному та електронному обладнанні

Застосовані стандарти: ДСТУ EN IEC 63000:2020

Постанова № 1055 від 2016 р., Технічний регламент обладнання та захисних систем, призначених для використання в потенційно вибухонебезпечних середовищах

Постанова № 102 від 2020 р., Про внесення змін до деяких постанов Кабінету Міністрів України

Застосовані стандарти: ДСТУ EN IEC 60079-0:2019, ДСТУ EN 60079-1:2017, ДСТУ EN 60529:2014, ДСТУ EN ISO 80079-36:2017, ДСТУ EN ISO 80079-37:2017

Номер сертифіката ATEX: FM23ATEXxxxxX

Назва та адреса уповноваженого органу з сертифікації (ATEX):

DEKRA Certification B.V., No. 0344, Meander 1051, 6825 MJ Арнем, Нідерланди.

Адреса імпортера:

ТОВ "Грундфос Україна", Бізнес Центр "Європа"

Столичне шосе, 103, м. Київ, 03026, Україна

Телефон: (+380) 44 237 0400

Ел. пошта: ukraine@grundfos.com

Ця українська декларація відповідності дійсна лише за наявності інструкцій Grundfos.

Székesfehérvár, 12th September, 2023

Zoltán Lajtos
MUNI Solutions Value Stream Director
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

GB: Manufacturer and person empowered to sign the Ukrainian declaration of conformity

UA: Виробник та особа, уповноважена підписати українську декларацію відповідності

[10000505043]

Argentina

Bombas GRUNDFOS de Argentina S.A.
Ruta Panamericana km. 37.500 Industrias
1619 - Garin Pcia. de B.A.
Tel.: +54-3327 414 444
Fax: +54-3327 45 3190

Australia

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

Austria

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

Belgium

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

Bosnia and Herzegovina

GRUNDFOS Sarajevo
Zmajia od Bosne 7-7A
BiH-71000 Sarajevo
Tel.: +387 33 592 480
Fax: +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
Tel.: +55-11 4393 5533
Fax: +55-11 4343 5015

Bulgaria

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

Canada

GRUNDFOS Canada inc.
2941 Brighton Road
Oakville, Ontario
L6H 6C9
Tel.: +1-905 829 9533
Fax: +1-905 829 9512

China

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

Columbia

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

Croatia

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

Czech Republic

GRUNDFOS Sales Czechia and Slovakia
s.r.o.
Čajkovského 21
779 00 Olomouc
Tel.: +420-585-716 111

Denmark

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

Estonia

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

Finland

OY GRUNDFOS Pumput AB
Trukkikujua 1
FI-01360 Vantaa
Tel.: +358-(0) 207 889 500

France

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

Germany

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

Greece

GRUNDFOS Hellas A.E.B.E.
20th km. Athinon-Markopoulou Av.
P.O. Box 71
GR-19002 Peania
Tel.: +0030-210-66 83 400
Fax: +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
Tel.: +852-27861706 / 27861741
Fax: +852-27858664

Hungary

GRUNDFOS Hungária Kft.
Tópark u. 8
H-2045 Törökbalint
Tel.: +36-23 511 110
Fax: +36-23 511 111

India

GRUNDFOS Pumps india Private Limited
118 Old Mahabalipuram Road
Thoraipakkam
Chennai 600 097
Tel.: +91-44 2496 6800

Indonesia

PT GRUNDFOS Pompa
Graha intrub Lt. 2 & 3
Jl. Cililitan Besar No.454. Makasar,
Jakarta Timur
ID-Jakarta 13650
Tel.: +62 21-469-51900
Fax: +62 21-460 6910 / 460 6901

Ireland

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

Italy

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

Japan

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

Kazakhstan

Grundfos Kazakhstan LLP
7' Kyz-Zhibek Str., Kok-Tobe micr.
KZ-050020 Almaty Kazakhstan
Tel.: +7 (727) 227-98-55/56

Korea

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

Latvia

SIA GRUNDFOS Pumps Latvia
Deglava biznesa centrs
Augusta Deglava ielā 60
LV-1035, Rīga,
Tel.: + 371 714 9640, 7 149 641
Fax: + 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
Tel.: +60-3-5569 2922
Fax: +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
Tel.: +52-81-8144 4000
Fax: +52-81-8144 4010

Netherlands

GRUNDFOS Netherlands
Veluwezoom 35
1326 AE Almere
Postbus 22015
1302 CA ALMERE
Tel.: +31-88-478 6336
Fax: +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
Tel.: +64-9-415 3240
Fax: +64-9-415 3250

Norway

GRUNDFOS Pumper A/S
Strømsveien 344
Postboks 235, Leirdal
N-1011 Oslo
Tel.: +47-22 90 47 00
Fax: +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
Fax: +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

Serbia

Grundfos Srbija d.o.o.
Ormladinskih brigada 90b
11070 Novi Beograd
Tel.: +381 11 2258 740
Fax: +381 11 2281 769
www.rs.grundfos.com

Singapore

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

Slovakia

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

Slovenia

GRUNDFOS LJUBLJANA, d.o.o.
Leskoškova 9e, 1122 Ljubljana
Tel.: +386 (0) 1 568 06 10
Fax: +386 (0) 1 568 06 19
E-mail: tehnika-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 Fuentevilla, s/n
E-28110 Algete (Madrid)
Tel.: +34-91-848 8800
Fax: +34-91-628 0465

Sweden

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

Switzerland

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

Taiwan

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

Thailand

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

Turkey

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

Ukraine

ТОВ "ГРУНДФОС УКРАЇНА"
Бізнес Центр Європа
Столичне шосе, 103
м. Київ, 03131, Україна
Tel.: (+38 044) 237 04 00
Fax: (+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
Tel.: +971 4 8815 166
Fax: +971 4 8815 136

United Kingdom

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

U.S.A.

Global Headquarters for WU
856 Koomey Road
Brookshire, Texas 77423 USA
Phone: +1-630-236-5500

Uzbekistan

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

92777905 12.2023

ECM: 1366422

www.grundfos.com

GRUNDFOS 