

For use in non-hazardous areas

Optional: For use in Zone 21 or 22 (IEC/EN 60079-10-2)

CE⁰¹⁰² Ex II 2D Ex tb IIIA/B/C T...°C Db or

CE Ex II 3D Ex tc IIIA/B/C T...°C Dc

LOHER CHEMSTAR

Induction motor

Type 1PS0

Operating Instructions / Installation Instructions N-R 601

Edition

08/2016

SIEMENS

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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

 DANGER
indicates that death or severe personal injury will result if proper precautions are not taken.

 WARNING
indicates that death or severe personal injury may result if proper precautions are not taken.

 CAUTION
indicates that minor personal injury can result if proper precautions are not taken.

NOTICE
indicates that property damage can result if proper precautions are not taken.


If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

 WARNING
Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Introduction

1.1 About these instructions

These instructions describe the machine and explain how to handle it, from initial delivery to final disposal of the equipment. Keep these instructions for later use.

Read these operating instructions before you handle the machine and follow the instructions to become familiar with its design and operating principles and thus ensure safe, problem-free machine operation and long service life.

Please contact the Service Center if you have any suggestions on how to improve this document.

Text format features

The warning notice system is explained on the rear of the inside front. Always follow the safety instructions and notices in these instructions.

In addition to the safety-related warning notices which you must read, you will find the text in these instructions is formatted in the following way:

1. Handling instructions are always formatted as a numbered list. Always perform the steps in the order given.
- Lists are formatted as bulleted lists.
 - Lists on the second level are hyphenated.

Note

A Note is an important item of information about the product, handling of the product or the relevant section of the document. Notes provide you with help or further suggestions/ideas.

Introduction

1.1 About these instructions

Safety information

2.1 Information for those responsible for the plant

This electric machine has been designed and built in accordance with the specifications contained in Directive 2014/35/EU ("Low-Voltage Directive") and is intended for use in industrial plants. Please observe the country-specific regulations when using the electric machine outside the European Community. Follow the local and industry-specific safety and setup regulations.

The persons responsible for the plant must ensure the following:

- Planning and configuration work and all work carried out on and with the machine is only to be done by qualified personnel.
- The operating instructions must always be available for all work.
- The technical data as well as the specifications relating to the permissible installation, connection, ambient and operating conditions are taken into account at all times.
- The specific setup and safety regulations as well as regulations on the use of personal protective equipment are observed.

Note

Use the services and support provided by the appropriate Service Center for planning, installation, commissioning, and servicing work.

You will find safety instructions in the individual sections of this document. Follow the safety instructions for your own safety, to protect other people and to avoid damage to property.

Observe the following safety instructions for all activities on and with the machine.

2.2 The five safety rules

For your own personal safety and to prevent material damage when carrying out any work, always observe the safety-relevant instructions and the following five safety rules according to EN 50110-1 "Working in a voltage-free state". Apply the five safety rules in the sequence stated before starting work.

Five safety rules

1. Disconnect the system.
Also disconnect the auxiliary circuits, for example, anti-condensation heating.
2. Secure against reconnection.
3. Verify absence of operating voltage.
4. Ground and short-circuit.
5. Provide protection against adjacent live parts.

To energize the system, apply the measures in reverse order.

2.3 Qualified personnel

All work at the machine must be carried out by qualified personnel only. For the purpose of this documentation, qualified personnel is taken to mean people who fulfill the following requirements:

- Through appropriate training and experience, they are able to recognize and avoid risks and potential dangers in their particular field of activity.
- They have been instructed to carry out work on the machine by the appropriate person responsible.


2.4 Safe handling

Workplace safety depends on the attentiveness, care, and common sense of the personnel who install, operate, and maintain the machine. In addition to the safety measures cited, as a matter of principle, the use of caution is necessary when you are near the machine. Always pay attention to your safety.

Also observe the following to prevent accidents:

- General safety regulations applicable in the country where the machine is deployed.
- Manufacturer-specific and application-specific regulations
- Special agreements made with the operator
- Separate safety instructions supplied with the machine
- Safety symbols and instructions on the machine and its packaging



 WARNING
Live parts Electric machines contain live parts. Fatal or severe injuries and substantial material damage can occur if the covers are removed or if the machine is not handled, operated, or maintained properly. <ul style="list-style-type: none">• Always observe the "five safety rules" when carrying out any work on the machine.• Only remove the covers using the methods described by these operating instructions.• Operate the machine properly.• Regularly and correctly maintain the machine.

**! WARNING****Rotating parts**

Electric machines contain dangerous rotating parts.

Fatal or severe injuries and substantial material damage can occur if the covers are removed or if the machine is not handled, operated, or maintained properly.

- Only remove the covers using the methods described by these operating instructions.
- Operate the machine properly.
- Regularly and correctly maintain the machine.
- Secure free-standing shaft ends and other rotating parts such as couplings, belt pulleys etc. against touch.

**! WARNING****Hot surfaces**

Electric machines have hot surfaces. Do not touch these surfaces. They could cause burns.

- Allow the machine to cool before starting work on the machine.
- Only remove the covers using the methods described by these operating instructions.
- Operate the machine properly.

**! CAUTION****Hazardous substances**

Chemical substances required for the setup, operation and maintenance of machines can present a health risk.

Poisoning, skin damage, cauterization of the respiratory tract, and other health damage may result.

- Read the information in these operating instructions and the product information supplied by the manufacturer.
- Observe the relevant safety regulations and wear the personal protective equipment specified.

! CAUTION**Flammable substances**


Chemical substances required for the setup, operation and maintenance of machines may be flammable.

Burns and other damage to health and material may result.

- Read the information in these operating instructions and the product information supplied by the manufacturer.
- Observe the relevant safety regulations and wear the personal protective equipment specified.

See also

The five safety rules (Page 13)

 WARNING
Noise emissions During operation, the machine's noise emission levels can exceed those permitted at the workplace, which can cause hearing damage. Take steps to reduce noise, such as introducing covers and protective insulation or adopting hearing protection measures, so that the machine can be operated safely within your system.

2.5 Use in hazardous areas

Electrical systems in hazardous zones must be assembled, installed, and operated by the applicable responsible persons in accordance with the applicable rules and regulations.

Note

The basic requirements relating to electrical systems and their operation in hazardous areas are described, for instance, in EU Directive 1999/92/EC as well as in IEC / EN 60079-14.

Ignition hazards

The assessment of operating risks and local operating conditions and the necessary monitoring methods must be clarified and made binding by the system operator in consultation with the responsible supervisory authority. The required measures must be adhered to at all times. The machine manufacturer cannot provide any generally applicable recommendations. Please observe the information in these operating instructions.

Note

The basic requirements relating to the assessment of ignition hazards arising from electrical equipment and their operation in hazardous zones are specified in the 2014/34/EU and 1999/92/EC directives as well as in the IEC/EN 60079 series of standards.

If a third-party certification is available for the machine, then carefully comply with the technical data defined in it and any special conditions.

The certificate must be available before commissioning.

2.6 Electrostatic sensitive devices

ESD protective measures



NOTICE

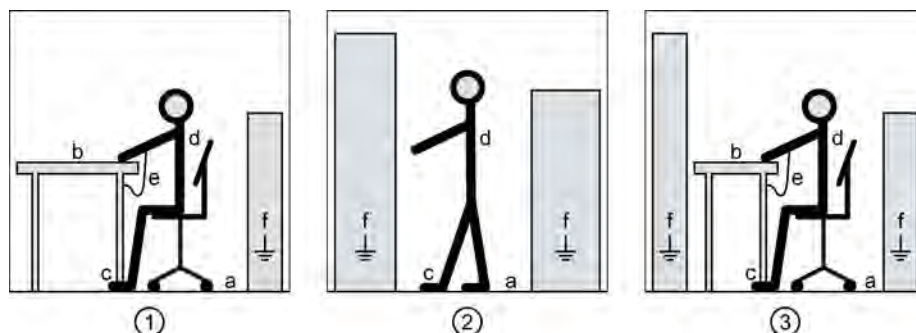
Electrostatic discharge

Electronic modules contain components that can be destroyed by electrostatic discharge. These modules can be easily destroyed by improper handling.

To protect equipment against damage, follow the instructions given below.

- Only touch electronic modules if you absolutely have to work on them.
- The body of the person concerned must have been electrostatically discharged and grounded immediately before any electronic modules are touched.
- Electronic modules should not be brought into contact with electrically insulating materials, such as:
 - Plastic film
 - Plastic parts
 - Insulating table supports
 - Clothing made of synthetic fibers
- Always place electrostatic sensitive devices on conductive bases.
- Always pack, store and transport electronic modules or components in conductive packaging, such as:
 - Metallized plastic or metal containers
 - Conductive foam material
 - Domestic aluminum foil

The necessary ESD protective measures for electrostatic sensitive devices are illustrated once again in the following drawings:



(1) Sitting

a = conductive floor surface

d = ESD overall

(2) Standing

b = ESD table

e = ESD wristband

(3) Standing/sitting

c = ESD shoes

f = cabinet ground connection

2.9 Interference voltages when operating the converter

2.7 Interference immunity

The machine fulfills the requirements regarding interference immunity in conformity with IEC/EN 61000-6-2.

On machines with integrated sensors (e.g. PTC thermistors), the manufacturer of the overall system must himself ensure sufficient interference immunity by selecting suitable sensor signal leads and evaluation units.

2.8 Influence on the line power supply through a strongly irregular torque

A strongly irregular torque, for example with the drive of a reciprocating motor, forces a non-sinusoidal motor current. The emerging harmonics can have an impermissible influence on the line power supply via the connection lines.

2.9 Interference voltages when operating the converter




WARNING

Interference voltages when operating the converter

When a converter is in operation, the emitted interference varies in strength depending on the converter (manufacturer, type, interference suppression measures undertaken). On machines with integrated sensors (e.g. PTC thermistors), interference voltages caused by the converter may occur on the sensor lead. This can cause faults which can result in eventual or immediate death, serious injury or material damage.

Observe the EMC instructions of the converter manufacturer in order to avoid exceeding the limit values according to IEC/EN 61000-6-3 for drive systems comprising machine and converter. You must put appropriate EMC measures in place.

2.10 Electromagnetic fields when operating electrical power engineering installations

 WARNING
Interference to electronic devices caused by electrical power equipment
Electrical power equipment generate electric fields during operation. Potentially lethal malfunctions can occur in medical implants, e.g. pacemakers, in the vicinity of electrical power equipment. Data may be lost on magnetic or electronic data carriers.
<ul style="list-style-type: none">• It is forbidden for people with pacemakers to enter the vicinity of the machine.• Protect the personnel working in the plant by taking appropriate measures, such as erecting identifying markings, safety barriers and warning signs and giving safety talks.• Observe the nationally applicable health and safety regulations.• Do not carry any magnetic or electronic data media.

Description

Applications

This electrical machine is designed for driving rotating machines in industrial environments and also for energy conversion. It is characterized by a high level of safety, long lifetime, and overall reliability.

The machine was designed in accordance with the ordering party's specification and may only be used for the contractually agreed purpose.

NOTICE
This low-voltage machine is designed for industrial plants and systems.
It complies with the standards of the 60034 series (VDE 0530) in accordance with the low-voltage directive 2014/35/EU. For use in hazardous zones, the machine is marked according to directive 2014/34/EU.

Type of protection Ex tb, Ex tc

Optionally, this motor has "Protection through enclosure" (Ex t) type of protection according to IEC / EN 60079-0 and IEC / EN 60079-31 . Then, it may be operated in hazardous areas of **Zones 21 and 22** in the Ex tb type of protection and **Zone 22** in the Ex tc type of protection according to IEC / EN 60079-10-2.

Machines with type of protection Ex t can be marked as follows:

Table 3-1 Marking of machines with type of protection Ex tb for Zone 21







Directive	Ex marking
2014/34/EU with EC or EU type-examination certificate	CE ⁰¹⁰²  II 2D Ex tb IIIC T... °C Db CE ⁰¹⁰²  II 2D Ex tb IIIB T... °C Db CE ⁰¹⁰²  II 2D Ex tb IIIA T... °C Db
IECEx scheme with Certificate of Conformity	Ex tb IIIC T... °C Db Ex tb IIIB T... °C Db Ex tb IIIA T... °C Db

Table 3-2 Marking of machines with type of protection Ex tc for Zone 22 without certificate

Directive	Ex marking
2014/34/EU optionally with outside body certificate	 II 3D Ex tc IIIC T... °C Dc  II 3D Ex tc IIIB T... °C Dc  II 3D Ex tc IIIA T... °C Dc
IECEX scheme with Certificate of Conformity	Ex tc IIIC T... °C Dc Ex tc IIIB T... °C Dc Ex tc IIIA T... °C Dc

Machine design

The regulations and standards used as the basis to design and test this machine are stamped on the rating plate.

The machine design basically complies with the subsequent standards. Please refer to the EC or EU Declarations of Conformity for the versions of the harmonized standards referenced.

Table 3-3 Machine design

Feature	Standard
Rating and performance	IEC/EN 60034-1
Degree of protection	IEC/EN 60034-5
Cooling	IEC/EN 60034-6
Type of construction	IEC/EN 60034-7
Terminal markings and direction of rotation	IEC/EN 60034-8
Noise emission	IEC/EN 60034-9
Starting characteristics, rotating electrical machines	IEC/EN 60034-12*
Vibration severity grades	IEC/EN 60034-14
Vibration limits	DIN ISO 10816-3

* For machines in line operation only

See also

Quality documents (Page 121)

When this machine is optionally implemented with type of protection "Protection through enclosure" (Ex t) according to IEC / EN 60079-0 and IEC / EN 60079-31, then the following standards apply:

Table 3-4 Machine design with type of protection Ex tb or Ex tc

Feature	Standard
Type of protection Ex tb or Ex tc	IEC / EN 60079-0 IEC / EN 60079-31

Rating plate

The rating plate shows the identification data and the most important technical data. The data on the rating plate and the contractual agreements define the limits of proper usage.

Rotor

The rotor has a squirrel cage rotor manufactured out of die-cast aluminum or a brazed copper rotor. The rotor is dynamically balanced with half feather key as standard. With a different balancing status the marking for the corresponding balancing status is made using an adhesive sticker.

Stator winding

The stator winding has a temperature class according to EN 60034-1, see rating plate. High-quality enameled wires, suitable surface insulating materials, and the type of impregnation guarantee great mechanical and electrical stability together with a high utility value and a long service life.

Machine housing with water jacket cooling

Stator frame and bearing shields are made of from cast iron or steel. The stator jacket is formed as a double jacket through which the coolant is fed. The frame is equipped with a cooling water inlet and outlet.

Machine housing with surface, hollow-rib or tube cooling

Depending on their size, the stator frame and bearing shields are made of cast iron or steel. The fan cover is made of sheet steel. The stator frame surface has cooling ribs, hollow ribs, or tubes and mounted terminal box.

Cooling for machines with water-jacket cooling

The stator frame has a double jacket that is split and through which the cooling water flows. As a consequence, there is a good heat dissipation and there is less risk of the suspended solids in the water being deposited.

Cooling for machines with surface cooling, hollow-rib cooling or tube cooling

For machines with rib, hollow-rib or tube cooling, the cooling air is drawn in through openings in the fan cover. The air is blown over the surface or through the cooling tubes of the stator frame. With hollow-rib or tube cooling, a closed cooling air circuit inside the machine assists with heat dissipation.

Bearings

The machine is equipped with grease-lubricated roller bearings.

- The bearings of the standard size machines (up to size 280) are permanently lubricated.
- The bearings of machines from size 315 upwards have a relubrication facility and automatic grease quantity control.

Terminal boxes

In the terminal box, additional connecting terminals are available if required for monitoring equipment. For larger machines, an additional terminal box can be optionally mounted. You can see the number of available terminals in the circuit diagrams.

Paint finish

The machine is painted according to the instructions in your order.

Supplementary devices

Depending on the order, various supplementary devices can be installed or mounted. These include sensors for bearing temperature monitoring or winding monitoring, for example.

Monitoring equipment

Monitoring equipment is provided corresponding to what has been ordered. KTY83 and KTY84 semiconductor sensors are electrostatic sensitive devices (ESD). These elements can be damaged by electrostatic discharge. Observe the ESD protective measures.

 DANGER

Risk of explosion during operation due to too high surface temperature

This can result in death, serious injury, or material damage.

- | |
|--|
| <ul style="list-style-type: none">• Prevent the maximum surface temperature from being exceeded by maintaining the specified operating conditions.• Monitor the coil temperature. Use the temperature sensor that is built into the stator winding for this as specified on the rating plate or extra rating plate. |
|--|

External fan

The machine can be fitted with an external fan. For IC 666, there are two external fans. The electrical connection data are stamped on the rating plate of the external fan.

Anti-condensation heating

The machine can be fitted with anti-condensation heating. The connection data is listed on an additional plate on the machine.

Float switches and damp location electrode

The machine can be fitted with float switches and/or damp location electrodes.

See also

Electrical connection (Page 57)

Preparations for use

Good planning and preparation of machine applications are essential in terms of keeping installation simple and avoiding errors, ensuring safe operation, and allowing access to the machine for servicing and corrective maintenance.

This chapter outlines what you need to consider when configuring your plant in relation to this machine and the preparations you need to make before the machine is delivered.

4.1 Safety-related aspects to consider when configuring the plant

A number of residual risks are associated with the machine. These are described in the chapter titled "Safety information" (Page 13) and in related sections.

Take appropriate safety precautions (covers, barriers, markings, etc.) to ensure the machine is operated safely within your plant.

Observing the operating mode

Observe the machine's operating mode. Use a suitable control system to prevent overspeeds, thus protecting the machine from damage.

4.2 Observing the operating mode

Observe the machine's operating mode. Use a suitable control system to prevent overspeeds, thus protecting the machine from damage.

4.3 Terminal box with separate cable entry plate

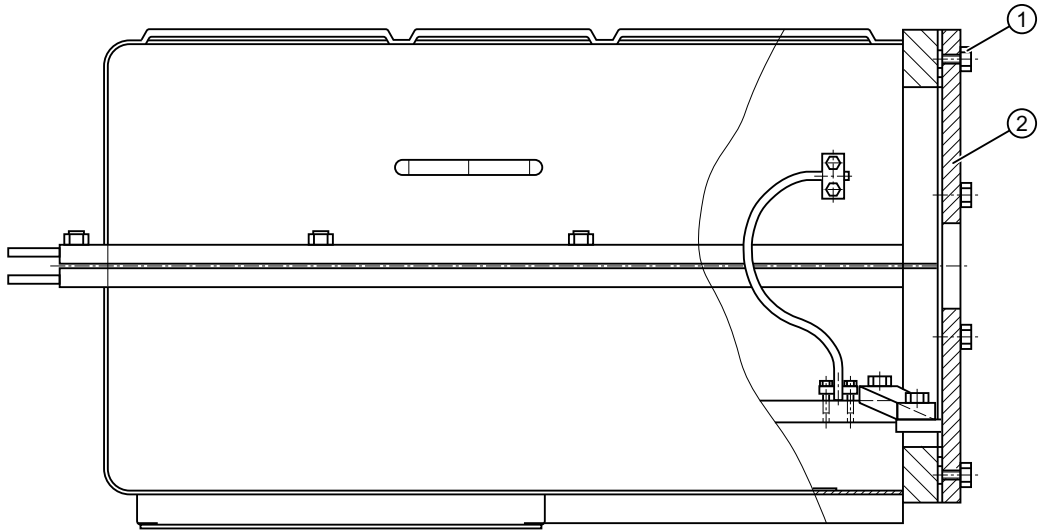



Image 4-1 Disassembly / assembly of terminal box

Opening the terminal box:

1. Unscrew the fixing screws ① and remove the ① cable entry plate ①. If present, unscrew the cable entry plate ① grounding strap from the terminal box base.
2. To protect the seals, position the cable entry plate ① a short distance away from the terminal box.
3. Unscrew the terminal box cover fixing screws ① and open the cover. For versions without hinges, lift the cover of the terminal box off.

Electrical connection and final assembly:

1. Screw the cable gland(s) into the cable entry plate ② and push the cable entry plate ② onto the connecting cables. Connect the cables to the terminals in accordance with all applicable guidelines.
2. To protect the seals, position the cable entry plate ② a short distance away from the terminal box. Then, if required, connect the grounding strap to the cable entry plate ②.
3. After making the electrical connections, close the cover of the terminal box. For versions without hinges, place the terminal box cover onto the terminal box base. The seal between the terminal box base and cover must be flush with the cable entry plate in order to ensure the required degree of protection.
4. Carefully push the cable entry plate ② toward the terminal box. Screw the terminal box base and cover together with the fixing screws ①. The terminal box base and cover must both be in contact with the cable entry plate ② to ensure the required degree of protection.
5. Screw the terminal box cover on. Ensure that the terminal box seals are intact and undamaged.

 DANGER
Danger due to damaged seals
Damaged seals can result in the failure of the explosion protection.
This can cause faults which can result in eventual or immediate death, serious injury or material damage.
Only operate the machine with intact, undamaged seals.

4.4 Machines without final paint coating

For machines, which are only delivered with primer, you must paint them to comply with the applicable guidelines for the specific application. The primer alone does not provide adequate corrosion protection.

The paint thickness is limited to the following values:

- Paint finish G04 $\leq 210 \mu\text{m}$
- Paint finish Z05 $\leq 550 \mu\text{m}$

Note

Please contact the Service Center for recommendations relating to the paint finish.

4.5 Corrosion protection for bare metal surfaces

The lower side of the machine mounting feet or the flange surface is bare metal. Ensure that there is adequate corrosion protection, e.g. using grease, sealing paste or a similar product. The terminal box cover also has bare metal surfaces. Here, only use a suitable grease to guarantee protection against corrosion.

4.6 Ensuring adequate cooling

Ensure that the machine is sufficiently cooled by the cooling air flow at the installation site:

- Ensure that the cooling air can flow in and out unobstructed. The full air flow provided by the fan is only possible if air can freely enter the impeller. In the axial direction, ensure a clearance of at least 1 x air intake diameter.
- Make sure that the machine does not draw in the hot discharged air again.
- For machines with a vertical type construction with an air intake from above, ensure that the air inlets are protected against the ingress of foreign bodies and water.

4.7 Protecting the cooling water circuit during storage

Anti-freeze protection

When supplied, the machine is not filled with cooling water, so that there is no risk of frost damage.

Protecting the cooling circuit against corrosion

You protect the cooling circuit against corrosion when the machine has already been in operation and is then placed in storage or put out of operation. Also observe the information in the operating instructions supplied by the manufacturer of the cooler.

1. Completely drain the cooling ducts. To be completely certain, use compressed air to clean the cooling water ducts so that they are completely empty.
2. Flush the cooling water ducts with a corrosion-protection emulsion to avoid the buildup of rust.

4.8 Interlock circuit for anti-condensation heating

If the anti-condensation heating is operated while the machine is running, this can increase the temperatures inside the machine.

- Install an interlock circuit that switches off the anti-condensation heating once the main machine is switched on.
- Only switch on the anti-condensation heating after the motor has been switched off. Carefully comply with the data on the anti-condensation heating plate.

See also


Switching on with the anti-condensation heating active (Page 79)

4.9 Interlock circuit for the external fan motor

Interlock circuit for the external fan motor

For machines with external fans, install an interlock circuit that prevents the main machine being switched on if the external fan is not operational.

4.10 Noise emissions

 WARNING
<p>Noise emissions</p> <p>During operation, the machine's noise emission levels can exceed those permitted at the workplace, which can cause hearing damage.</p> <p>Take steps to reduce noise, such as introducing covers and protective insulation or adopting hearing protection measures, so that the machine can be operated safely within your system.</p>


4.11 Voltage and frequency fluctuations during line operation

Unless stated otherwise on the rating plate, the permissible voltage fluctuation is $\pm 10\%$ and the permissible frequency fluctuation is $\pm 2\%$.


The following always applies: Under practical operating conditions, a machine may sometimes have to be operated outside the tolerance limits. Exceptions of this sort should be limited with regard to the values that arise, how often and for how long they occur. Where possible and within a reasonable time take corrective actions such as reducing the power. Such actions can avoid thermal ageing leading to a reduction in the service life of the machine.

NOTICE
<p>Overheating of the winding</p> <p>Exceeding the permissible tolerances for voltage and frequency can lead to an impermissibly high temperature rise in the windings and thus cause long-term damage to the machine.</p>

4.12 Rotational speed limit values

 WARNING
<p>Vibrations due to resonance</p> <p>At over-critical speeds, machines encounter resonance within certain speed ranges. Such vibrations can reach impermissibly high levels. This can result in death, serious injury, or material damage.</p> <ul style="list-style-type: none"> • The controller must ensure that those speed ranges are blocked when the converter is in operation. Refer to the "Electrical Data" section in the appendix for details of the blocked speed ranges. • The blocked speed ranges must be run through rapidly.

4.14 Torsional loading of the shaft assembly due to faults in the electrical supply


 WARNING
Excessively high speeds
Excessive rotational speed can lead to serious damage to the machine. This can result in death, serious injury, or material damage.
<ul style="list-style-type: none">• Avoid operation above the permissible speed by using the appropriate control function.• Observe the speeds stamped on the rating plate and specified in Chapter "Electrical data" in the appendix.

4.13 System-inherent frequencies

NOTICE
System resonances
Excessive vibrations and system resonances can damage the machine set.
<ul style="list-style-type: none">• Configure and match the system consisting of the foundation and machine set in such a way that no system resonances can arise and result in the permissible vibration levels being exceeded.• The vibration limit values according to DIN ISO 10816-3 must not be exceeded.

4.14 Torsional loading of the shaft assembly due to faults in the electrical supply

In the event of faults in the electrical supply, such as e.g. line switching operations with a residual field or short circuit at the terminals, excessive air gap torques can occur, which can lead to additional torsional loads on the drive train.

 WARNING
Serious damage to the machine
If the configuration does not correctly recognize the mechanical torsional loadings of the shaft assembly, this can lead to serious damage to the machine. This can result in death, serious injury or material damage.
When planning the system, make due allowance for the maximum air gap torques that can occur. This data can be found in the "Electrical Data" in the appendix, in the "Transient Torques" data sheet, or by inquiring at the Service Center.

Note

The system planner is responsible for the complete shaft train.

See also

Technical data and drawings (Page 119)

4.15 Transport and storage

When carrying out any work on the machine, observe the general safety instructions and the specifications contained in EN 50110-1 regarding safe operation of electrical equipment.

4.15.1 Transport markings

The packing differs depending on the transport type and size. If not otherwise contractually agreed, the packaging corresponds to the packing guidelines for International Standards for Phytosanitary Measures (ISPM).

Note the symbols which appear on the packing. These have the following meanings:



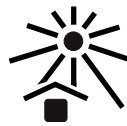
Top



Fragile material



Keep dry



Keep cool



Center of gravity



Do not use hand hook



Attach here

4.15.2 Checking the delivery

The components are assembled on an individual basis. When you take receipt of the delivery, please check immediately whether the scope of the delivery matches up with the accompanying documents. No claims relating to defects/items missing from the delivery will be accepted if they are submitted at a later date.

- Report any apparent transport damage to the delivery agent immediately.
- Immediately report any apparent defects/missing components to your contact partner.

These Operating Instructions are part of the scope of delivery; keep them in a location where they can be easily accessed.

4.15.3 Attaching the rotor locking device


NOTICE
Bearing damage caused by vibration
If storage conditions are inappropriate there is a risk of bearing seizure damage. This can result in material damage, such as damage to bearings caused by vibration.
<ul style="list-style-type: none">• On machines that have been supplied with a rotor shipping brace, secure the rotor as per the notes on transportation.• Protect the machine against strong radial vibrations, since the rotor shipping brace might not absorb these completely.

NOTICE
Bearing damage when being transported
If the customer has already mounted parts, for example coupling, belt pulley, etc., the bearing can be damaged during transport.
<ul style="list-style-type: none">• In this case, make sure that the customer uses a rotor shipping brace.

4.15.4 Checking the load handling attachments

Inspect the load handling attachments such as the load trestles, lifting eyes and ring bolts and also the lifting gear, before lifting the machine:

- Inspect the load handling attachments on the machine for possible damage. Replace any load suspension equipment that is found to be damaged.
- Before use, check that the load suspension equipment is correctly attached.
- When lifting the machine, use only approved and undamaged lifting gear of sufficient rated capacity. Check the lifting gear prior to its use.

 WARNING
The machine can be dropped
If the load handling attachments and lifting gear are damaged or not correctly secured, the machine may be dropped during lifting. This can result in death, serious injury or material damage. Inspect the load handling attachments and lifting gear before use.

 **WARNING**

Falling down of the machine

The lifting lugs on the machine are designed only for the weight of the machine. If a machine set is lifted and transported on a single machine, this can lead to mechanical failure of the lifting lug. The machine or machine set may fall. This can result in death, serious injury or material damage.

- Do not lift machine sets by attaching lifting tackle to the individual machines.
- Use only the equipment provided, e.g. the openings or lugs on the base plates, for transporting machine sets. Note the maximum capacity of the lifting lug.

Note

Place the machine in a secure and raised position

In order to obtain easy and safe access to the underside of the machine, place it in a secure and raised position.

 **DANGER**

Standing under suspended loads

If the lifting gear or load handling attachments were to fail, the machine could fall. This can result in death, serious injury or material damage.

Never remain under or in the immediate vicinity of the machine when it is raised.

Note

Store the rotor locking device

Be sure to store the rotor locking device. It must be remounted for possible disassembly and transport.

Anti-freeze protection

When supplied, the machine is not filled with cooling water, so that there is no risk of frost damage.

Protecting the cooling circuit against corrosion

You protect the cooling circuit against corrosion when the machine has already been in operation and is then placed in storage or put out of operation. Also observe the information in the operating instructions supplied by the manufacturer of the cooler.

1. Completely drain the cooling ducts. To be completely certain, use compressed air to clean the cooling water ducts so that they are completely empty.
2. Flush the cooling water ducts with a corrosion-protection emulsion to avoid the buildup of rust.

4.15.5 Storage for up to two years

4.15.5.1 Storage conditions

- Store the machines in a dry, dust-free room where the temperature is controlled. Special packing is therefore not necessary. In all other cases, pack the machines in a plastic film with a substance that absorbs moisture, e.g. Branogel, or in hermetically sealed welded foil. Use a protective cover to protect against sun and rain.
- Store the machines only in vibration-free rooms in order to avoid consequential damage to the bearings due to vibration at standstill.
- For machines with closed condensation water drain holes, check whether there is any condensation and if so, drain it. Then reseal the drain holes.

4.15.5.2 Storing machines with water cooling down to -20° C

If a water-cooled machine is stored at temperatures down to -20 °C, then also please note the following:

1. Completely drain the coolers.
2. Completely dry the coolers with warm air up to a max. 60 °C.
3. After drying, seal off the coolers.
4. Store machines with coolers in a dry and dust-free room.

4.15.5.3 Commissioning

- Remove the moisture-absorbing substance, such as Branogel, from the terminal boxes before commissioning.

See also

Commissioning after storage (Page 38)

4.15.6 Storage for between two and four years

If machines are to be stored for between 2 and 4 years, then also observe the following:

When ordering, the manufacturer must know the storage time.

4.15.6.1 Grease caps

Grease caps must be available at the shaft outlet and at the terminal box cover. Do not rotate the machine shaft before commissioning as the protective grease coating will be destroyed. If rotating parts have to be turned, then apply a new protective coating of grease.

4.15.6.2 Commissioning

- Remove the moisture-absorbing substance, such as Branogel, from the terminal boxes before commissioning.

See also

Commissioning after storage (Page 38)

4.15.7 Storage at low temperatures

4.15.7.1 Storing machines at temperatures down to -50° C

If machines are stored at temperatures of down to -50° C, then also take into account the following:

- The normal roller bearing grease of machines is suitable for operating temperatures of between -30 °C and +130° C. Temperatures down to -50° C are harmless for the roller bearing grease if the machine is non operational or is in storage.
For operation at -50 °C, the bearings have a special grease, e.g. Aeroshell Grease 7.
- Machines with regreasing system must be regreased when commissioning. Double the amount of grease that is specified on the lubricant plate.

4.15.7.2 Regreasing system

- Machines with regreasing system must be regreased when commissioning. Double the amount of grease that is specified on the lubricant plate.

4.15.8 Machines that are mounted together with the driven machine and transported

4.15.8.1 Storing machines together with the driven machine

- Before mounting the machines, grease the free parts of the shaft extension, as well as all other bare metal parts, such as mounting foot surfaces, flange surfaces, terminal box and cover contact surfaces. Attach caps filled with roller bearing grease to the shaft output gland to provide protection against dust and humidity.
- Fill the terminal boxes of the machines with a substance that will absorb moisture, e.g. Branogel.
- Store the machines in a dry, dust-free room where the temperature is controlled.

See also

Storage conditions (Page 36)

4.15.8.2 Commissioning

- Remove the moisture-absorbing substance, such as Branogel, from the terminal boxes before commissioning.

See also

Commissioning after storage (Page 38)

4.15.9 Storage outdoors

If the machine is stored outdoors, then the following should additionally be observed:

- Provide protective cover against the effects of sun and rain. Air must freely circulate to avoid condensation forming.
- Every two months check the following:
 - Free parts of the shaft extension and other bare metal parts, e.g. mounting foot surfaces or the flange faces, terminal box and cover contact surfaces must be greased.
 - Caps filled with grease attached to the shaft output gland to provide protection against the ingress of dust and moisture are still effective.

4.15.10 Commissioning after storage

4.15.10.1 Insulation resistance and polarization index

Measuring the insulation resistance and polarization index (PI) provides information on the condition of the machine. It is therefore important to check the insulation resistance and the polarization index at the following times:

- Before starting up a machine for the first time
- After an extended period in storage or downtime
- Within the scope of maintenance work

The following information is provided regarding the state of the winding insulation:

- Is the winding head insulation conductively contaminated?
- Has the winding insulation absorbed moisture?

As such, you can determine whether the machine needs commissioning or any necessary measures such as cleaning and/or drying the winding:

- Can the machine be put into operation?
- Must the windings be cleaned or dried?

Detailed information on testing and the limit values can be found here:

"Testing the insulation resistance and polarization index"

4.15.10.2 Lubricating the roller bearings

If you correctly store the machine for a longer period of time, it can be assumed that within a period of two years, the grease in the bearings will not deteriorate.

- For motors with thermal class 155, for normal ambient temperatures, use a lithium-soap roller bearing grease with a melting point of at least 180° C.
- For machines with thermal class 180, and for certain special machines, use the special grease specified on the machine lubricant plate.

4.15.10.3 Regreasing roller bearings after storage periods of up to two years

- For machines with regreasing systems, briefly lubricate both bearings after commissioning with the machine running as a precautionary measure.
- Grease type, grease quantity and relubrication intervals for the regreasing system are stamped on a supplementary plate attached to the machine.

4.15.10.4 Regreasing roller bearings after storage periods of between two and four years

- For machines with regreasing system, lubricate machines immediately after commissioning while the machine is running with approximately twice the grease quantity. This causes the old grease to be spun out.
- Then regrease the bearings with the amount of bearing grease specified on the lubricant plate.

Note

Increased bearing noise

Increased bearing noise can occur while the bearings are being run in. The bearing noise is not dangerous, if the operating temperature has not yet been reached and the noise is caused by the viscosity and the dynamic viscosity of the bearing grease.

4.15.10.5 Releasing the rotor shipping brace before commissioning

If one is being used, release the rotor shipping brace before commissioning.

4.16 Converter operation

4.16.1 Reducing bearing currents when operated with a converter

Taking the following actions will reduce the bearing currents:

- Ensure that the contacts are established over a large area. Solid copper cables are not suitable for high frequency grounding because of the skin effect.

Equipotential bonding conductors:

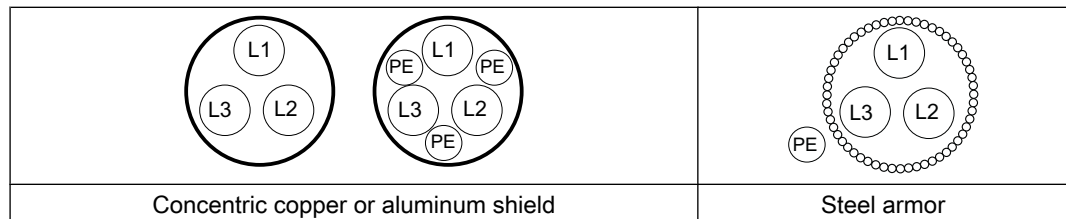
Use equipotential bonding conductors:

- Between motor and driven machine
- Between motor and converter
- Between the terminal box and the RF grounding point at the motor enclosure.

Selecting and connecting the cable:

As far as possible, use symmetrically arranged, shielded connection cables. The cable shielding, made up of as many strands as possible, must have good electrical conductivity. Braided shields made of copper or aluminum are very suitable.

- The shield is connected at both ends, at the motor and converter.
- To ensure good discharging of high-frequency currents, provide contacting over a large surface area:
 - as contact established through 360° at the converter
 - at the motor, for instance with EMC glands at the cable entries
- If the cable shield is connected as described, then it ensures the specified equipotential bonding between the motor enclosure and converter. A separate RF equipotential bonding conductor is then not necessary.



- If the cable shield is not connected due to special secondary conditions, or not adequately connected, then the specified equipotential bonding is not provided. In this particular case, use a separate RF equipotential bonding conductor:
 - Between the motor enclosure and protective ground rail of the converter.
 - Between motor enclosure and driven machine
 - Use braided flat copper straps or high-frequency cables with finely-stranded conductors for the separate RF equipotential bonding cable. Solid copper cables are not suitable for high frequency grounding because of the skin effect.
 - Ensure that the contacts are established over a large area.

Overall system design

To specifically reduce bearing currents, you must consider the system as a whole, which comprises the motor, converter, and driven machine. The following measures support you when reducing bearing currents and help to avoid damage:

- In the overall system, set up a properly meshed grounding system with low impedance.
- Use the common-mode filter (damping cores) at the converter output. The Siemens sales representative is responsible for selection and dimensioning.
- Limit the rise in voltage by using output filters. Output filters dampen the harmonic content in the output voltage.

Note

Converter documentation

The operating instructions for the converter are not part of this documentation. Refer also to the configuration information for the converter.

 WARNING
--

Dangerous voltage via the converter
--

As long as the feeding converter is switched on, or the DC link of the converter is not discharged, there can be a voltage at the motor terminals even when the rotor is not moving. The voltage is up to 1000 V, depending on the converter type.
--

Ensure that the five safety rules are followed before working on the motor.

Reducing bearing currents

Taking the following actions will reduce the bearing currents:

- Grounding: In addition to grounding the machines via the solid protective ground conductor, supplement the high frequency grounding using braided flat copper straps or high frequency stranded conductors. Ensure that the contacts cover a large area. Solid copper cables are not suitable for high frequency grounding because of the skin effect. Use equipotential bonding conductors between the motor and the driven machine and motor and converter.
- Selecting and connecting the cable: As far as possible, use symmetrically arranged, shielded connection cables with a common outer shield to improve the EMC characteristics. The cable shielding, made up of as many strands as possible, must have good electrical conductivity. Braided shields made of copper or aluminum are very suitable.
 - The shield must be connected at both ends to the motor and the converter; unshielded cable ends must be kept as short as possible.
 - To ensure good discharging of high-frequency currents, provide contacting over a large surface area: with 360° contacting at the converter, at the motor for instance with EMC screw fastenings at the cable entries.

Measures to further reduce bearing currents

To specifically reduce and prevent damage caused by bearing currents, you must consider the system as a whole, which comprises the motor, converter, and driven machine. The following precautions help to reduce bearing currents:

- Setting up a properly interconnected grounding system in the system as a whole, with low impedance for high-frequency currents
- Use iron cores mounted above the motor connecting cable at the converter output. The iron cores reduce the common-mode components. The sales representative is responsible for selection and dimensioning.
- Limit the voltage rate of rise by using an output filter to dampen harmonic components in the output voltage

Note

Configuration information

Also observe the configuration information of the converter being used.

Assembly

When carrying out any work on the machine, observe the general safety instructions and the specifications contained in EN 50110-1 regarding safe operation of electrical equipment.

See also

Safety information (Page 13)

5.1 Conformity

Note

Loss of conformity with European directives

In the delivery state, the machine corresponds to the requirements of the European directives. Unauthorized changes or modifications to the machine lead to the loss of conformity with European directives and the loss of warranty.

5.2 Preparations for installation

5.2.1 Requirements for installation

The following requirements must be satisfied prior to starting installation work:

- Staff have access to the operating and installation instructions.
- The machine is unpacked and ready for mounting at the installation location.

Note

Measure the insulation resistance of the winding before starting installation work

Wherever possible, measure the insulation resistance of the winding before starting installation work. If the insulation resistance lies below the specified value, take appropriate remedial measures. These remedial measures may necessitate the machine being removed again and transported.

NOTICE

High temperatures

The motor components get very hot during operation. High temperatures can damage mounting parts such as the cable insulation.

- Temperature-sensitive parts such as normal cables or electronic components must not rest against or be attached to mounted machine parts.
- Only use heat-resistant mounting parts. The connecting cables and cable entries must be suitable for the ambient temperature.

5.2.2 Safety information – do not lift below -55°C

 **WARNING**

Lifting at temperatures below -55°C

The welding material of the lifting posts or the support ribs themselves can become brittle at temperatures below -55°C. When lifting and transporting, the support ribs can tear off and the motor might be dropped.

This can result in death, serious injury or material damage.

Only lift the machine using the support ribs at temperatures above -55° C. Alternatively, warm up the support ribs or lift the machine in a different way.

5.2.3 Preparing the assembly area

1. Prepare a suitable assembly area (e.g. assembly stands). Make sure that the assembly area has sufficient clearance from the floor for the DE shaft end. The necessary data is provided in the machine dimension drawing.
2. Using the shipping papers, check whether all of the motor components are available for assembly.

5.2.4 Prepare the mating faces for wall mounting

- Ensure that the wall surface is flat and free of contaminations.
- Check the dimensions of the mounting-foot holes.
- Support the machine from below, e.g. using a wall bracket or by bolting it.

5.3 Lift the machine to where it will be installed, and position it

5.3.1 Preconditions for correct alignment and secure attachment

Detailed specialist knowledge of the following measures is required in order to correctly align and securely fit the equipment.


- Preparing the foundation
- Selecting and mounting the coupling
- Measuring the concentricity and axial eccentricity tolerances
- Positioning the machine

If you are not familiar with the prescribed measures and procedures, then you can make use of the services offered by the local Service Center.

5.3.2 Checking the load handling attachments

Inspect the load handling attachments such as the load trestles, lifting eyes and ring bolts and also the lifting gear, before lifting the machine:

- Inspect the load handling attachments on the machine for possible damage. Replace any load suspension equipment that is found to be damaged.
- Before use, check that the load suspension equipment is correctly attached.
- When lifting the machine, use only approved and undamaged lifting gear of sufficient rated capacity. Check the lifting gear prior to its use.


 WARNING
The machine can be dropped
If the load handling attachments and lifting gear are damaged or not correctly secured, the machine may be dropped during lifting. This can result in death, serious injury or material damage. Inspect the load handling attachments and lifting gear before use.


5.3.3 Lifting and transportation

- Persons driving cranes and fork lift trucks must hold appropriate qualifications.
- When lifting the machine, use only approved and undamaged sling guides and spreaders of sufficient rated capacity. Check these before using them. The weight of the machine is stated on the rating plate.

5.3 Lift the machine to where it will be installed, and position it

- When lifting the machine, refer to the information on the lifting plate:
 - Comply with the specified spreading angles.
 - Lift the machine without jerking it.
- When lifting, use only the load handling attachments on the stator casing, such as lifting eyes or eye bolts.


 WARNING
Transporting or lifting the machine
The machine or the machine set may be transported and lifted only using the load handling attachments.
Otherwise, death, serious injury, or material damage may result.
1. Always use the load suspension device provided on the stator frame to lift the motor.
2. Use suitable rope guidance or spreading devices. The weight of the machine is stated on the rating plate.

 WARNING
Center of gravity when transporting or lifting the motor
If the center of gravity of a load is not located centrally between the attachment points, the motor can tip over or slip out of the lifting gear when it is being transported or lifted.
This can result in death, serious injury, or material damage.
1. Always take account of the center of gravity when transporting or lifting the machine. The machine's center of gravity is indicated in the relevant dimension diagram.
2. Observe the handling instructions on the motor when transporting it. If the center of gravity is not located centrally between the attachment points, then position the hoisting hook above it.
3. Be aware of the possibility of different loads on the sling ropes or lifting straps and the carrying capacity of the lifting equipment.

Note

Place the machine in a secure and raised position

In order to obtain easy and safe access to the underside of the machine, place it in a secure and raised position.

 DANGER
Standing under suspended loads
If the lifting gear or load handling attachments were to fail, the machine could fall. This can result in death, serious injury or material damage.
Never remain under or in the immediate vicinity of the machine when it is raised.

5.3.4 Putting the machine down

Requirements

The following preconditions must be satisfied before setting down the machine at the installation location:

- The mating faces must be clean.
- The anti-corrosion protection paint has been removed from the mating faces, such as the machine mounting feet, flange, ...
- There is no condensation present within the machine.

Setting down the machine

- Set down the machine slowly and carefully at the installation location to avoid any impact.

See also

Removing anti-corrosion protection (Page 48)

Requirement

The transmission element such as a coupling half has already been pulled on.

Roughly aligning the machine

- For horizontal positioning, push the motor sideways across the foundation. When doing so, ensure that the axial position is maintained.

5.3.5 Turning a machine upright or laying it on its side

Lifting beams must always be used when lifting and the machine or laying it on its side. One of the beams must be free to rotate.

- Persons driving cranes must hold appropriate qualifications.
- When lifting the machine, use only approved and undamaged lifting beams of sufficient rated capacity. Check these before using them. The weight of the machine is stated on the rating plate.
- When setting the machine upright, refer to the information on the lifting plate:
 - Comply with the specified spreading angles.
 - Lift the machine without jerking it.

Procedure

1. Lift the machine using two separate beams and crane trolleys ①.
2. Leave the drive-end beam in place and continue to lift the rotatable non-drive-end beam until the machine reaches its center of gravity and the drive-end beam is unloaded ②.
3. Remove the drive-end lifting beam. Rotate the machine through 180°. When doing this, take care not to damage any attached parts.
4. Place the free beam on the lifting eyes provided and lift the machine using this beam until it is perpendicular to the base ③.

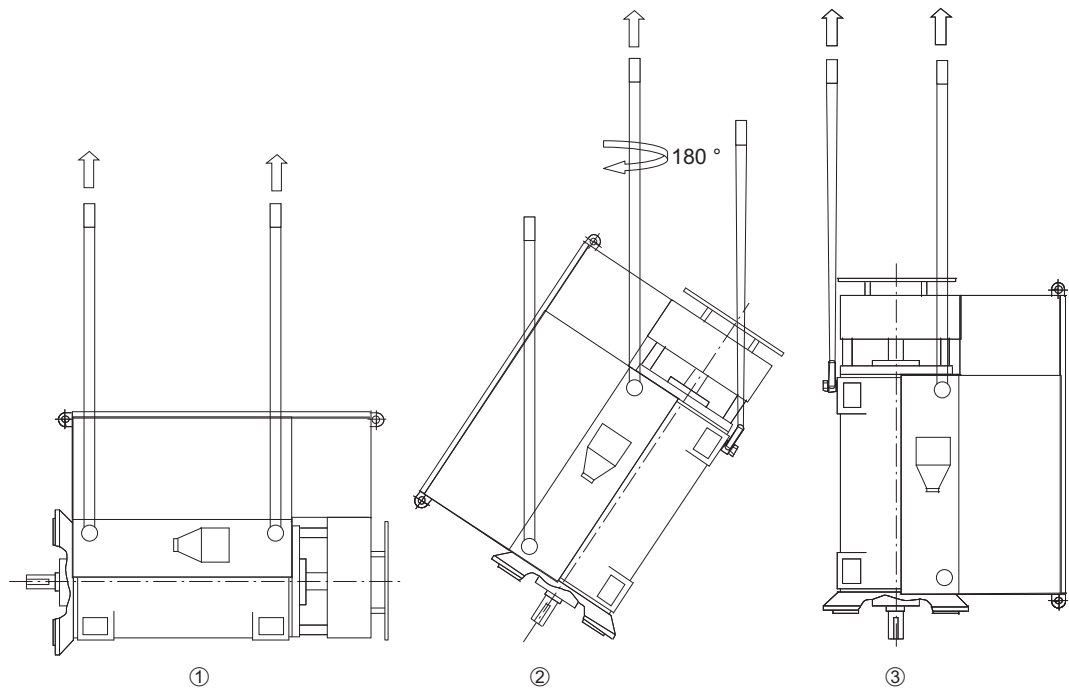


Image 5-1 Erecting the motor

Turning the machine on to its side

To lay the machine on its side, proceed in the reverse order.

5.3.6 Removing anti-corrosion protection

Machined, bare metal surfaces of machine parts and small components such as screws, bolts, wedges, feather keys, and dowel pins, are treated with an anti-corrosion agent.

Carefully remove the anti-corrosion agent and immediately start the installation work.

Bright surfaces on machine parts

- Use petroleum, petroleum ether, or a similar solvent or detergent to remove the anti-corrosion coating from the machined surfaces of machine parts and from small components.

NOTICE
Paintwork damage Make sure that the detergent or solvent does not come into contact with any painted surfaces, as this could damage the lacquer.

- Use a suitable solvent to soften thick layers of anti-corrosion agent. Then push off the softened layers using a piece of hardwood (approximately 10 x 10 x 1 cm). Do not sand the protective coating down or scrape it off.

NOTICE
Do not use metal tools. Do not use metal objects such as scrapers, spatulas, or plates to remove the anti-corrosion protection, as this could damage the surfaces of the machine parts.

- Lightly oil the depreserved surfaces.

Thread and fastening parts

- Remove the anti-corrosion protection from bolts and tapered pins.
- Use the appropriate tap or cutting die to shave the tapped holes of machine parts and threads of screws, etc. See the drawings for the relevant male and female thread dimensions.
- Use dry compressed air to purge the shaved tapped holes.
- Lightly oil the depreserved threads.

Burrs and pressure marks

- Check the machine parts, as well as fastening and fixing elements, for burrs or pressure marks. Use a smoothing file to carefully remove any such burrs/pressure marks.
- Only whetstones may be used to smooth finished surfaces.

5.3.7 Draining condensate

Under the following conditions it is possible that condensate may accumulate in the machine:

- Wide fluctuations in the ambient temperature, such as direct sunshine combined with high atmospheric humidity
- Intermittent operation or load fluctuations during operation

NOTICE
Damage due to condensate
If the stator winding is damp, its insulation resistance will be reduced. This can result in voltage flashovers that can seriously damage the windings. Condensate can also cause rust to form in the machine.
Ensure that condensate can drain away.

Ensure that condensate can drain away

In the end shields or in the casing at the drive end and non-drive end, water drainage holes are situated lower down and opposite the regreasing devices. They are sealed with screw plugs and retaining washers.

- Regularly remove the screw plugs to allow the condensate to drain away.
- Then re-fit the screw plugs and lock washers, so that the machine's degree of protection is ensured.

Drainage plugs which allow the water to drain away automatically can also be fitted. Depending on the type of installation, the water drainage holes are located at the bottom.

- Regularly check the drainage plugs. The water must be able to drain away freely.

NOTICE
The degree of protection is reduced
The degree of protection of the machine is nominally reduced to IP44 when a plug or screw is removed.

5.4 Installing the machine

5.4.1 Preconditions for smooth, vibration-free operation

Preconditions for smooth, vibration-free operation:

- Stable foundation design
- Precise alignment of the machine

- Correct balancing of parts to be fitted to the shaft end.
- Maintaining the vibration velocity according to ISO 10816-3

5.4.2 Aligning the machine to the driven machine and mounting

5.4.2.1 Selecting bolts

- Unless specified otherwise, use fixing screws with at least strength class 8.8 to ISO 898-1 to ensure that the machine is securely mounted and to transmit the torque-generated forces.
- When selecting the bolts and the design of the foundation, take into account the maximum forces occurring in the case of a fault such as short circuit or system transfers in phase opposition, etc.
Request the force values for the foundation from the Service Center if required.

5.4.2.2 Horizontal types of construction with mounting feet

1. Refer to any instructions for aligning the driven machine and those of the coupling manufacturer.
2. Align the machines with coupling output to the driven machine in such a manner that the center lines of the shafts are parallel with no offset. This ensures that no additional forces affect their bearings during operation.
3. For the vertical positioning ($x \rightarrow 0$) place thin shims under the machine feet. The number of shims should be kept as low as possible, i.e. stack as few as possible. This also prevents the machine being subjected to any stress/distortion. If available, use the existing tapped holes for the forcing-off bolts to somewhat raise the machine.
4. When positioning the machine, ensure that a uniform axial gap ($y \rightarrow 0$) is maintained around the coupling.
5. Fix the machine to the foundation. The choice of fixing elements depends on the foundation and is the plant operator's responsibility.

Note

Machine expansion

When aligning, make allowance for the thermal expansion of the machine when the temperature increases.

5.4.2.3 Vertical types of construction with flange

The standard flange is provided with a centering. The choice of fit for the mating flange on the driven machine is the system manufacturer's or the plant operator's responsibility.

Note

If the machine is not fitted with a standard flange, align the machine to suit the driven machine.

Procedure

The machine axis must be vertical when it is lifted and the flange must be parallel to the mating flange, so as to avoid seizing and stressing. Otherwise damage to the centering will result.

1. Grease the centering flange with assembly paste to make the process easier.
2. Screw in two studs into tapped holes on opposite sides of the driven machine flange. The studs act as positioning aids.
3. Lower the machine slowly toward the driven machine and into the centering, so that the flanges do not quite touch. Lowering too quickly risks damaging the centering.
4. If necessary, rotate the machine into the right position so that the clearance holes in the flange are central to the tapped holes.
5. Lower the machine completely onto the mating flange so that it is fully in contact; then remove the studs.
6. Fix the machine using the flange fixing bolts.

NOTICE

Removing the rotor shipping brace in the horizontal position.
--

Dismantling the rotor shipping brace when the machine is in a horizontal position could damage the bearings.
--

- | |
|--|
| <ul style="list-style-type: none">• Only remove the rotor shipping brace when the machine is in a vertical position. |
|--|

NOTICE

Turning the motor over without rotor shipping brace
--

Failure to fit the rotor shipping brace can result in damage to the bearings while the machine is being turned onto its side.

- | |
|--|
| <ul style="list-style-type: none">• Fix the rotor in place before you turn the machine into a horizontal position. |
|--|

5.4.3 Removing the rotor shipping brace

If a rotor shipping brace is attached to the machine, remove it at the last possible moment, for example, when you are ready to push on the output or drive element.

Note

Store the rotor locking device

Be sure to store the rotor locking device. It must be remounted for possible disassembly and transport.

Details about the alignment accuracy can be found in the Section "Information about the machine dimension drawing".

5.4.4 Recommended alignment accuracy

The alignment accuracy required depends essentially on the configuration of the overall machine train. Observe the required alignment accuracy of the coupling manufacturer in all cases when aligning the machine.

Table 5-1 Recommended alignment accuracy

Speed [rpm]	Parallel offset [mm]	Angular offset [mm per 100 mm coupling diameter]
750	0.09	0.09
1500	0.06	0.05
3000	0.03	0.025

To avoid stressing the motor feet, the overall flatness of the installation surfaces must satisfy the values in the following table:

Table 5-2 Overall flatness of the installation surfaces

Frame size	Overall flatness of the installation surfaces
≤ 080	0.1 mm
090 - 355	0.2 mm
≥ 400	0.3 mm

If shims are necessary for height adjustment and to avoid stresses, make them out of adequately sized pieces of flat rolled strip. Complete balancing of the rotor together with the transmission element may be found necessary.

5.4.5 Mounting the output elements

Balance quality

The rotor has a squirrel cage rotor made of die-cast aluminum or a brazed copper rotor. The rotor is dynamically balanced with half feather key as standard. With a different balancing status the marking for the corresponding balancing status is made using an adhesive sticker.

Pulling on the power output elements

- Prerequisites:
 - The coupling and/or the output element must be appropriately dimensioned for the operating case at hand. The balance quality must satisfy the following requirements.
 - Comply with the coupling manufacturer's instructions.
 - Make sure that the balancing type of the output element correctly matches the type of balance of the rotor.
 - Use only ready drilled and balanced output elements. Check the hole diameters and the balancing status before pulling them on. Thoroughly clean the shaft extension.
- Pulling on:
 - Warm up the output elements to expand them before pulling them on. Select the temperature difference for the heating process to suit the coupling diameter, fit and material. See the coupling manufacturer's instructions.
 - Power output elements may only be pulled on or pulled off with the correct equipment. The output element must be pulled on in one continuous operation via the front thread holes in the shaft or pulled on by hand.
 - Do not strike it with a hammer, as this would damage the bearings.

Shaft extensions with feather key

To maintain the balancing quality, you have the following options:

- If the output element is shorter than the feather key with balancing type "H", then you must machine off the section of feather key protruding from the shaft contour and output element in order to maintain the balance quality.
- The feather key must be shortened if the coupling hub is shorter than the feather key.
- The center of gravity of the coupling half should be within the length of the shaft end.
- The coupling used must be prepared for system balancing. The number of poles of the machine is specified on the rating plate (in the designation of the machine type).

 **WARNING**

The feather key can fall out

The feather keys are only locked against falling out during shipping. If a machine with two shaft extensions does not have an output element on one shaft extension, the feather key can fall out during operation.

Death or serious injury can result.

- Do not operate the machine unless the output elements have been pulled on.
- On shaft extensions without output element, make sure that the feather key cannot fall out and shorten it by approximately half for balance type "H".

5.4.6 Axial and radial forces

You can obtain the permissible values for axial and radial forces by contacting the Siemens Service Center or referring to the machine catalog.

NOTICE**Damage to bearings or the shaft**

Large output masses and their centers of gravity outside the shaft extensions can lead to resonance in operation. This can result in damage to the bearings and shaft.

Ensure that the permissible loads for the forces on the shaft extension are adhered to in accordance with the catalog data or configuration data.

5.5 Connecting the supply lines

Seen from the shaft extension, connection of the water is possible from the right and from the left.

NOTICE**Cooling water connection pipe**

If the cooling water cannot flow freely, the machine will not be cooled properly. The machine will overheat, which could result in material damage or even a write-off.

- Remove the flange cover plate.
- Insert the gaskets correctly.

1. For the pipes, select materials with the required chemical composition in accordance with the water conditions. Also consider the pressure load and compatibility with the materials from which the cooler is made.
2. Route and support the water pipes so that the connecting flanges are not exposed to excessive stress or strain or vibration loads.
3. Rinse out the water circuit before you connect the cooling water supply to the motor. This removes deposits and foreign bodies so that they cannot make their way into the cooling circuit.
4. Should there be a possibility of the cooling water containing dirt and foreign bodies, install suitable filters in the cooling-water feed pipe.
5. Connect the cooling circuit to the machine.

Filling the cooling circuit

1. Fill the cooling circuit with water until the air is completely forced out of the cooling circuit.
2. Perform a pressure check to see whether the cooling water supply is airtight. In doing so, do not exceed the maximum test pressure. The maximum permissible pressure can be found on the rating plate.

If you do not then put the machine into operation, you must implement the measures necessary during stoppages.

NOTICE
Bleed air from the cooling ducts
If the cooling ducts are not completely filled with water, sufficient machine cooling cannot be guaranteed and the machine may overheat.
Ensure that the air is bled from the cooling ducts during filling and that the cooling ducts are completely filled with water.

Electrical connection

When carrying out any work on the machine, observe the general safety instructions and the specifications contained in EN 50110-1 regarding safe operation of electrical equipment.

See also

Safety information (Page 13)

Note

Service Center

If you require support when electrically connecting up the machine, please contact the Service Center.

6.1 Safety instructions relating to the electrical connection

NOTICE
<p>Connected parts can loosen</p> <p>If you use fixing elements made from the wrong material or apply the wrong tightening torque, this could impair current transfer or cause connecting parts to become loose. This could result in material damage to the machine or even in total failure, which could in turn lead indirectly to material damage to the system.</p> <ul style="list-style-type: none">• Tighten the screwed connections to the specified tightening torques.• Observe any specifications regarding the materials from which fixing elements must be made.• When performing servicing, check the fastenings.

6.2 Preparation

6.2.1 Terminal box with cable entry plate

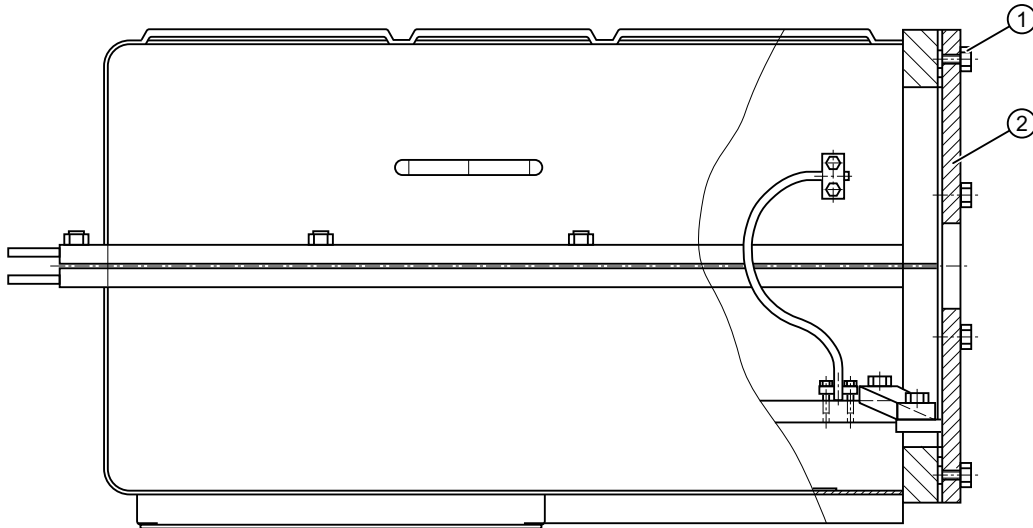



Image 6-1 Disassembly / assembly of terminal box

Opening the terminal box:

1. Unscrew the fixing screws ① and remove the ① cable entry plate ①. If present, unscrew the cable entry plate ① grounding strap from the terminal box base.
2. To protect the seals, position the cable entry plate ① a short distance away from the terminal box.
3. Unscrew the terminal box cover fixing screws ① and open the cover. For versions without hinges, lift the cover of the terminal box off.

Electrical connection and final assembly:

1. Screw the cable gland(s) into the cable entry plate ② and push the cable entry plate ② onto the connecting cables. Connect the cables to the terminals in accordance with all applicable guidelines.
2. To protect the seals, position the cable entry plate ② a short distance away from the terminal box. Then, if required, connect the grounding strap to the cable entry plate ②.
3. After making the electrical connections, close the cover of the terminal box. For versions without hinges, place the terminal box cover onto the terminal box base. The seal between the terminal box base and cover must be flush with the cable entry plate in order to ensure the required degree of protection.
4. Carefully push the cable entry plate ② toward the terminal box. Screw the terminal box base and cover together with the fixing screws ①. The terminal box base and cover must both be in contact with the cable entry plate ② to ensure the required degree of protection.
5. Screw the terminal box cover on. Ensure that the terminal box seals are intact and undamaged.

<p> DANGER</p> <p>Danger due to damaged seals</p> <p>Damaged seals can result in the failure of the explosion protection.</p> <p>This can cause faults which can result in eventual or immediate death, serious injury or material damage.</p> <p>Only operate the machine with intact, undamaged seals.</p>

6.2.2 Selecting cables

Take the following criteria into account when selecting the connecting cables:

- Rated current
- Rated voltage
- If required, service factor
- System-dependent conditions, such as ambient temperature, routing type, cable cross-section as defined by required length of cable, etc.
- Requirements according to IEC / EN 60204-1
- Requirements according to IEC / EN 60079-14 when used in Zones 1, 2 or 21, 22
- Configuration notes

6.3 Connecting

6.3.1 Connecting the grounding conductor

The grounding conductor cross-section of the machine must be in full conformance with the selection and installation specifications and to IEC/EN 60204-1.

Table 6-1 Determining the cross-section of the grounding conductor

External cable cross-section S	Cross-section of the grounding conductor [mm ²]
$S \leq 16 \text{ mm}^2$	S
$16 \text{ mm}^2 < S \leq 35 \text{ mm}^2$	16 mm ²
$S > 35 \text{ mm}^2$	S/2

A terminal strip for grounding is fitted either on the stator frame or on the flanged endshield, depending on the type of construction. The grounding point is marked.

The terminal strip is suitable for connecting stranded cables with cable lugs or connecting flat straps. In addition, all machines have a PE terminal within the terminal box.

6.3 Connecting

When connecting up the grounding conductor, ensure that the contact surface of the connection is bare and protected against corrosion using a suitable agent, e.g. with acid-free Vaseline.

6.3.2 Circuit diagram in the terminal box cover

Data on the connection and connecting the motor winding can be found in the circuit diagram in the cover of the terminal box.

6.3.3 Terminal designation

According to IEC / EN 60034-8, the following basic definitions apply to the terminal designations for 3-phase machines:

Table 6-2 Terminal designations using the 1U1-1 as an example

1	U	1	-	1	Designation
x					Index for pole assignment for pole-changing machines where applicable. A lower index signifies a lower speed. Special case for split winding.
	x				Phase designation U, V, W
		x			Index for winding start (1) or end (2) or if there is more than one connection per winding
				x	Additional indices for cases in which it is obligatory to connect parallel power feed cables to several terminals with otherwise identical designations

NOTICE
Incorrect direction of rotation
The machine will not be adequately cooled if it is operated other than how it was originally ordered or with the incorrect direction of rotation. This can result in machine damage.
Observe the direction of rotation data on the nameplate.

6.3.4 Connecting the machine for a specific direction of rotation

If the machine has one shaft extension or two shaft extensions with different diameters, the direction of rotation when looking at the front of the single or the thicker shaft extension is defined as follows:

- If you are connecting power supply cords with a phase sequence of L1, L2, L3 at U, V, W, the resulting rotation will be clockwise.
- If you transpose two connections, e.g. L1, L2, L3 at V, U, W, the resulting rotation will be counter-clockwise.

Machines which must run only in one specific direction of rotation are marked with a direction of rotation arrow.

6.3.5 Terminal box

Undrilled entry plate

The number and size of the cable entry tapped holes can be found in the machine dimension drawing.

Please note the following points for explosion-protected machines:

- Replace the cable glands that are not being used by appropriately certified screw plugs.
- If you are using cable glands, use only appropriately certified cable glands with strain relief. Comply with the installation and operation conditions specified in the certificate for these cable glands and check that they have been fully complied with.

Undrilled entry plate

If the entry plate is undrilled, you should match the number and size of the cable glands to the operating conditions. Not applicable for terminal boxes of the Ex d type of protection.

1. Unscrew the cable entry plate.
2. Drill the required number of holes or threads in the required size into the cable entry plate. The thickness of the plate is selected in such a way as to give a sufficient number of turns when the holes are tapped.
Please note that you are responsible for ensuring that the entry plate still has sufficient strength after the holes have been drilled and tapped.
3. Mount the cable entry plate and the cables with the cable glands onto the terminal box.

Inserting the cable into the terminal box

1. Only use cable entries that are suitable for the cable.
2. Only use suitable cable entries and cables for the prevailing ambient temperature.
3. Ensure that the power cables are strain relieved where they enter the terminal box.
4. Carefully connect the cable and ensure a reliable protective conductor connection.
5. Tighten the glands and the elements for the strain relief with the torque specified by the manufacturer.
6. Check the cable glands and cables to ensure that they are correctly sealed and firmly seated.
7. Correctly close and seal threads or holes that are not being used ensuring that the IP degree of protection is maintained. The IP degree of protection is specified on the rating plate.

6.3 Connecting

6.3.6 Minimum air clearances

After proper installation, verify that the minimum air clearances between non-insulated parts are maintained. Be aware of any protruding wire ends.

Table 6-3 Minimum air clearance dependent on rms value of the alternating voltage U_{rms}

Rms value of the alternating voltage V_{rms}	Minimum air clearance
$\leq 500\text{ V}$	8 mm
$\leq 630\text{ V}$	10 mm
$\leq 800\text{ V}$	12 mm
$\leq 1000\text{ V}$	14 mm
$\leq 1250\text{ V}$	18 mm

Values apply at an installation altitude of up to 2000 m.

When determining the required minimum air clearance, the voltage value in the table may be increased by a factor of 1.1, so that the rated input voltage range is taken into account during general use.

6.3.7 Cable ends with wire end sleeves

Preferably use end sleeves instead of soldering cable ends. Before connecting, correctly clamp the end sleeve onto the cable to establish a connection capable of conducting current.



WARNING

Securely and reliably clamping and enclosing the end of the conductor

If the end of the conductor is not correctly enclosed by the end sleeve, but is clamped together with it, then this can lead to overheating. The temperature class of the machine can be exceeded. This can trigger ignition of an explosive mixture. This can result in death, serious injury or material damage.

- Insert only one conductor end into each end sleeve. Attach the end sleeve correctly.

6.3.8 Connection with terminal board

Note that for terminal boards with U-shaped terminal clamps, the conductors to be connected must be placed under the terminal clamps in a U shape. Alternatively, with multi-stranded and finely-stranded conductors, the conductor can be divided evenly (into two parts) and laid in a straight line under the U-shaped terminal clamps.

See sketch!

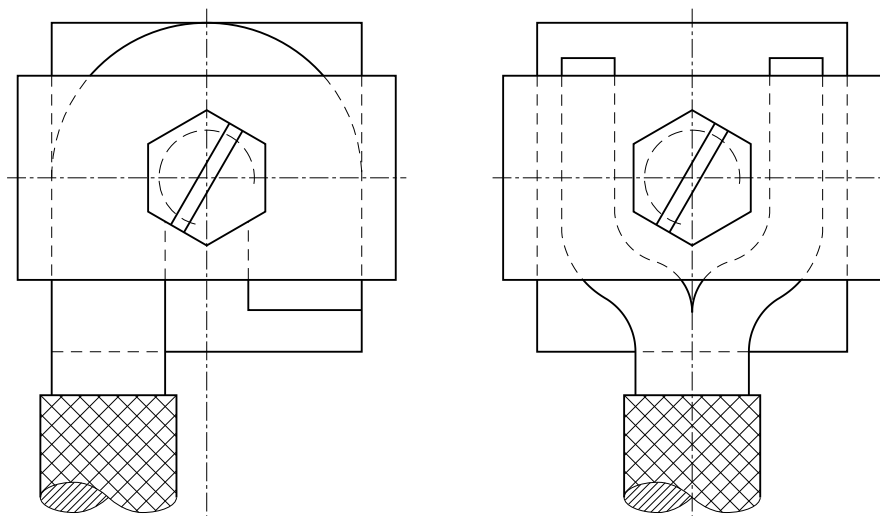


Image 6-2 Example for conductor connection

6.3.9 Connecting aluminum conductors

If you are using aluminum conductors, comply in addition with the following:

- Use only cable lugs that are suitable for connecting aluminum conductors.
- Immediately before inserting the aluminum conductor, remove the oxide layer from the contact areas on the conductor and/or the mating piece, by brushing or filing.
- Then grease the contact areas immediately using neutral vaseline in order to avoid re-oxidation.

NOTICE

Aluminum flow due to contact pressure

Aluminum flows following installation due to the contact pressure. The connection with the clamping nuts can loosen as a result. The contact resistance would increase and the current-carrying impeded; as a consequence the terminal box and the surrounding components could burn. This could result in material damage to the machine or even in total failure, which could in turn lead to indirect material damage to the system.

Retighten the clamping nuts after approximately 24 hours and then again after approximately four weeks. Make sure that the terminals are de-energized before you tighten the nuts.

6.3.10 O-ring seal

If O-ring seals are present, you should check that they are in perfect condition and that the O-ring seals are properly seated in the grooves between the components. Replace any damaged O-ring seals.


6.3 Connecting

O-ring seals can be present on the following components, for instance:

- Tapers
- Cable glands
- Bearing seals
- Bearing plate seals
- Terminal box seals
- Cable glands
- etc.

6.3.11 Performing connection operations

1. Before closing the terminal box, please check that:
 - The electrical connections in the terminal box are tight and in full compliance with the specifications above
 - The motor is connected so that it rotates in the direction specified
 - The inside of the terminal box is clean and free of any cable debris, dirt and foreign bodies.
 - All gaskets and seals are intact
 - The pressure relief device is intact Depending on the type of terminal box being used, the pressure relief device can be implemented either by sealing the slots or by using a pressure relief diaphragm.

 WARNING
Damaged pressure relief device Water and foreign bodies can penetrate the enclosure if the pressure relief device is damaged: The degree of protection of the terminal box is no longer guaranteed, a short-circuit can occur, which can result in death, serious injury or material damage. <ul style="list-style-type: none">• Do not operate the machine with a damaged pressure relief device.• Any damage may only be repaired after prior discussion with the person responsible for the safety of the plant or system and only using original parts.

2. Close the terminal box.
See section "Tightening torques for screw and bolt connections" for the tightening torque of the fixing bolts for the cover.

6.3.12 Internal equipotential bonding

The equipotential bonding between the ground terminal in the terminal box enclosure and the motor frame is established via the terminal box metallic contact faces. The contact faces are protected against corrosion.

The equipotential bonding is achieved by means of a stranded wire. A copper braided strip, a stranded wire or a metal contact is used to ensure potential equalization between the cable entry plate and the terminal box enclosure.

Start-up

When carrying out any work on the machine, observe the general safety instructions and the specifications contained in EN 50110-1 regarding safe operation of electrical equipment.

See also

Safety information (Page 13)

Note

Service Center

Please contact the Service Center (Page 117), if you require commissioning support.

7.1 Checks to be carried out prior to commissioning

Once the system has been correctly installed, you should check the following prior to commissioning:

Note

Checks to be carried out prior to commissioning

The following list of checks to be performed prior to commissioning does not claim to be complete. It may be necessary to perform further checks and tests in accordance with the specific situation on-site.

- The machine is undamaged.
- The machine has been correctly installed and aligned, the transmission elements are correctly balanced and adjusted.
- All fixing screws, connection elements, and electrical connections have been tightened to the specified tightening torques.
- The operating conditions match the data provided in accordance with the technical documentation, such as degree of protection, ambient temperature, etc..
- Moving parts such as the coupling move freely.
- All touch protection measures for moving and live parts have been taken.
- The machine is undamaged.
- The machine has been correctly installed and aligned, the transmission elements are correctly balanced and adjusted.
- All fixing screws, connection elements, and electrical connections have been tightened to the specified tightening torques.

7.1 Checks to be carried out prior to commissioning

- The operating conditions match the data provided in accordance with the technical documentation, such as degree of protection, ambient temperature, etc..
- Moving parts, for example the coupling, move freely.
- All touch protection measures for moving and live parts have been taken.
- The air leakage filters are installed and function correctly.
- The rotor can spin without coming into contact with the stator.
- The bearing insulation is not bridged.
- Appropriately configured control and speed monitoring functions ensure that the the permissible speeds specified on the rating plate cannot be exceeded.
- Any supplementary motor monitoring devices and equipment have been correctly connected and are fully functional.

Electrical connection

- The grounding and equipotential bonding connections have been made correctly.
- The machine is connected so that it rotates in the direction specified.
- Appropriately configured control and speed monitoring functions ensure that the motor cannot exceed the permissible speeds specified in the technical data. For this purpose, compare the data on the rating plate or, if necessary, the system-specific documentation.
- The minimum insulation resistance values are within tolerance.
- Minimum air clearances have been maintained.
- Any supplementary motor monitoring devices and equipment have been correctly connected and are functioning correctly.
- All brakes and backstops are operating correctly.
- At the monitoring devices, the values for "Warning" and "Shutdown" are set.

Converter operation

- If the design of the motor requires connection to a particular converter type, the rating plate will contain corresponding additional information.
- The converter is correctly parameterized. The parameterization data is specified on the rating plate of the machine. Information about the parameters is available in the operating instructions for the converter.
- Any supplementary motor monitoring devices and equipment have been correctly connected and are functioning correctly.
- In continuous operation, the motor cannot exceed the specified upper speed limit n_{\max} or undershoot the lower speed limit n_{\min} .
- The permissible acceleration time to the limit speed n_{\min} depends on the parameter assignment.

Converter operation

- If the design of the motor requires connection to a particular converter type, the rating plate will contain corresponding additional information.
- The converter is correctly parameterized. The parameterization data is specified on the rating plate of the machine. Information about the parameters is available in the operating instructions for the converter.
- Any supplementary motor monitoring devices and equipment have been correctly connected and are functioning correctly.
- In continuous operation, the motor cannot exceed the specified upper speed limit n_{\max} or undershoot the lower speed limit n_{\min} .
The permissible acceleration time to the limit speed n_{\min} depends on the parameter assignment.

7.2 Insulation resistance and polarization index

Measuring the insulation resistance and polarization index (PI) provides information on the condition of the machine. It is therefore important to check the insulation resistance and the polarization index at the following times:

- Before starting up a machine for the first time
- After an extended period in storage or downtime
- Within the scope of maintenance work

The following information is provided regarding the state of the winding insulation:

- Is the winding head insulation conductively contaminated?
- Has the winding insulation absorbed moisture?

As such, you can determine whether the machine needs commissioning or any necessary measures such as cleaning and/or drying the winding:

- Can the machine be put into operation?
- Must the windings be cleaned or dried?

Detailed information on testing and the limit values can be found here:

"Testing the insulation resistance and polarization index"

7.3 Testing the insulation resistance and polarization index



⚠ WARNING

Hazardous voltage at the terminals

During and immediately after measuring the insulation resistance or the polarization index (PI) of the stator winding, hazardous voltages may be present at some of the terminals. Contact with these can result in death, serious injury or material damage.

- If any power cables are connected, check to make sure line supply voltage cannot be delivered.
- Discharge the winding after measurement until the risk is eliminated, e.g. using the following measures:
 - Connect the terminals with the ground potential until the recharge voltage drops to a non-hazardous level
 - Attach the connection cable.

Measure the insulation resistance

1. Before you begin measuring the insulation resistance, please read the operating manual for the insulation resistance meter you are going to use.
2. Make sure that no power cables are connected.
3. Measure the winding temperature and the insulation resistance of the winding in relation to the machine enclosure. The winding temperature should not exceed 40° C during the measurement. Convert the measured insulation resistances in accordance with the formula to the reference temperature of 40° C. This thereby ensures that the minimum values specified can be compared.
4. Read out the insulation resistance one minute after applying the measuring voltage.

Limit values for the stator winding insulation resistance

The following table specifies the measuring voltage and limit values for the insulation resistance. These values correspond to IEEE 43-2000 recommendations.

Table 7-1 Stator winding insulation resistance at 40° C

$V_N [V]$	$V_{Meas} [V]$	$R_C [M\Omega]$
$U \leq 1000$	500	≥ 5
$1000 \leq U \leq 2500$	500 (max. 1000)	100
$2500 < U \leq 5000$	1000 (max. 2500)	
$5000 < U \leq 12000$	2500 (max. 5000)	
$U > 12000$	5000 (max. 10000)	

U_{rated} = rated voltage, see the rating plate

U_{meas} = DC measuring voltage

R_C = minimum insulation resistance at reference temperature of 40° C

Conversion to the reference temperature

When measuring with winding temperatures other than 40° C, convert the measuring value to the reference temperature of 40° C according to the following equations from IEEE 43-2000.

(1)	R_C	Insulation resistance converted to 40° C reference temperature
	k_T	Temperature coefficient according to equation (2)
	R_T	Measured insulation resistance for measuring/winding temperature T in °C
$R_C = K_T \cdot R_T$		
(2)	40	Reference temperature in °C
	10	Halving/doubling of the insulation resistance with 10 K
	T	Measuring/winding temperature in °C
$K_T = (0.5)^{(40-T)/10}$		

In this case, doubling or halving the insulation resistance at a temperature change of 10 K is used as the basis.

- The insulation resistance halves every time the temperature rises by 10 K.
- The resistance doubles every time the temperature falls by 10 K.

For a winding temperature of approx. 25° C, the minimum insulation resistances are 20 MΩ (U ≤ 1000 V) or 300 MΩ (U > 1000 V). The values apply for the complete winding to ground. Twice the minimum values apply to the measurement of individual assemblies.

- Dry, new windings have an insulation resistance of between 100 and 2000 MΩ, or possibly even higher values. An insulation resistance value close to the minimum value could be due to moisture and/or dirt accumulation. The size of the winding, the rated voltage and other characteristics affect the insulation resistance and may need to be taken into account when determining measures.
- Over its operating lifetime, the motor winding insulation resistance can drop due to ambient and operational influences. Calculate the critical insulation resistance value depending on the rated voltage by multiplying the rated voltage (kV) by the specific critical resistance value. Convert the value for the current winding temperature at the time of measurement, see above table.

Measuring the polarization index

1. To determine the polarization index, measure the insulation resistances after one minute and ten minutes.
2. Express the measured values as a ratio:

$$PI = R_{\text{insul } 10 \text{ min}} / R_{\text{insul } 1 \text{ min}}$$

Many measuring devices display these values automatically following the measurement.

For insulation resistances > 5000 MΩ, the measurement of the PI is no longer meaningful and consequently not included in the assessment.

$R_{(10 \text{ min})} / R_{(1 \text{ min})}$	Assessment
≥ 2	Insulation in good condition
< 2	Dependent on the complete diagnosis of the insulation

NOTICE

Damage to insulation

If the critical insulation resistance is reached or undershot, this can damage the insulation and cause voltage flashovers.

- Contact the Service Center.
- If the measured value is close to the critical value, you must subsequently check the insulation resistance at shorter intervals.

Limit values of the anti-condensation heating insulation resistance

The insulation resistance of the anti-condensation heating with respect to the machine housing should not be lower than 1 MΩ when measured at 500 V DC.

7.4 Heating in order to reach the required surface temperature

Required surface temperature

Always switch the heating on when the machine is at standstill. When the heating is switched on for the first time (commissioning) make sure that the ambient air temperature does not fall below the minus temperature stated in the EC type-examination certificate. Otherwise the explosion protection is not guaranteed.

The heating is not designed to warm the machine up to the minimum permissible surface temperature, but rather to keep the machine at the minimum surface temperature. The machine must be operated at a surface temperature above the minus temperature stated in the EC type-examination certificate in order to maintain the explosion protection. The machine startup or machine commissioning can only take place once the machine has the minimum surface temperature (see machine surface temperature during commissioning $\geq -xx^{\circ}$ C on the supplementary plate).

Make sure that the heating is switched off before the machine is switched on and make sure that it is not switched on again during operation.

7.5 Testing the cooling of the machine

Cooling

- Check that the machine cooling is available for commissioning.

See also

Preparations for use (Page 27)

Cooling water supply

- The cooling water supply is connected and ready for operation.
- The cooling water supply is switched on. The data can be found on the rating plate.
- Cooling water is available in the configured quality and quantity.

External fan

- All external fans fitted are ready for operation and have been connected so that they rotate in the direction specified.
- The flow of cooling air is not impeded.

Motors with water jacket cooling

- Make sure that the cooling-water circuit functions correctly before you commission the water-cooled machine.
- Do not switch the machine on until the cooling-water circuit is in operation. Ensure that the cooling-water circuit remains in operation until the machine has come to a complete standstill.
- Optionally, depending on the order, the motor has PTC thermistors that switch off the motor when the cooling-water circuit fails.
- The openings for the inlet and outlet are at the motor enclosure.
- Vent plugs are optionally provided for the water chamber at the frame. Vent the water chamber when filling for the first time and at regular intervals.
- Use only clean, non-aggressive cooling water with a maximum sediment content of 10 mg/l.
- In order to avoid the increased formation of condensation, make sure that the inlet temperature of the cooling water is at least 20° C.
- Refer to the plates on the machine for the permissible inlet and outlet temperatures, the maximum pressure and the required amount of cooling water.
- If you operate the machine with a cooling-water temperature below 0° C, antifreeze must be added. Note the reduced cooling effect; you must contact the Service Center.

7.6 Commissioning an external fan

An external fan is suitable for use only in unidirectional operation; refer to the specification of the direction of rotation on the fan cowl or on the fan unit. The external fan ensures that the motor is cooled irrespective of the motor speed or direction of rotation.

If the cooling air is in open circulation, it must have only weak, chemically abrasive properties and only a low dust content.

Checks before the first test run

Before the first test run, carry out the following checks:

- The external fan is correctly fitted and aligned.
- The rotor runs freely.
- All of the retaining elements and electrical connections are securely tightened.
- The grounding and equipotential bonding connections to the mains have been correctly made.
- The air flow is not impeded or shut off by flaps, covers or similar.
- All protection measures have been taken to prevent accidental contact with moving or live parts.

Performing the test run

1. Switch the external fan motor on and off briefly.
2. Compare the the direction of rotation of the external fan with the arrow indicating the direction of rotation. If the direction of rotation and the arrow do not match, then switch two of the three phases of the external fan motor.

7.7 Greasing the roller bearings prior to commissioning

- **Regrease** the roller bearings prior to commissioning if the machine has been out of operation for more than a year. The shaft must rotate so that the new grease can be distributed across the bearings.
- **Regrease** the roller bearings prior to commissioning in the following circumstances:
 - When the machine has been in storage in favorable conditions, e.g. in dry rooms that are free of dust and vibrations. This applies to the period between delivery and commissioning, or longer periods of stoppage.
 - If the machine has been in storage in unfavorable conditions for more than two years.

Note

Pay attention to the instructions on the lubricant plate.

- If the machine is equipped with grease removal valves, after relubricating, remove the grease used by completely withdrawing the valve mounted at the bearing several times. The machine must be operational while doing this.
- If the machine is equipped with grease collection chambers, unscrew the grease collection chambers after the interval specified on the plate with the motor stationary and remove the spent bearing grease. If this is not done, the grease will clog and the bearings will overheat.
- Continually check the bearing temperature rise. When using the specified grease quality, for a maximum room temperature of 40 °C, the maximum bearing temperature rise is 80 K.

Avoiding mechanical damage to bearings

Regularly inspect all machines for any mechanical damage. Especially observe that the bearing replacement intervals and relubrication intervals, respectively grease change intervals or oil change intervals specified by the machine manufacturer are maintained.

Replace the bearings once they have reached their nominal service life or verify that they are mechanically in good working order as part of an inspection.

- Where bearings are sealed for life, there is a guarantee that the rated service life is achieved only well after expiry of the service life of the grease in the bearing.
- The theoretical nominal service life of the bearings can be taken from the data sheet of the machine if this was specified – or was specifically defined for mechanical design reasons for a particular application.
- Where machines are subject to externally applied forces (e. g. the force on a drive belt or axial forces arising from the driven machine), at the full loadings listed on the technical specification the rated service life of the bearings is at least 20,000 hours.
- For all other machines, the rated service life of the bearings is at least 40,000 hours.
- For bearings with external oil supply, monitor the lubrication system to ensure that it is operating correctly.

7.8 Test run

After installation or inspection, carry out a test run:

1. Start up the machine without a load. To do this, close the circuit breaker and do not switch off prematurely. Check whether it is running smoothly.
Switching the machine off again while it is starting up and still running at slow speed should be kept to a bare minimum, for example for checking the direction of rotation or for checking in general.
Allow the machine to run down before switching it on again.
2. If the machine is running smoothly and evenly, switch on the cooling equipment. Continue to observe the machine for a while in no-load operation.
3. If it runs perfectly, connect a load.

NOTICE

Thermal overload of motors connected directly to the line supply

In addition to the load torque, the ramp-up (accelerating) time is essentially influenced by the moment of inertia to be accelerated. While ramping up when connected to the line supply, the inrush (starting) current is a multiple of the rated current. This can result in thermal overload. This can damage the motor.

As a consequence, when ramping up, observe the following:

- Monitor the ramp-up time and number of consecutive starts.
- Comply with the limit values and/or ramp-up conditions specified in the catalog or the order documentation.

4. During the test run, check and document the following:
 - Check whether it is running smoothly.
 - Document the voltage, current and power values. As far as possible, document the corresponding values of the driven machine.
 - If this is possible using the available measuring equipment, check the bearing and stator winding temperatures until they have reached steady-state values.
 - Check the machine for noise or vibrations on the bearings or bearing shields as it runs.
5. In case of uneven running or abnormal noise, switch off the machine. As the machine runs down, identify the cause.
 - If the mechanical operation improves immediately after the machine is switched off, then the cause is magnetic or electrical.
 - If the mechanical running does not improve immediately after switching the machine off, then the cause is mechanical.
 - Imbalance of the electrical machine or the driven machine
 - The machine set has not been adequately aligned
 - The machine is being operated at the system resonance point. System = motor, base frame, foundation, ...

NOTICE
Serious damage to the machine
If the vibration values in operation are not maintained in accordance with DIN ISO 10816-3, then the machine can be mechanically destroyed.
• During operation, observe the vibration values in accordance with DIN ISO 10816-3.

When carrying out any work on the machine, observe the general safety instructions and the specifications contained in EN 50110-1 regarding safe operation of electrical equipment.

See also

Safety information (Page 13)

8.1 Safety instructions during operation



WARNING

All terminal boxes must be closed

Terminal boxes contain live electrical parts. Death, serious injury or material damage can result if terminal box covers are removed.

When the machine is in operation, the terminal boxes must remain closed at all times. Terminal boxes may be opened only when the machine is stopped and de-energized.



WARNING

Do not remove covers when the motor is running

Rotating or live parts are dangerous. Death, serious injury or material damage can result if the required covers are removed.


Any covers that prevent live electrical or rotating parts from being touched, or that ensure compliance with a particular degree of protection or are required for ensuring proper air flows, and hence effective cooling, must not be opened during operation.

WARNING

Faults in operation


Deviations from normal operation such as increased power consumption, temperatures or vibrations, unusual noises or odors, tripping of monitoring devices, etc., indicate that the machine is not functioning properly. This can cause faults which can result in eventual or immediate death, serious injury or material damage.


- Immediately inform the maintenance personnel.
- If you are in doubt, immediately switch off the motor, being sure to observe the system-specific safety conditions!

 CAUTION
Fire hazard Certain parts of the motor may reach temperatures above 50° C. Touching them can result in burns. <ul style="list-style-type: none">• Check the temperature of the parts before touching them and take appropriate protective measures if necessary.

NOTICE
Risk of corrosion due to condensate Humid air can condense inside the machine during operation as a result of intermittent duty or load fluctuations. Condensate can collect inside the motor. Damage such as rust can result. <ol style="list-style-type: none">1. Depending on the environmental requirements and operating conditions, remove the screw plugs with retaining washers to drain the water.2. Then refit the screw plugs and retaining washers. If the machine is equipped with drainage plugs, the water can drain away automatically.

8.2 Machine overheating caused by dust

 WARNING
Explosion hazard due to overheating of the machine caused by deposits of dust Deposits of dust have a thermal insulation effect, which can lead to the machine overheating. The maximum surface temperature of the machine cannot be adhered to. The dust can ignite, resulting in an explosion. This can result in death, serious injury or material damage. <ul style="list-style-type: none">• Dust the machine regularly.• Do not switch the machine on until the dust has been removed.

 WARNING
Risk of explosion due to excessive bearing temperature The surface temperature cannot be maintained within maximum permissible limits if the bearing becomes too hot. The dust can ignite, resulting in an explosion. This can result in death, serious injury or material damage. <ul style="list-style-type: none">• Always check the bearing temperatures.• In addition to the current-dependent overload protection device located in the three phases of the connecting cable, we recommend that you also monitor the temperature rise in the machine with the aid of the temperature sensors built into the stator winding. For the alarm and shutdown temperatures, see the "Explanatory text for the machine dimension drawing" section.

8.3 Switching on with the anti-condensation heating active

NOTICE
<p>Excessive machine temperature</p> <p>If the anti-condensation heating is operated while the machine is running, this can increase the temperatures inside the machine. This can result in material damage.</p> <ul style="list-style-type: none"> • Make sure that the anti-condensation heating is switched off before the machine is switched on. • Only operate anti-condensation heating when the machine is switched off.

See also

Interlock circuit for anti-condensation heating (Page 30)

8.4 Switching on the machine

1. If at all possible, run the machine without load and check that it is running smoothly.
2. If it runs perfectly, connect a load.

NOTICE
<p>Thermal overload of motors connected directly to the line supply</p> <p>In addition to the load torque, the ramp-up (accelerating) time is essentially influenced by the moment of inertia to be accelerated. While ramping up when connected to the line supply, the inrush (starting) current is a multiple of the rated current. This can result in thermal overload. This can damage the motor.</p> <p>As a consequence, when ramping up, observe the following:</p> <ul style="list-style-type: none"> • Monitor the ramp-up time and number of consecutive starts. • Comply with the limit values and/or ramp-up conditions specified in the catalog or the order documentation.

3. If this is possible using the available measuring equipment, check the bearing and stator winding temperatures.

8.5 Switching off the external fan

If the controller does not switch off the external fan automatically, switch it off when the machine is stopped.

8.6 Switching off the water-cooling system

If the controller does not switch off the air-to-water heat exchanger automatically, switch it off when the machine is stopped.

8.7 Switching on again after an emergency switching-off

- Check the machine before recommissioning the driven machine after an Emergency Off.
- Eliminate all the causes that have led to the emergency off

8.8 Stoppages

The stoppage is a shutdown for a period of time, during which the machine is stopped but remains at the location of use.

Under normal ambient conditions, e. g. the stopped machine is not exposed to any vibration, no increased level of corrosion, etc. in general, the following measures are necessary during stoppages.

Measures for machines ready to operate during longer non-operational periods

- For longer periods when the machine is not being used, either energize it at regular intervals (roughly once a month), or at least spin the rotor.
- Please refer to the section "Switching on" before switching on to recommission the motor.

NOTICE

Damage due to improper storage

The machine can be damaged if it is not stored properly. If the motor is out of service for extended periods of time, implement suitable anti-corrosion, preservation, and drying measures.

When recommissioning the motor after a long period out of service, carry out the measures recommended in the chapter entitled "Commissioning".

8.8.1 Switching on the anti-condensation heater

If the machine has anti-condensation heating, then switch it on when the machine is not in operation.

- If the controller does not do this automatically, switch on any anti-condensation heating during stoppages. This will avoid the formation of condensation.
- Observe the specifications on the anti-condensation heating plate in this regard.

- For avoidance of frost and corrosion damage, completely drain the water from the cooling system. Then blow air through the cooling system to dry it.
If the cooling system cannot be drained because standby capability is required at short notice, protect the cooling circuit against frost and corrosion damage. To do this, add suitable additives to the cooling water.

NOTICE**Impairment of the heat transport**

Additives such as anti-freeze and corrosive inhibitor can impair the heat transport.

Operate the motor only with the contractually agreed water quality.

For avoidance of deposits, the cooling water circuit must then be kept running. So as to be certain of excluding the possibility of formation of condensation within the machine, the anti-condensation heating should also remain switched on (if fitted).

8.8.2 Avoidance of damage to roller bearings during stoppages

Extended stoppages at the identical or almost identical resting position of the roller bearings can lead to damage such as brinelling or formation of corrosion.

- During stoppages, regularly start the machine up for a brief period once a month, or at least turn the rotor over several times.
If you have uncoupled the machine from the driven machine and secured the rotor with a rotor shipping brace, then remove this before turning the rotor over or starting the machine up.
Make sure that the resting position of the roller bearings after the rotor has been turned over is different from what it previously had been. Use the fitted key or the coupling halves as reference markers.
- During re-commissioning, refer to the information in the "Commissioning" section.

See also

Start-up (Page 67)

8.9 Decommissioning the machine

NOTICE**Damage as a result of an extended period out of service**

If the machine is going to be out of service for longer than six months, then take the necessary measures for preservation and storing. Otherwise damage to the machine will result.

Record the decommissioning steps. This log will be useful upon recommissioning.

See also

Checking the load handling attachments (Page 34)

8.10 Re-commissioning the machine

When you re-commission the machine, proceed as follows:

- Study the record made when the machine was decommissioned, and reverse the measures that were taken for conservation and storage.
- Perform the measures listed in the "Commissioning" section.

See also

Start-up (Page 67)

Decommissioning the machine (Page 81)

8.11 faults

8.11.1 Inspections in the event of faults

Natural disasters or unusual operating conditions, such as overloading or short circuit, are faults that overload the machine electrically or mechanically.

Immediately perform an inspection after such faults.

Correct the cause of the fault as described in the respective remedial measures section. Repair any damage to the machine.

8.11.2 Electrical faults

Note

If you are operating the motor with a converter, the operating instructions of the converter must also be observed if electrical faults occur.

Table 8-1 Electrical faults

↓ Motor fails to start							
↓ Motor accelerates sluggishly							
↓ Rumbling noise during startup							
↓ Rumbling noise during operation							
↓ High temperature rise during no-load operation							
↓ High temperature rise with load							
↓ High temperature rise of individual winding sections							
					Possible causes of faults	Remedial measures	
X	X		X		X	Overload	Reduce the load.
X						Interrupted phase in the supply cable	Check the switches and cables.
	X	X	X		X	Interrupted phase in the feeder cable after switching on	Check the switches and cables.
	X					Mains voltage too low, frequency too high	Check the power supply conditions.
				X		Mains voltage too high, frequency too low	Check the power supply conditions.
X	X	X	X		X	Stator winding incorrectly connected	Check the winding connection in the terminal box.
	X	X	X		X	Winding short circuit or phase short circuit in stator winding	Determine the winding resistances and insulation resistances. Carry out repair work after consultation with the manufacturer.
					X	Incorrect direction of rotation	Check the connection.

8.11.3 Mechanical faults

Table 8-2 Mechanical faults

↓ Grinding noise						
↓ Radial vibrations						
↓ Axial vibrations						
					Possible causes of faults	Remedial measures
X					Rotating parts grind	Establish the cause and realign the parts.
	X				Stator or coupling not balanced.	Disconnect the stator or coupling and rebalance. If the machine has two shaft ends, and a transmission element is only fitted to one end, secure the fitted key at the other end to prevent it from being thrown out. If the rotor has balance type "H" (standard type), the fitted key must be cut back to roughly half of its length.
	X				Rotor out of true, shaft bent	Consult the manufacturing plant.
	X	X			Poor alignment	Align the machine set; check the coupling. ⁽¹⁾
	X				Coupled machine not balanced	Rebalance the coupled machine.
		X			Shocks from coupled machine	Investigate the coupled machine.
	X	X			Uneven running of gear unit	Fix the gearing.
	X	X			Resonance of the overall system comprising motor and foundation	Stabilize the foundation following consultation.

↓ Grinding noise			
↓ Radial vibrations			
↓ Axial vibrations			
		Possible causes of faults	Remedial measures
X	X	Changes in foundation	Establish the cause of the changes and eliminate them if necessary; realign the machine.
⁽¹⁾ Take any changes into account when warming up the machine.			

8.11.4 Roller bearing faults

Note

Damage to roller bearings can be difficult to detect in some cases. If in doubt, replace the bearing. Use other bearing designs only **after consulting the manufacturer**.

Table 8-3 Roller bearing faults

↓ Bearing overheats			
↓ Bearing "whistles"			
↓ Bearing "knocks"			
		Possible causes of faults	Remedial measures
X		High coupling pressure	Align the machine more accurately.
X		Belt tension too high	Reduce the drive belt tension.
X		Bearing contaminated	Clean the bearing or replace it. Check the seals.
X		High ambient temperature	Use a suitable high-temperature grease.
X	X	Insufficient lubrication	Grease the bearings as instructed.
X	X	Bearing canted	Properly install the bearing.
X	X	Insufficient bearing play	Contact the Service Center.
	X	Excessive bearing play	Contact the Service Center.
X	X	Bearing corroded	Replace the bearing. Check the seals.
X		Too much grease in bearing	Remove surplus grease.
X		Wrong grease in the bearing	Use the correct grease.
	X	Friction marks on raceway	Replace the bearing.
	X	Scoring (brinelling)	Replace the bearing. Avoid any vibration at standstill

8.11.5 Faults at the external fan

The following table shows the possible causes of and remedial measures for faults on forced-ventilated machines.

Table 8-4 Cooling system faults

↓ High temperature rise with load		
	Possible causes of faults	Remedial measures
X	Wrong direction of rotation of the external fan	Check the electrical connections to the external fan.
X	External fan is not running	Check the external fan and its connections.
X	Reduced air flow	Check the air ducts; clean the machine.

8.11.6 Cooling system faults (water jacket cooling)

The following table shows the possible causes of and remedial measures for faults on water-cooled machines.

Table 8-5 Cooling system faults

↓ Overheating		
↓ Water leaking		
	Possible causes of faults	Remedial measures
X	Reduced cooling	Check the cooling water flow, increase the amount of cooling water if necessary.
X	Cooling water flow rate too low	Consult the manufacturer. If the specified cooling water quality is observed, the cooling system is maintenance-free.
X	Inlet temperature too high	Set the correct upstream temperature.
X	Cooling water supply switched off	Switch on the cooling water supply.
X	Cooling water contains too many or unsuitable antifreeze and corrosion-protection agents	Use cooling water of the agreed quality.
X	Leaks in the cooling system	Consult the manufacturer.
X	Defective cooling water connection	Find the leak and seal it.

Maintenance

Through careful and regular maintenance, inspections, and overhauls you can detect faults at an early stage and resolve them. This means that you can avoid consequential damage.

Operating conditions and characteristics can vary widely. For this reason, only general maintenance intervals can be specified here. Maintenance intervals should therefore be scheduled to suit the local conditions (dirt, starting frequency, load, etc.).

When carrying out any work on the machine, observe the general safety instructions and the specifications contained in EN 50110-1 regarding safe operation of electrical equipment.

See also

Safety information (Page 13)


Note

Service Center

Please contact the Service Center (Page 117), if you require support with servicing, maintenance or repair.

9.1 Inspection and maintenance

9.1.1 Safety instructions for inspection and maintenance

 WARNING
<p>Rotating and live parts</p> <p>Electric machines contain live and rotating parts. Fatal or serious injuries and substantial material damage can occur if maintenance work is performed on the machine when it is not stopped or not de-energized.</p> <ul style="list-style-type: none"> • Perform maintenance work on the machine only when it is stopped. The only operation permissible while the machine is rotating is regreasing the roller bearings. • When performing maintenance work, comply with the five safety rules (Page 13).

 **WARNING**

Machine damage

If the machine is not maintained it can suffer damage. This can cause faults which can result in eventual or immediate death, serious injury or material damage.

Perform regular maintenance on the machine.

 **CAUTION**

Dust disturbances when working with compressed air

When cleaning with compressed air, dust, metal chips, or cleaning agents can be whirled up. Injuries can result.

When cleaning using compressed air, make sure you use suitable extraction equipment and wear protective equipment (safety goggles, protective suit, etc.).

NOTICE

Damage to insulation

If metal swarf enters the winding head when cleaning with compressed air, this can damage the insulation. Clearance and creepage distances can be undershot. This may cause damage to the machine extending to total failure.

When cleaning with compressed air, ensure there is adequate extraction.

NOTICE

Machine damage caused by foreign bodies

Foreign bodies such as dirt, tools or loose components, such as screws etc., can be left by accident inside the machine after maintenance is performed. These can cause short circuits, reduce the performance of the cooling system or increase noise in operation. They can also damage the machine.

- When carrying out maintenance work, make sure that no foreign bodies are left in or on the machine.
- Securely attach all loose parts again once you have completed the maintenance procedures.
- Carefully remove any dirt.

Note

Operating conditions and characteristics can vary widely. For this reason, only general intervals for inspection and maintenance measures can be specified here.

 **WARNING****Explosion hazard**

Components within the machine may be hotter than the maximum permissible surface temperature of the enclosure. In an explosive atmosphere, dust can ignite and an explosion occur. This can result in death, serious injury or material damage.

- Do not open the machine in an explosive and dusty atmosphere when it is still at normal operating temperature.
- Allow the machine to cool down before opening it.
- When disassembling, ensure that the parts necessary to seal the enclosure are not damaged, for example seals, face/plane mating surfaces. Perform a new routine test for the parts that have been repaired if these parts are crucial to ensure dust protection.

 **WARNING****Explosion hazard due to overheating of the machine caused by a layer of dust**

Layers of dust thicker than 5mm can insulate the machine, resulting in overheating. The maximum surface temperature of the machine cannot be adhered to. The dust can ignite, resulting in an explosion. This can result in death, serious injury or material damage.

Dust the machine regularly. Do not allow dust layers thicker than 5 mm to build up on the machine surface. Do not switch the machine on until the dust has been removed.

 **WARNING****Risk of explosion due to excessive bearing temperature**

The surface temperature cannot be maintained within maximum permissible limits if the bearing becomes too hot. The dust can ignite, resulting in an explosion. This can result in death, serious injury or material damage.

- Always check the bearing temperature.
- In addition to the current-dependent overload protection device located in the three phases of the connecting cable, we recommend that you also monitor the temperature rise in the motor with the aid of the temperature sensors built into the stator winding.

9.1.2 Inspections in the event of faults

Natural disasters or unusual operating conditions, such as overloading or short circuit, are faults that overload the machine electrically or mechanically.

Immediately perform an inspection after such faults.

9.1.3 First inspection

Perform the following checks after approximately 500 operating hours or one year, whichever comes first:

Table 9-1 Checks after installation or repair

Check	When the motor is running	At standstill
The electrical parameters are maintained.	X	
The permissible bearing temperatures are not exceeded.	X	
The smooth running characteristics and machine running noise have not deteriorated.	X	
The motor foundation has no cracks and indentations. (*)	X	X

(*) You can perform these checks while the motor is at standstill or, if required, while running.

Further checks

Further checks may be required if so specified in supplementary instructions or in accordance with the plant-specific conditions.

NOTICE

If you detect any deviations during the inspection, you must rectify them immediately. They may otherwise damage the motor.

9.1.4 General inspection

Check that the installation conditions are observed. We recommend that the following checks are performed after approx. 16 000 operating hours or at the latest after two years:

Table 9-2 Checks that have to be performed during the general inspection

Checking	When the motor is running	At standstill
The electrical parameters are maintained	X	
The permissible bearing temperatures are not exceeded	X	
The smooth running characteristics and machine running noise have not deteriorated	X	
The motor foundation has no cracks and indentations (*)	X	X
The machine is aligned within the permissible tolerance ranges		X
All the fixing bolts/screws for the mechanical and electrical connections have been securely tightened		X
All the potential connections, grounding connections and shield supports are correctly seated and properly bonded		X
The winding insulation resistances are sufficiently high		X

Checking	When the motor is running	At standstill
Any bearing insulation is fitted as shown on the plates and labels		X
The CABLES and insulating parts and components are in good condition and there is no evidence of discoloring		X

(*) You can perform these checks while the motor is at standstill or, if required, while running.

NOTICE
If you detect any deviations during the inspection, you must rectify them immediately. They may otherwise cause damage to the machine.

9.1.5 Servicing the roller bearings

When inspecting rolling-contact bearings, it is generally not necessary to dismantle the machines. The motor only has to be dismantled if the bearings are to be replaced.

9.1.6 Servicing the water-jacket cooling

- During each inspection, check whether a pool of water has collected under the machine. Identify the cause: This can be condensation or a leak in the cooling system.
- Check any leakage water electrodes. Contact your Service Center, if necessary.

9.1.7 Maintenance

Braking machines with single-disk spring-loaded brake

The maintenance-free brake is electro-released and in the released state can be operated for any length of time in every mounting position, and is suitable for both directions of rotation. The brake linings are asbestos-free and extremely resistant to wear.

NOTICE
Do not allow oil or grease to come into contact with friction surfaces
This can result in a reduction or complete brake loss.

Setting the air gap

The air gap " S_{Gap} " is set in the factory according to table 1. If a readjustment is required, set the correct air gap " S_{Gap} " by rotating the readjustment sleeve. Make sure when performing the manual brake release that the dimension "S" between the self-locking nuts and the armature

disk is set the same on both sides. If you readjust the air gap " S_{Gap} ", nothing must be changed on the manual brake release.

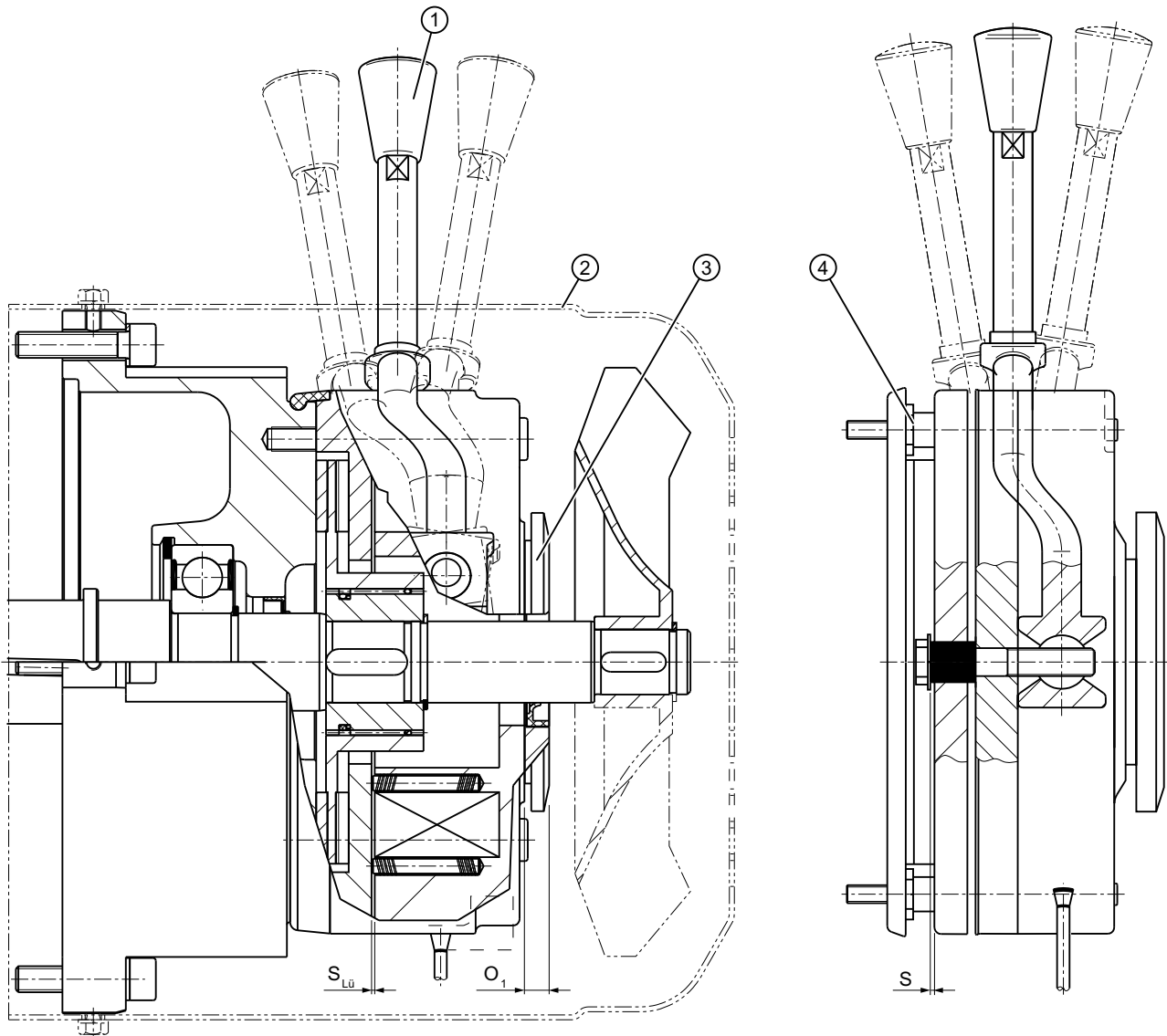


Image 9-1 Lenze brake type BFK 458

Setting the braking torque


The brake is supplied with the rated braking torque already set. You can reduce the braking torque at the most to dimension " O_1 " by screwing out the adjustment ring ③. Remove the fan cowl ② to adjust the braking torque. Unscrew part ① first before executing the manual brake release.

Reduction of the braking torque per notch according to table 1 of the Lenze brake type BFK 458:

Brake size	06	08	10	12	14	16	18	20	25
Rated braking torque [Nm]	4	8	16	32	60	80	150	260	400
S _{Gap} [mm]	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5
S [mm]	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.5
Reduction per notch [Nm]	0.2	0.35	0.8	1.3	1.7	1.7	3.6	5.6	6.2
O _{1 max} [mm]	4.7	4.7	7.6	9.6	11	10	14.9	16.4	18.3

If required, you can order operating instructions and a maintenance guide for the single-disk spring-loaded brake.

9.1.7.1 Explosion hazard due to increased surface temperature

 WARNING
<p>Explosion hazard due to increased surface temperature</p> <p>Components within the motor may be hotter than the maximum permissible surface temperature for the enclosure. In an explosive atmosphere, dust can ignite and an explosion occur. This can result in death, serious injury or material damage.</p> <ul style="list-style-type: none"> • Do not open the motor in an explosive and dusty atmosphere when it is still at normal operating temperature. • Allow the machine to cool down before opening it.

9.1.7.2 Insulation resistance and polarization index

Measuring the insulation resistance and polarization index (PI) provides information on the condition of the machine. It is therefore important to check the insulation resistance and the polarization index at the following times:

- Before starting up a machine for the first time
- After an extended period in storage or downtime
- Within the scope of maintenance work

The following information is provided regarding the state of the winding insulation:

- Is the winding head insulation conductively contaminated?
- Has the winding insulation absorbed moisture?

As such, you can determine whether the machine needs commissioning or any necessary measures such as cleaning and/or drying the winding:

- Can the machine be put into operation?
- Must the windings be cleaned or dried?

9.1 Inspection and maintenance

Detailed information on testing and the limit values can be found here:

"Testing the insulation resistance and polarization index"

9.1.7.3 Grease stability times and mass of fillings

Standard roller bearings

Size	Grease stability time for permanent lubrication or relubrication interval for a regreasing system in operating hours at rated speed						Grease filling quantity for permanent lubrication or grease quantity for relubrication in g per bearing			
	Horizontal type of construction (B)			Vertical type of construction (V)			Permanent lubrication		Relubrication	
	3000 rpm	1500 rpm	≤1000 rpm	3000 rpm	1500 rpm	≤1000 rpm	3000 rpm	≤1500 rpm	3000 rpm	≤1500 rpm
71	33000			24000	33000		3	3	-	-
80							3	3	-	-
90							4	4	-	-
100							9	9	-	-
112							9	9	-	-
132	24000	40000	40000	16000	26000	40000	18	18	-	-
160							32	32	-	-
180							51	51	-	-
200							63	63	-	-
225							79	79	-	-
250							99	99	-	-
280							99	132	-	-
315	4000	8000	11000	2800	5600	8000	-	-	35	25
355					4000	5600	-	-	35	50

The specified grease stability times and/or relubrication intervals are valid for maximum ambient temperatures of 40 °C. Reduce the lubrication interval for a 10 °C increase in temperature by a factor of 0.7 of the value listed in the table (max. 20 °C = factor 0.5). With an ambient temperature ≤ 25 °C, twice the grease stability time can be expected; but a maximum of 40000 hours. Times for operation on 60 Hz systems on request. With pure coupling operation with flexible coupling, the calculated bearing life is L10h greater than 50000 hours. Comply with the grease service life and relubrication intervals.

Reinforced roller bearings

Size	Grease stability time for permanent lubrication or relubrication interval for a regreasing system in operating hours at rated speed						Grease quantity for relubrication in g per bearing	
	Horizontal type of construction (B)			Vertical type of construction (V)			3000 rpm	≤1500 rpm
	3000 rpm	1500 rpm	≤1000 rpm	3000 rpm	1500 rpm	≤1000 rpm		
180	2800	5600	8000	2000	4000	5600	17	17
200							20	20
225							25	25
250	2000	4000	5600	1400	2800	4000	25	25
280							25	35
315		2800	5600				35	25
355		2800	5600				35	50

The specified relubrication intervals are valid for maximum ambient temperatures of 40 °C. Reduce the relubrication intervals for a

10°C increase in temperature by a factor of 0.7 of the value listed in the table (max. 20 °C = factor 0.5). Times for operation on 60 Hz systems on request.

9.1.7.4 Regreasing intervals and types of grease for operating rolling-contact bearings

Regreasing intervals

The regreasing intervals for roller bearings in operating hours and the grease types are stated on the machine's lubricant plate. Regardless of the actual number of operating hours reached, the machine must be regreased at least once a year. The lubrication information can be found on the lubricant plate.

Note

Observe the regreasing intervals for the roller bearings

The regreasing intervals for roller bearings are different from the service/inspection intervals for the machine. Failure to regrease the roller bearings at the specified intervals can result in bearing damage.

Regreasing

The spent grease chamber is designed to accommodate the spent grease for a computed, rated service life of 40000 operating hours.

- Clean the grease nipples before regreasing and then gradually press in an appropriate type and amount of grease, as described on the lubricant plate. The shaft must then be rotated so that the new grease can be distributed throughout the roller bearing. The roller bearing temperature rises sharply at first, then drops to the normal value again after the excess grease has been displaced out of the bearing.
 - If the machine is fitted with **grease removal sliders** :
After the bearings have been regreased, with the motor running, the used grease should be removed by pulling the slider fitted to the bearing to its stop several times.
 - If the machine is fitted with **grease collection chambers** :
Unbolt the grease collection chambers at the intervals shown on the notice plate with the motor stopped, and remove the used bearing grease. If this is not done, the grease will clog and the bearings will overheat.



WARNING

Rotor can fall out

If the machine is in a vertical position, the rotor can fall out while work is being performed on the locating bearing. This can result in death, serious injury or material damage.

Support or relieve the rotor when carrying out work with the machine in a vertical position.

Grease types

For the standard operating range, a grease for temperatures down to -20 °C is normally used for the initial greasing of roller bearings. If the machine has been ordered for use in the extended temperature range of below -20 °C, the permissible type of grease is indicated on the lubricant plate.

Note

Grease quantity control

The grease quantity control only operates correctly if the specified greases are used. This is specified on plates attached to the machine.

9.1.7.5 Alternative types of grease for the operation of roller bearings

In the following table, you will find a list of approved alternative types of grease.

Filling with oil for the first time	Alternative permissible greases
Shell Gadus S2 V100 3	Aral Aralub HL3 BP Energrease LS3 Castrol Optimol Olista Longtime 3 Exxon Mobil Beacon EP3 Mobilux EP3 OMV Signum L3 SKF LGMT 3
Shell Gadus S5 V42P 2.5 Aeroshell Gadus S7	Currently no comparable grease with $Dm \cdot n \geq 1,000,000$ is known.
Shell Gadus S5 V100 2	Exxon Mobil Mobilith SHC 100
Esso Unirex N3	Exxon Mobil Mobilgrease XHP 103 Shell Gadus S5 V100 2
Shell Gadus S3 T100 2	BP Energrease SY2202 Castrol Firetemp XT2 Chevron Grease SRI2 Klüber Petamo GHY 133N SKF LGHP 2 Exxon Mobil Polyrex EM

Observe the following when changing over to an alternative type of grease that is permitted according to the table:

Bearings with permanent lubrication:

- Completely remove the old grease from the bearing before regreasing it.
- Fill roller bearings completely with grease and cavities in the bearing cover only up to one third.

Bearings with regreasing:

If complete replacement of grease and cleaning of the bearing is not possible, keep the operating time to a minimum when different greases are mixed. To do this, thoroughly grease the bearing when the machine is running with about twice the amount of grease until spent grease has been removed from the greasing ducts. Then regrease 4x at intervals of ¼ of the

normal greasing interval. During this time, very carefully monitor the bearing locations involved. Then resume the normal greasing intervals.

NOTICE

Damage due to mixing grease types

If you mix greases and oils with different soap or oil bases, then the lubricating properties may no longer be guaranteed.

Mixing low-temperature grease with normal temperature grease can cause lumps to form in the lubricant. The consequence can be damage to the roller bearings due to overheating.

Never mix greases that have different thickening agents and different base oils.

Cleaning

- To ensure problem-free machine cooling, the air ducts (ventilation grilles, channels, cooling fins, tubes) must be free of any dirt.

WARNING

Explosion hazard

Cleaning the machine in an explosive atmosphere is forbidden. This can result in death, serious injury or material damage.

Surfaces can become statically charged and discharge to ignite potentially explosive atmospheres.



WARNING

Rotating or live parts

Live electrical parts are dangerous. Contact with them can cause death, serious injury or material damage.

Before carrying out any maintenance work on the external fan, disconnect it from the mains, particularly before opening the terminal box. Make sure that the device cannot be switched back on.

Servicing the external fan

The external fan is essentially maintenance-free. However, dirt and dust deposits on the impeller and the motor, particularly in the gap between the impeller and the inlet nozzle can impair its function.

- Remove the dirt and dust deposits regularly; the intervals depend on how dirty the surrounding area is.
- Make sure that the impeller is evenly cleaned, as irregular deposits can lead to an imbalance.

Note**Flowrate**

The full flowrate is only achieved if the inward flow of air to the impeller is unrestricted.

Servicing the external fan motor

- Perform an occasional visual inspection of the external fan motor and check it electrically and mechanically every time the roller bearings are replaced.
- Replace permanently lubricated roller bearings in the external fan motor as specified in the operating instructions for the external fan motor.

9.1.7.6 Maintaining terminal boxes "Ex d"

Requirement

The machine is de-energized.

Checking the terminal box

- Terminal boxes must be regularly checked for tightness, undamaged insulation, and tight terminal connections.
- If dust or humidity have infiltrated the terminal box, this should be cleaned and dried (particularly the insulators).
Check all the seals and sealing surfaces and address the cause of the leakiness.
- Check the insulators, connectors and cable connections in the terminal box.
- Line entries inside the terminal box are part of the regular inspection in accordance with IEC/EN 60079-17.
- Replace the damaged components if necessary.

**WARNING****Short-circuit hazard**

Short-circuits can occur as a result of damaged components that can lead to death, serious injury or material damage.

Replace damaged components.

9.1.7.7 Touch up any damaged paintwork

If the paint is damaged, it must be repaired in order to protect the unit against corrosion.

Note**Paint system**

Contact the Service Center (Page 117) before you repair any paint damage. They will provide you with more information about the correct paint system and methods of repairing paint damage.

Complete overpainting

The coating thickness is limited to 40 - 80 µm.

See also

Service and Support (Page 117)

9.2 Corrective Maintenance

When carrying out any work on the machine, observe the general safety instructions and the specifications contained in EN 50110-1 regarding safe operation of electrical equipment.

See also

Safety information (Page 13)

Note

If the motor has to be transported, please observe the information and instructions in the "Transport" section.

 WARNING
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Explosion hazard due to increased surface temperature

Components within the motor may be hotter than the maximum permissible surface temperature for the enclosure. In an explosive atmosphere, dust can ignite and an explosion occur. This can result in death, serious injury or material damage.

- Do not open the motor in an explosive and dusty atmosphere when it is still at normal operating temperature.
- Allow the machine to cool down before opening it.

9.2.1 Assembling the rolling-contact bearings

- Extreme caution and attention to cleanliness are vital to installation. Observe the correct assembly sequence of the components.
- Attach all components with the specified tightening torques.

Note

For further information about mounting the roller bearing, please refer to the catalog or the information provided by the roller bearing manufacturer.

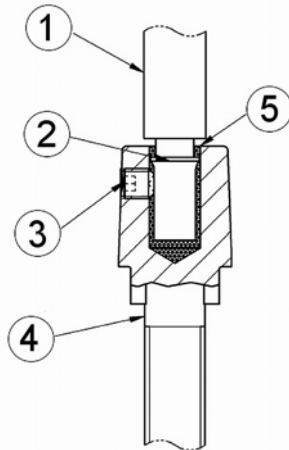
Procedure

1. Remove the required components and replace damaged components.
2. Remove any dirt from the components. Remove any grease and the remains of sealant or liquid threadlocker.
3. Prepare the bearing journals:
 - Lightly oil the inner ring seat.
 - Grease the outer ring seat with solid lubricant such as the anti-fretting paste Altemp Q NP 50.
4. Warm up the roller bearing.
5. Push the inner ring of the warmed up roller bearing onto the shaft. Avoid any blows that might damage the bearing.
6. Make sure that the roller bearing is resting against the shaft shoulder or the second bearing. Otherwise, axial vibrations may occur.
7. Fill the bearing to the top with the specified lubricating grease.
8. Warm up the grease slinger and push it onto the shaft.
9. Locate the locking ring in the shaft groove or attach the bearing using the shaft nut or a set screw, depending on the particular version.
10. Support the rotor for the installation of bearing housing or end shield.
11. Grease the bearing locations (bearing shield/bearing cartridge) with solid lubricant such as the anti-fretting paste Altemp Q NP 50.
12. Use a suitable sealant when assembling.
13. Install the bearing shield or bearing housing together with the bearing shield.
14. Install the outer bearing cover if one is being used.
15. Install the sealing elements:
 - If present: V ring
 - Labyrinth sealing ring (special design)

9.2.2 Fixing stator cables at the terminal studs

If the terminal box was removed and must now be re-attached, then you must reconnect the stator cables in the terminal box. If the terminal studs have been damaged during the work, proceed as follows:

1. Strip the insulation from the ends of the stator cable so that the remaining insulation almost extends up to terminal studs ④.
2. Attach the end sleeves ② according to DIN 46228 at the ends of the stator cables.
3. Cut the corrugated tubing to the correct length and place it over the stator cable.
4. Drill out the terminal studs ④ according to DIN 46228 corresponding with the cross-section of the stator cable.
5. Place the terminal studs ④ on the stator cable ① and secure these with a stud bolt ③ according to DIN 916.
6. Solder the terminal studs ④ using soft solder L-Sn 90 ⑤.



Stator cable with terminal studs

WARNING

Rotor can fall out


If the motor is in a vertical position, the rotor can fall out while work is being performed on the locating bearing. This can result in death, serious injury or damage.

- Support or unload the rotor when carrying out work with the machine in a vertical position.

9.2.3 Seal the motor

Extreme caution and attention to cleanliness are vital to installation.

- Clean all bare joints between parts, e.g. between housings and terminal boxes, and remove old sealant material.
- Smear bare joints between parts with non-hardening, permanently flexible sealant, such as "Hylomar M". Follow the manufacturer's application and safety instructions when doing this.
- Check all sealing elements, such as those on the terminal boxes, for elasticity, aging or damage, and renew them if they are no longer effective.

 WARNING
Damage to the machine possible
Never dismantle the bearing shields and inner grease chamber cap or loosen the screws of these parts.
This can result in death, serious injury or material damage.

9.2.4 O-ring seal

If O-ring seals are present, you should check that they are in perfect condition and that the O-ring seals are properly seated in the grooves between the components. Replace any damaged O-ring seals.

O-ring seals can be present on the following components, for instance:

- Tapers
- Cable glands
- Bearing seals
- Bearing plate seals
- Terminal box seals
- Cable glands
- etc.

Spare Parts

10.1 Ordering data

When ordering spare parts, in addition to the precise designation of the spare part, specify the motor type and the serial number of the motor. Ensure that the spare part designation matches the designation in the spare part lists and add the associated part number.

Example:

Bearing shield, drive end (Part 105)

Machine type ANGA-315ML-02A

Serial number LDX/30000001

The machine type and serial number can be found on the rating plate data and in the technical data. The serial number is also stamped on the end face of the shaft extension at the drive end.

Terminal box

If several terminal boxes are mounted on the machine, please also indicate the type designation of the terminal box in addition to details of part designation and part number according to the legend, as well as type and serial number of the motor when ordering spare parts.

Example

- Terminal box type
- Terminal box cover (part 20.30)
- Serial number of the motor
- Machine type

Rolling-contact bearings

When ordering roller bearings, in addition to the bearing identification code, the supplementary specifying code is also necessary for the bearing version. Both of these codes are stamped on the lubricant plate and specified in the motor documentation, or can also be taken from the installed bearings.

You can use commercially available, standard components, but ensure that they have the same construction type, dimensions, strength class etc.

Anti-condensation heating

Please contact the Service Center for spare parts.

10.2 Spare parts list, frame sizes 071 to 132

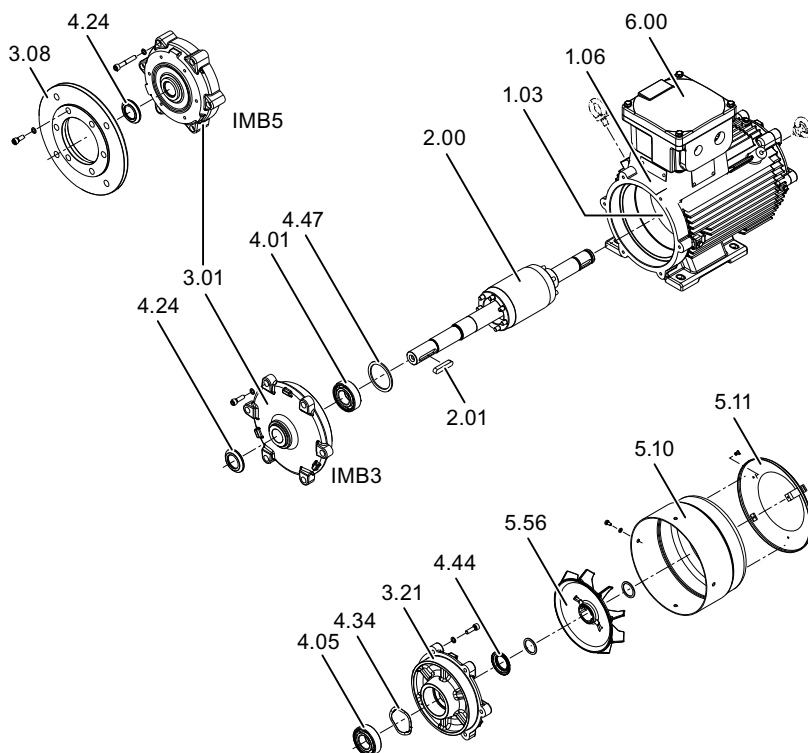


Image 10-1 D-DN000-0007

Parts Number	Designation	Parts Number	Designation
1.03	Stator laminated core with winding	4.18	Grease slinger
1.06	Stator frame	4.24	Gamma ring
2.00	Shaft with rotor	4.34	Spacer washers
2.01	Feather key	4.44	Gamma ring
3.01	End shield, drive end	5.10	Fan cover
3.08	Flange plate	5.11	Protective cover
3.21	End shield, non-drive end	5.56	Fan
4.01	Roller bearing, DE	6.00	Terminal box
4.05	Roller bearings, NDE		

10.3 Spare parts list, frame sizes 160 to 280

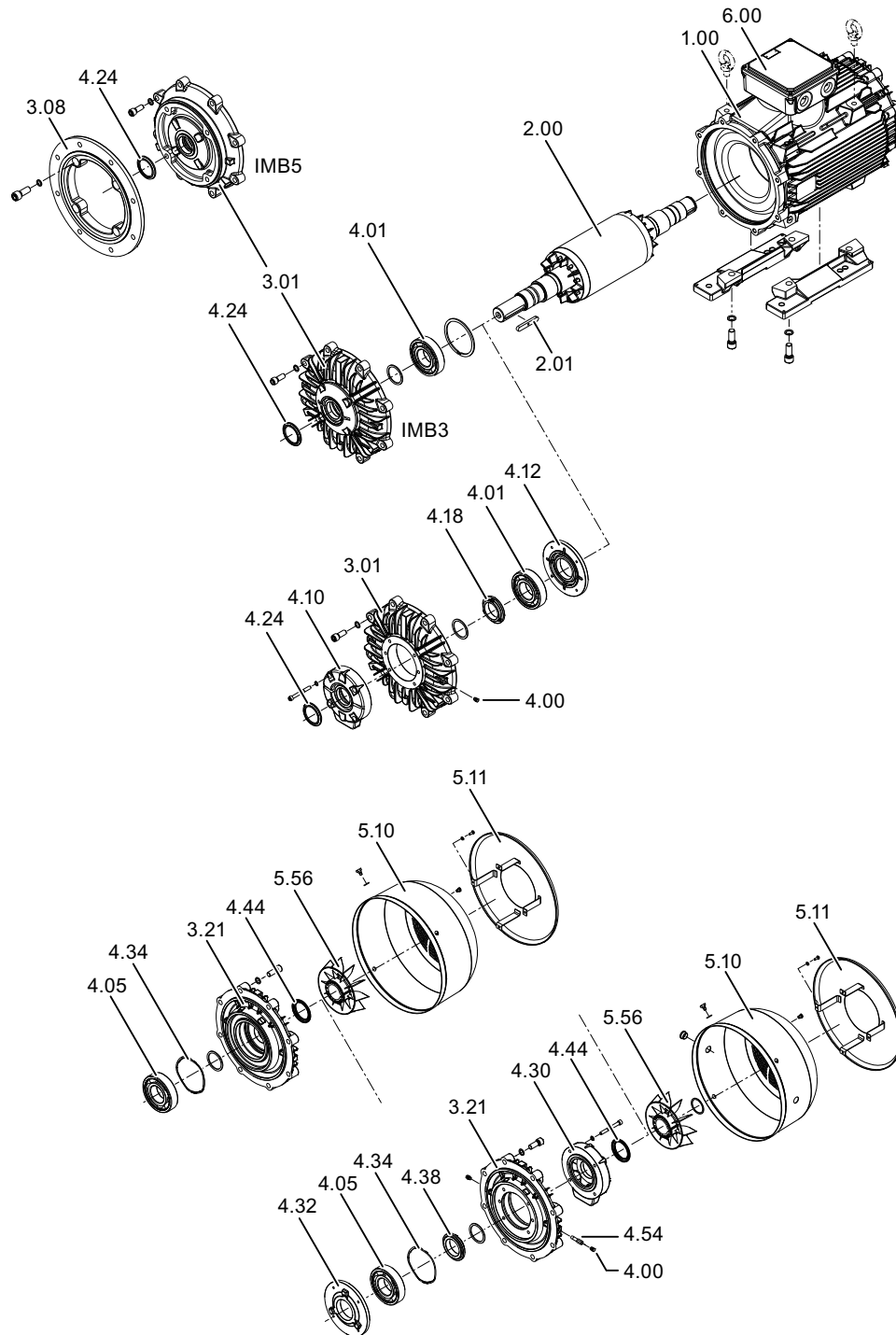


Image 10-2 E-AN000-0004

Spare Parts

10.3 Spare parts list, frame sizes 160 to 280

Parts Number	Designation	Parts Number	Designation
1.00	Stator, complete	4.18	Grease slinger DE
2.00	Rotor, complete (balanced)	4.24	Sealing ring DE, outer
2.01	Keyway	4.30	Grease chamber cover NDE, outer
3.01	Bearing shield DE	4.32	Grease chamber cover NDE, inner
3.08	Flange plate DE	4.34	Spacer washer NDE
3.21	Bearing shield NDE	4.38	Outer grease chamber cover
4.00	Bearing shield NDE	4.44	Sealing ring NDE, outer
4.01	Bearing DE	4.54	Relubrication NDE
4.05	Bearing NDE	5.10	Complete fan cowl
4.10	Grease chamber cover DE, outer	6.00	Terminal box
4.12	Grease chamber cover DE, inner		

10.4 Spare parts list, frame size 315

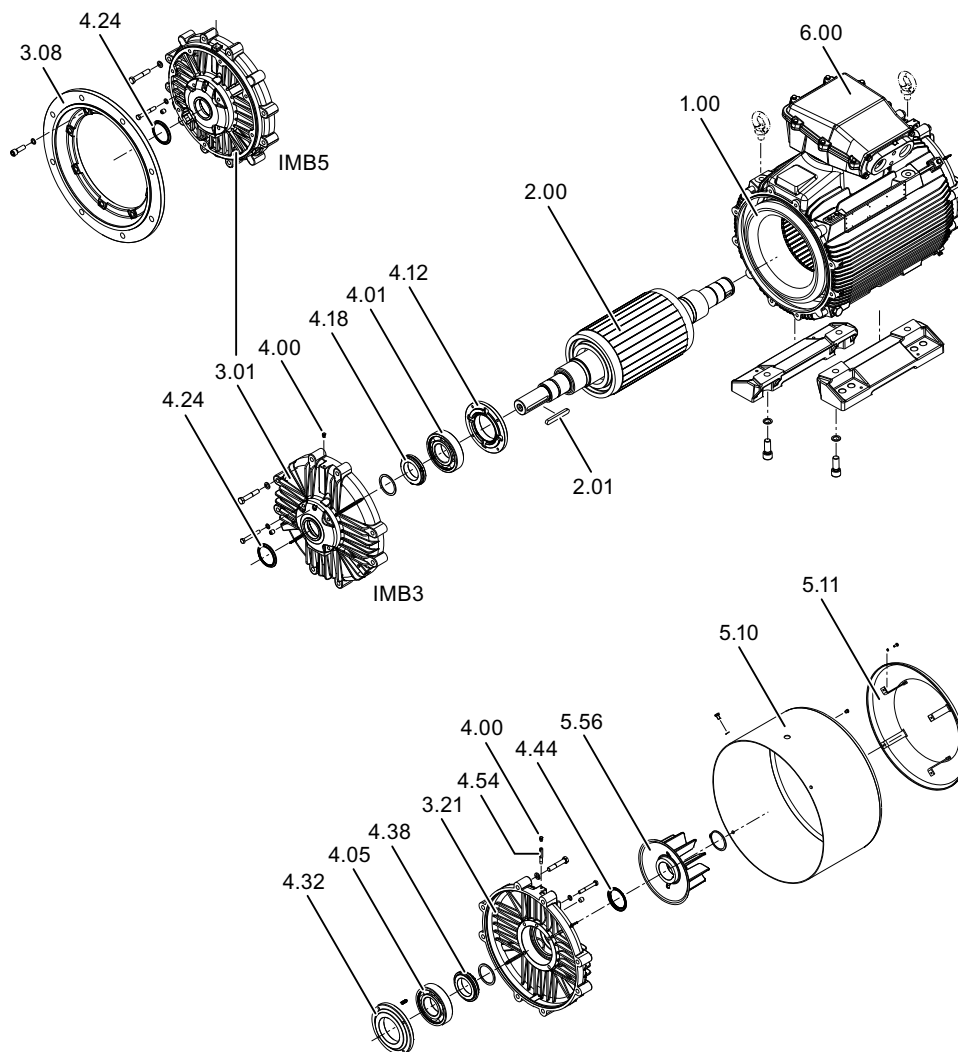


Image 10-3 E-AN000-0005

Parts Number	Designation	Parts Number	Designation
1.00	Stator, complete	4.18	Grease slinger DE
2.00	Rotor, complete (balanced)	4.24	Sealing ring DE, outer
2.01	Keyway	4.30	Grease chamber cover NDE, outer
3.01	Bearing shield DE	4.32	Grease chamber cover NDE, inner
3.08	Flange plate DE	4.34	Spacer washer NDE
3.21	Bearing shield NDE	4.38	Outer grease chamber cover
4.00	Bearing shield NDE	4.44	Sealing ring NDE, outer

Spare Parts

10.4 Spare parts list, frame size 315

Parts Number	Designation	Parts Number	Designation
4.01	Bearing DE	4.54	Relubrication NDE
4.05	Bearing NDE	5.10	Complete fan cowl
4.10	Grease chamber cover DE, outer	6.00	Terminal box
4.12	Grease chamber cover DE, inner		

10.5 Spare parts list for terminal boxes with type of protection "Ex e", frame sizes 071-160

10.5 Spare parts list for terminal boxes with type of protection "Ex e", frame sizes 071-160

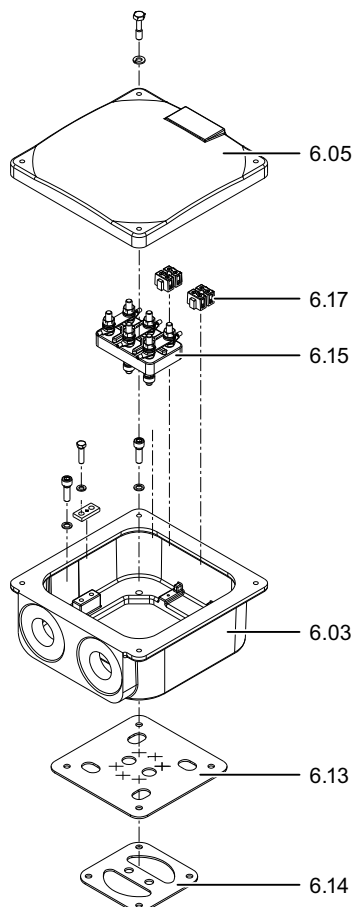


Image 10-4 E-9-101_162-0001

Part number	Designation	Part number	Designation
6.03	Terminal box base	6.14	Mounting plate
6.05	Terminal box cover	6.15	Complete terminal board
6.13	Terminal box seal	6.17	Additional terminal

10.6 Spare parts list for terminal boxes with type of protection "Ex e", frame sizes 180-225

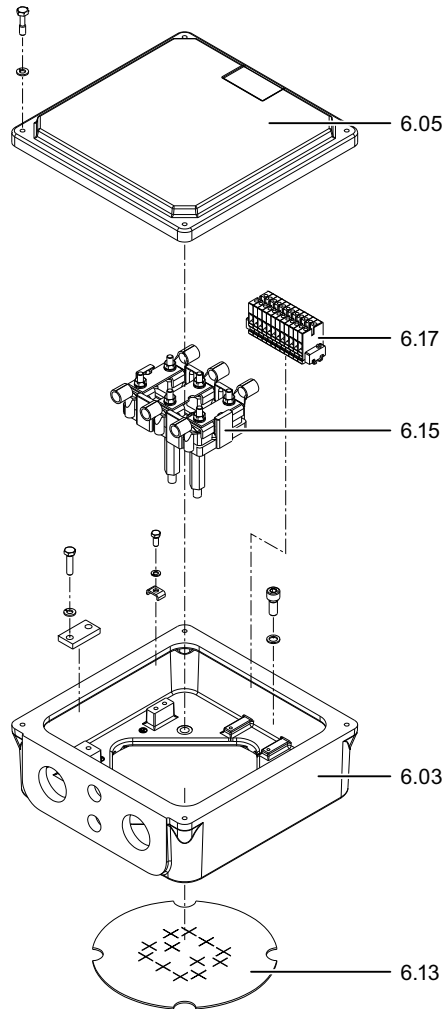


Image 10-5 E-9-101_208-0001

Part number	Designation	Part number	Designation
6.03	Terminal box base	6.15	Complete terminal board
6.05	Terminal box cover	6.17	Additional terminal
6.13	Terminal box seal		

10.7 Spare parts list for terminal boxes with type of protection "Ex e", frame sizes 250 to 355

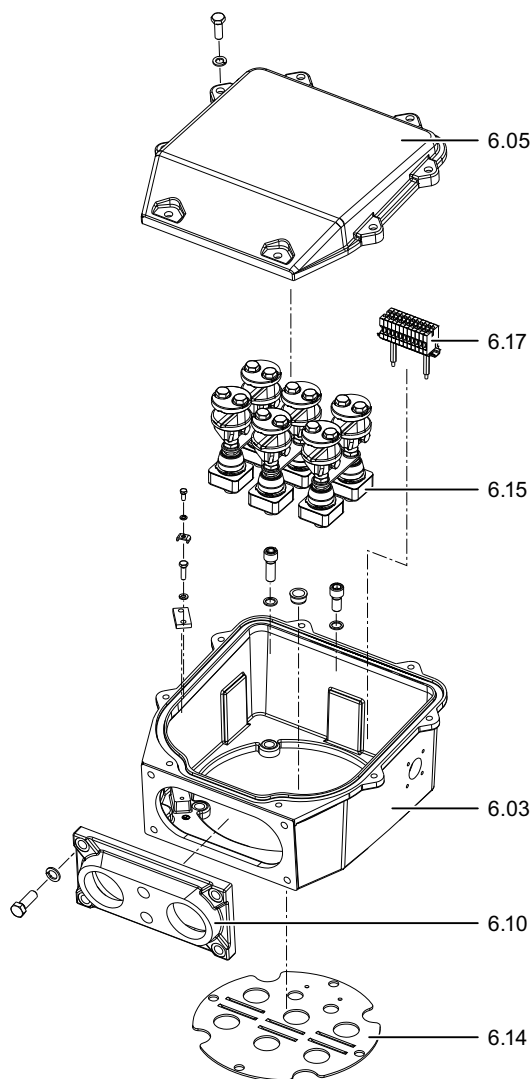


Image 10-6 E-9-101_285-0001

Part number	Designation	Part number	Designation
6.03	Terminal box base	6.14	Mounting plate
6.05	Terminal box cover	6.15	Gland terminal
6.07	Gland plate	6.17	Additional terminal
6.10	Cable gland		

Protecting the environment and preserving its resources are corporate goals of the highest priority for us. Our worldwide environmental management system to ISO 14001 ensures compliance with legislation and sets high standards in this regard. Environmentally friendly design, technical safety and health protection are always firm goals even at the product development stage.

Recommendations for the environmentally friendly disposal of the machine and its components are given in the following section. Be sure to comply with local disposal regulations.

11.1 RoHS - restricting the use of certain hazardous substances

In compliance with RoHS ("Restriction of certain Hazardous Substances") we replace substances that are damaging to the environment by those that are not based on state-of-the-art technology. In doing so, safety in operation and handling will take priority at all times.

Note

Country-specific legislation

When disposing of the machine or of waste that is created during the individual phases of its life cycle, please observe the statutory requirements applicable in the country of use.

11.2 Dismantling the machine

Dismantle the machine using the general procedures commonly used in mechanical engineering.

 WARNING
--

Machine parts can fall

The machine is made up of heavy parts. These parts are liable to fall during dismantling. This can result in death, serious injury or material damage.
--

Before you release any machine parts, secure them so that they cannot fall.

11.3 Disposal of components

Components

The machines consist mainly of steel and various proportions of copper and aluminum. Metals are generally considered to be unlimitedly recyclable.

Sort the components for recycling according to whether they are:

- Iron and steel
- Aluminum
- Non-ferrous metal, e.g. windings
The winding insulation is incinerated during copper recycling.
- Insulating materials
- Cables and wires
- Electronic waste

Process materials and chemicals

Sort the process materials and chemicals for recycling according to whether they are for example:

- Oil
- Grease
- Cleaning substances and solvents
- Paint residues
- Anti-corrosion agent
- Coolant additives such as inhibitors, antifreeze or biocides

Dispose of the separated components according to local regulations or via a specialist disposal company. The same applies for cloths and cleaning substances which have been used while working on the machine.

Packaging material

- If necessary, contact a suitable specialist disposal company.
- Wooden packaging for sea transport consists of impregnated wood. Observe the local regulations.
- The foil used for water-proof packaging is an aluminum composite foil. It can be recycled thermally. Dirty foil must be disposed of via waste incineration.

Service and Support

Technical queries or additional information



If you have any technical queries or you require additional information, please contact Technical Support (<https://support.industry.siemens.com/cs/ww/en/sc/2090>).

Please have the following data ready:

- Type
- Serial number

You can find this data on the rating plate.

Contact person



If you wish to request on-site service or order spare parts, please contact your local office. This office will contact the responsible service center on your behalf. You can find your contact person in the relevant contact database:

www.siemens.com/yourcontact (www.siemens.com/yourcontact)

Siemens Support for on the move



You can obtain optimum support anywhere you go using the "Siemens Industry Online Support" app. The app is available for Apple iOS, Android and Windows Phone.

Technical data and drawings

Bolt locking devices

- Refit nuts or bolts that are mounted together with locking, resilient, and/or force-distributing elements with identical, fully-functional elements when re-assembling. Always renew keyed elements.
- When screwing together threads secured with a liquid adhesive, use a suitable medium such as Loctite 243.

Tightening torques

The bolted connections with metal contact surfaces, such as end shields, bearing cartridge parts, terminal box parts bolted onto the stator frame, should be tightened to the following torques, depending on the thread size:

Table B-1 Tightening torques for bolted connections with a tolerance of $\pm 10\%$.

Case	M4	M5	M6	M8	M10	M12	M16	M20	M24	M30	M36	M42	M48	M56	
A	1.2	2.5	4	8	13	20	40	52	80	150	-	-	-	-	Nm
B	1.3	2.6	4.5	11	22	38	92	180	310	620	108 0	170 0	260 0	420 0	Nm
C	3	5	8	20	40	70	170	340	600	120 0	200 0	310 0	470 0	750 0	Nm

Applications

The above-mentioned tightening torques apply for the following applications:

- Case A
Applies to electrical connections in which the permissible torque is normally limited by the bolt materials and/or the current carrying capacity of the insulators, with the exception of the busbar connections in case B.
- Case B
Applies to bolts screwed into components made from materials with lower property class (e. g. aluminum) and to bolts with property class 8.8 according to ISO 898-1.
- Case C
Applies to bolts with property class 8.8 or A4-70 according to ISO 898-1, however only to bolts screwed into components made from materials with higher property class, e.g. cast iron, steel or cast steel.

Note

Non-standard tightening torques

Different tightening torques for electrical connections and bolted connections for parts with flat seals or insulating parts are specified in the relevant sections and drawings.

C

Quality documents

C.1 EC Declaration of Conformity

SIEMENS

EU-Konformitätserklärung

(nach der EU-Richtlinie 2014/35/EU)

Hersteller: Siemens Aktiengesellschaft
 Division Process Industries and Drives, Large Drives PD LD

Anschrift: Hans-Loher-Straße 32
 D-94099 Ruhstorf a. d. Rott

Produktbezeichnung: Drehstrom-Niederspannungsmaschinen
 Typ / type:
 AN.. AM.. AV.. AG.. AS.. AF.. AB.. AW.. BN..
 DN.. EM.. EN.. JN.. JB.. JG.. JS.. L... Z... MN..
 Alternative Typenbezeichnung / alternative type
 1R.6.. 1S.6.. 1PS.. 1MD..

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:

Niederspannungsrichtlinie:

2014/35/EU Richtlinie 2014/35/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die Bereitstellung elektrischer Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen auf dem Markt, Amtsblatt der EU L96, 29.03.2014, S. 357–374

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.

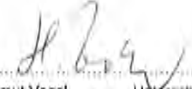
Wir bestätigen die Konformität des oben genannten Produktes mit den Normen:

Referenznummer / Reference number	Ausgabedatum / Output date	Referenznummer / Reference number	Ausgabedatum / Output date
EN 60034-1	2010	EN 60034-9	2005
EN 60034-5	2001	EN 60034-11	2004
EN 60034-6	1993	EN 60034-12	2002
EN 60034-7	1993	EN 60034-14	2004
EN 60034-8	2007	EN 60204-1	2006

Ruhstorf, den 08.04.2016

Siemens Aktiengesellschaft

i.V. 
 Fritz Winkler Unterschrift/Signature
 Werksleiter/Head of Manufacturing

i.V. 
 Dr. Hartmut Vogel Unterschrift/Signature
 Produktsicherheitsbeauftragter / Product safety officer

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien, ist jedoch keine Beschaffenheits- oder Haltbarkeitsgarantie. Die Sicherheitshinweise der mitgelieferten Produktdokumentation sind zu beachten.

Siemens Aktiengesellschaft: Vorsitzender des Aufsichtsrats: Gerhard Cromme; Vorstand: Joe Kaeser, Vorsitzender; Roland Busch, Lisa Davis, Klaus Helmrich, Janina Kugel, Siegfried Russwurm, Ralf P. Thomas; Sitz der Gesellschaft: Berlin und München, Deutschland; Registergericht: Berlin Charlottenburg, HRB 12300, München, HRB 6684; WEEE-Reg.-Nr. DE 23891322

SIEMENS

Englisch / English

EU Declaration of Conformity (in accordance with EU Directive 2014/35/EU)

Manufacturer, Address and Product identification: see Page 1

The object of the declaration described above is in conformity with the relevant EU harmonization legislation:

Low Voltage directive:

2014/35/EU Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits, Official Journal of the EU L96, 29/03/2014, p. 357–374

This declaration of conformity is issued under the sole responsibility of the manufacturer.

We confirm conformity of the product indicated above with the standards: see Page 1

This declaration certifies compliance with the directives named above, but does not guarantee any specific properties or durability. The safety information and instructions in the supplied product documentation must be carefully observed.

Französisch / français

Déclaration de conformité UE (selon la directive 2014/35/EU)

Constructeur, Adresse, Désignation du produit: sur la page 1

Le produit sus-mentionné de la déclaration est conforme à la législation communautaire d'harmonisation pertinente :

Directive basse tension

2014/35/CE Directive du Parlement européen et du Conseil du 26 février 2014 relative à l'harmonisation des législations des États membres concernant la mise à disposition sur le marché du matériel électrique destiné à être employé dans certaines limites de tension, Journal officiel de l'UE L96, 29.03.2014, p. 357–374

Le fabricant est seul responsable de l'établissement de cette déclaration de conformité.

Nous certifions la conformité du produit mentionné ci-dessus avec les normes: sur la page 1

Cette déclaration atteste la conformité avec la directive mentionnée mais ne tient pas lieu de garantie de qualité ni de longévité. Respecter les consignes de sécurité figurant dans la documentation produit fournie.

Spanisch / español

Declaración UE de conformidad (según la Directiva 2014/35/UE)

Fabricante, dirección, identificación del producto: véase página 1

El producto arriba mencionado es conforme a la legislación de armonización de la Unión pertinente:

Directiva de baja tensión:

2014/35/EU Directiva del Parlamento Europeo y del Consejo de 26 de febrero de 2014 sobre la armonización de las legislaciones de los Estados miembros en materia de comercialización de material eléctrico destinado a utilizarse con determinados límites de tensión, Diario Oficial de la Unión Europea L96, 29.03.2014, págs. 357–374

La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante.

Confirmamos que el producto especificado cumple las siguientes normas: véase página 1

Esta declaración certifica el cumplimiento de las directivas mencionadas pero no garantiza las características ni la durabilidad. Deben observarse las consignas de seguridad de la documentación de producto suministrada.

SIEMENS

Italienisch / italiano

Dichiarazione di conformità UE (secondo la Direttiva 2014/35/EU)

Costruttore, Indirizzo, Denominazione di prodotto: vedi pagina 1

L'oggetto descritto sopra della presente dichiarazione soddisfa le prescrizioni specifiche sulla armonizzazione delle leggi dell'Unione Europea :

Direttiva sulla bassa tensione:

2014/35/EU Direttiva 2014/35/EU del Parlamento Europeo e del Consiglio del 26 febbraio 2014 concernente l'armonizzazione della normativa degli Stati membri relativa alle apparecchiature elettriche destinate all'uso entro determinati limiti di tensione sul mercato.. Gazzetta Ufficiale dell'UE L96, 29.03.2014, p. 357–374

La stesura della presente dichiarazione di conformità è soggetta all'esclusiva responsabilità del costruttore.

Si certifica la conformità del prodotto sopra nominato alle norme seguenti: vedi pagina 1

La presente dichiarazione certifica la conformità alle direttive specificate, ma non costituisce una garanzia di qualità o di durata. Sono da osservare le avvertenze di sicurezza contenute nelle documentazioni dei rispettivi prodotti.

Schwedisch / svenska

EG-försäkran om överensstämmelse (enligt EG-direktiv 2014/35/EG)

Tillverkare, Adress, Produktbeteckning: Se sidan 1

Det ovan beskrivna föremålet i försäkran överensstämmer med den relevanta harmoniserade gemenskapslagstiftningen:

Lågspänningsdirektiv:

2014/35/EG Europaparlamentets och rådets direktiv 2014/35/EG av den 26 februari 2014 om harmonisering av medlemsstaternas lagstiftning om tillhandahållandet på marknaden av elektrisk utrustning avsedd för användning inom vissa spänningsgränser, Europeiska unionens officiella tidning L96, 29.03.2014, s. 357–374

Tillverkaren bär ensam ansvaret för utfärdandet av denna försäkran om överensstämmelse.

Vi intygar den ovan nämnda produktens överensstämmelse med standarderna: Se sidan 1

Denna försäkran intygar överensstämmelse med de nämnda direktiven, men är dock ingen kvalitets- eller hållbarhetsgaranti. Säkerhetsanvisningarna i den bifogade produktokumentationen ska följas.

Finnisch / suomi

EU-vaatimustenmukaisuusvakuutus (EU-direktiivin 2014/35/EU mukaan)

Valmistaja, Osoite, Tuotenimike: ks. sivu 1

Edellä kuvattu vakuutuksen kohde on unionin sovellettavan yhdenmukaistamislainsäädännön mukainen:

Pienjännitedirektiivi:

2014/35/EU Euroopan parlamentin ja neuvoston direktiivi 2014/35/EU, annettu 26 päivänä helmikuuta 2014, tietyllä jännitealueella toimivien sähkölaitteiden asettamista saataville markkinoilla koskevan jäsenvaltioiden lainsäädännön yhdenmukaistamisesta, EU:n virallinen lehti L96, 29.03.2014, s. 357–374

Vastuu tämän vaatimustenmukaisuusvakuutuksen laadinnasta on yksinomaan valmistajalla.

Vahvistamme, että edellä mainittu tuote vastaa seuraavia standardeja: ks. sivu 1

Tämä vakuutus todistaa yhdenmukaisuuden mainittujen direktiivien kanssa, mutta se ei anna takuuta ominaisuuksista tai kestävytydestä. Tuotteen mukana toimitetun dokumentaation turvallisuusohjeita on noudatettava.

SIEMENS

Dänisch / dansk

EU-overensstemmelseserklæring (i henhold til EU-direktiv 2014/35/EU)

Fabrikant, Adresse, Produktbetegnelse: se side 1

Genstanden for erklæringen, som beskrevet ovenfor, er i overensstemmelse med den relevante EU-harmoniseringslovgivning:

Lavspændingsdirektiv:

2014/35/EU Europa-Parlamentets og Rådets direktiv 2014/35/EU af 26. februar 2014 om harmonisering af medlemsstaternes love om tilgængeliggørelse på markedet af elektrisk materiel bestemt til anvendelse inden for visse spændingsgrænser, Den Europæiske Unions Tidende EU L96, 29.03.2014, s. 357–374

Denne overensstemmelseserklæring udstedes på fabrikantens ansvar.

Vi bekræfter det ovennævnte produkts overensstemmelse med standarderne: se side 1

Denne erklæring gælder som dokumentation for overensstemmelse med de nævnte direktiver men er dog ingen beskaftnings- eller holdbarhedsgaranti. Sikkerhedshenvisningerne i den medleverede produktinformation skal overholdes.

Niederländisch / Nederlandse

EU-verklaring van overeenstemming (volgens EU-richtlijn 2014/35/EU)

Fabrikant, Adres, Productbenaming: zie pagina 1

Het hierboven beschreven voorwerp van de verklaring voldoet aan de toepasselijke voorschriften van het harmonisatierecht van de unie:

laagspanningsrichtlijn:

2014/35/EU Richtlijn 2014/35/EU van het Europees Parlement en de Raad van 26 februari 2014 betreffende de harmonisatie van de wetgevingen van de lidstaten inzake het op de markt aanbieden van elektrisch materiaal bestemd voor gebruik binnen bepaalde spanningsgrenzen op de markt, publicatieblad van de EU L96, 29.03.2014, p. 357–374

De fabrikant is als enige verantwoordelijk voor de opstelling van deze verklaring van overeenstemming.

Wij bevestigen de overeenstemming van het bovengenoemde product met de normen: zie pagina 1

Aanwijzing: Vermeldingen inzake EMC-geschiedte installaties en voor gebruik overeenkomstig bestemming en verdere relevante aanwijzingen in de bijgeleverde productinformatie, alsmede de betreffende aansluitingseisen moeten in acht worden genomen.

Portugiesisch / português

Declaração de conformidade CE (segundo a Directiva 2014/35/UE)

Fabricante, Endereço, Designação do produto: ver pág. 1

O objecto da declaração acima mencionada está em conformidade com a legislação comunitária aplicável em matéria de harmonização:

Directiva “baixa tensão”:

2014/35/UE Directiva 2014/35/UE do Parlamento Europeu e do Conselho de 26 de Fevereiro de 2014, relativa à harmonização das legislações dos Estados-Membros no domínio do material eléctrico destinado a ser utilizado dentro de certos limites de tensão, Jornal Oficial da União Europeia L96, 29.03.2014, pp. 357–374

A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante.

Atestamos a conformidade do produto supracitado com as seguintes normas: ver pág. 1

A presente declaração atesta a conformidade com as directivas mencionadas, no entanto, não constitui uma garantia de qualidade ou termo de validade. Devem ser observadas as indicações de segurança da documentação do produto juntamente fornecida.

SIEMENS

Griechisch / ελληνική γλώσσα

Δήλωση συμμόρφωσης ΕΕ (σύμφωνα με την Κοινοτική Οδηγία 2014/35/ΕΕ)

Κατασκευαστής, Διεύθυνση, Ονομασία προϊόντος: Βλέπε σελίδα 1

Το ως άνω περιγραφόμενο προϊόν της δήλωσης πληροί τους ισχύοντες κανονισμούς εναρμόνισης της Ευρωπαϊκής Ένωσης:

Οδηγία περί χαμηλής τάσης:

2014/35/ΕΕ Οδηγία 2014/35/ΕΕ του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου της 26ης Φεβρουαρίου 2014 για την εναρμόνιση των νομοθεσιών των κρατών μελών σχετικά με τη διαθεσιμότητα στην αγορά ηλεκτρολογικού υλικού που προορίζεται να χρησιμοποιηθεί εντός ορισμένων ορίων τάσης, επίσημη Εφημερίδα της ΕΕ L96, 29.03.2014, σελ. 357–374

Την αποκλειστική ευθύνη για την έκδοση την παρούσας Δήλωσης συμμόρφωσης την φέρει ο κατασκευαστής.

Επιβεβαιώνουμε τη συμμόρφωση του ως άνω αναφερόμενου προϊόντος με τα πρότυπα: Βλέπε σελίδα 1

Η παρούσα δήλωση πιστοποιεί τη συμφωνία με τις αναφερόμενες Κοινοτικές Οδηγίες, ωστόσο δεν αποτελεί εγγύηση καλής κατάστασης ή διάρκειας ζωής. Πρέπει να τηρούνται οι οδηγίες ασφαλείας της συνοδευτικής τεκμηρίωσης προϊόντος.

Polnisch / polszczyzna

Deklaracja zgodności UE (zgodna z Dyrektywą 2014/35/UE)

Producent, Adres, Oznaczenie produktu: patrz strona 1

Opisany wyżej przedmiot deklaracji spełnia odnośne harmonizujące przepisy prawa Unii:

Dyrektywa niskonapięciowa:

2014/35/UE Dyrektywa 2014/35/UE Parlamentu Europejskiego i Rady z dnia 26 lutego 2014 w sprawie harmonizacji ustawodawstw państw członkowskich odnoszących się do udostępniania na rynku sprzętu elektrycznego przewidzianego do stosowania w określonych granicach napięcia, Dziennik Urzędowy UE L96, 29.03.2014, str.357–374

Wyłączną odpowiedzialność za wystawienie niniejszej deklaracji zgodności ponosi producent.

Potwierdzamy zgodność wyżej wymienionego produktu z normami: patrz strona 1

Niniejsza deklaracja potwierdza zgodność z wymienionymi dyrektywami, nie jest jednak gwarancją jakości lub trwałości. Należy przestrzegać wskazań dotyczących bezpieczeństwa zawartych w dostarczonej dokumentacji wyrobu.

Litauisch / lietuvių

EB atitikties deklaracija (pagal ES direktyvą 2014/35/ES)

Gamintojas, Adresas, Gaminio pavadinimas: žr. p. 1

Deklaracijoje pirmiau aprašytas daiktas atitinka tam tikras Europos Sąjungos konsoliduotus teisės aktus:

Žemosios įtampos direktyva:

2014/35/ES 2014 m. vasario 26 d. Europos Parlamento ir Tarybos direktyva 2014/35/ES dėl valstybių narių įstatymų, susijusių su tam tikrose įtampos ribose skirtų naudoti elektros įrenginių tiekimo rinkai, ES oficialus biuletenis L96, 2014-03-29, p. 357–374

Vienintelė atsakomybė už šios atitikties deklaracijos išdavimą tenka gamintojui.

Patvirtiname, kad pirmiau nurodytas gaminys atitinka standartus: žr. p. 1

Ši deklaracija patvirtina atitikimą nurodytoms direktyvoms, tačiau nėra parametru arba patvarumo garantija. Laikykitės pridėtoje gaminio dokumentacijoje esančių saugos nurodymų.

SIEMENS

Lettisch / latviešu

ES atbilstības deklarācija (saskaņā ar ES Direktīvu 2014/35/ES)

Ražotājs, Adrese, Izstrādājuma nosaukums: skatīt 1. lappusi

Augstāk aprakstītais deklarācijas priekšmets atbilst attiecīgajiem Eiropas Savienības saskaņotajiem tiesību aktiem:

Zemsprieguma direktīva:

2014/35/ES Eiropas Parlamenta un Padomes Direktīva 2014/35/ES (2014. gada 26. februāris) par dalībvalstu tiesību aktu saskaņošanu attiecībā uz tādu elektroiekārtu pieejamību tirgū, kas paredzētas lietošanai noteiktās sprieguma robežās, ES OV L96, 29.03.2014., 357.–374. lpp.

Šī atbilstības deklarācija ir izdota vienīgi uz ražotāja atbildību.

Mēs apliecinām augstāk minētā izstrādājuma atbilstību šādiem standartiem: skatīt 1. lappusi

Šī deklarācija apliecina ražojuma atbilstību minētajām direktīvām, tomēr tā nav uzskatāma par aprakstīto īpašību vai kalpošanas laika atbilstības garantiju. Ievērot klāt pievienotajā izstrādājuma dokumentācijā sniegtās drošības norādes.

Estnisch / eesti keel

EÜ vastavusdeklaratsioon (vastavalt ELi direktiivile 2014/35/EL)

Tootja, Postiaadress, Toote nimetus: vt lk 1

Deklaratsioonil ülalkirjeldatud ese vastab Liidu asjaomastele harmoniseerimis-õiguseeskirjadele:

Madalpingedirektiiv:

2014/35/EL Euroopa Parlamendi ja nõukogu direktiiv 26. veebruarist 2014 liikmesriikide õiguseeskirjade harmoniseerimise kohta turul teatud pingepiiridega elektriliste kütusvahendite kättesaadavaks tegemiseks seonduvalt; ELi ametileht L96, 29.03.2014, S.357–374

Käesoleva vastavusdeklaratsiooni väljaandmise eest kannab ainuisikulist vastutust tootja.

Me kinnitame ülalnimetatud toote vastavust normidele: vt lk 1

Käesolev deklaratsioon tõendab kooskõla nimetatud direktiividega, kuid ei kujuta endast omaduste või vastupidavuse garantiid. Kaasapandud tootedokumentatsioon esitatud ohutusjuhistest tuleb kinni pidada.

Tschechisch / český jazyk

Prohlášení o shodě EU (v souladu se směrnicí 2014/35/EU)

Výrobce, Adresa, Označení výrobku: viz str. 1

Výše popsáný předmět prohlášení splňuje příslušné harmonizační právní předpisy Unie:

Směrnice o elektrických zařízeních určených pro používání v určitých mezích napětí:

2014/35/EU Směrnice 2014/35/EU Evropského parlamentu a Rady ze dne 26. února 2014 o harmonizaci právních předpisů členských států týkajících se dodávání elektrických zařízení určených pro používání v určitých mezích napětí na trh, úřední věstník EU L96, 29. 3. 2014, str. 357–374

Výrobce nese výlučnou odpovědnost za vydání tohoto prohlášení o shodě.

Potvrzujeme shodu výše uvedeného výrobku s normami: viz str. 1

Toto prohlášení potvrzuje shodu s uvedenými směrnici, nejedná se však o záruku vlastností nebo životnosti. Je třeba dbát bezpečnostních pokynů v dodané dokumentaci k výrobku.

SIEMENS

Slowakisch / slovenský jazyk

Vyhlasenie o zhode EÚ (v súlade so smernicou 2014/35/EU)

Výrobca, Adresa, Označenie výrobku: viď str. 1

Vyššie popísaný predmet vyhlásenia spíňa príslušné harmonizačné právne predpisy Únie:

Smernica o elektrických zariadeniach určených na používanie v rámci určitých limitov napätia:

2014/35/EU Smernica Európskeho parlamentu a Rady z 26. februára 2014 o zosúladení právnych predpisov členských štátov týkajúcich sa sprístupnenia elektrického zariadenia určeného na používanie v rámci určitých limitov napätia na trhu, úradný vestník EÚ L96, 29. 3. 2014, str. 357–374

Výrobca nesie výlučnú zodpovednosť za vydanie tohoto vyhlásenia o zhode.

Potvrdzujeme zhodu vyššie uvedeného výrobku s normami: viď str. 1

Toto vyhlásenie potvrdzuje zhodu s uvedenými smernicami, nejedná sa však o záruku vlastností alebo životnosti. Je potrebné dbať na bezpečnostné pokyny v dodanej dokumentácii.

Ungarisch / magyar nyelv

EU-megfelelőségi nyilatkozat (a 2014/35/EU irányelv szerint)

Gyártó, Postacím, Termék megnevezés: lásd 1. oldal

A nyilatkozat fent megnevezett tárgya teljesíti az Unió vonatkozó harmonizált jogszabályait:

Kisfeszültségre vonatkozó irányelv:

2014/35/EU Az Európai Parlament és a Tanács 2014/35/EU irányelve (2014. február 26.) a meghatározott feszültséghatáron belüli használatra tervezett elektromos berendezések forgalmazására vonatkozó tagállami jogszabályok harmonizációjáról, az Európai Unió Hivatalos Lapja L96, 2014.03.29, 357–374. oldal

Ezen megfelelőségi nyilatkozat kiállításának egyedüli felelőse a gyártó.

Ezennel kijelentjük, hogy a fent nevezett termék megfelel a következő szabványoknak lásd 1. oldal

Ez a nyilatkozat tanúsítja a nevezett irányelveknek való megfelelést, de semmilyen minőségi- vagy tartóssági garanciát nem jelent. A csatolt termékdokumentációban szereplő biztonsági utasításokat figyelembe kell venni.

Slowenisch / slovenščina

EU izjava o skladnosti (v skladu z direktivo EU 2014/35/EU)

Proizvajalec, Naslov, Opis izdelka: glej stran 1

Zgoraj opisani predmet izjave izpolnjuje zadevne usklajevalne pravne predpise unije:

Niskonapetostna direktiva:

2014/35/EU Direktiva 2014/35/EU Evropskega parlamenta in Sveta z dne 26. februarja 2014 za usklajevanje pravnih predpisov držav članic o pripravljani električne opreme za uporabo znotraj določenih napetostnih omejitev na trgu, Uradni list EU L96, 29.03.2014, str. 357–374

Proizvajalec nosi izključno odgovornost za izdajo te izjave o skladnosti.

Potrjujemo, da je zgoraj imenovani izdelek skladen z naslednjimi standardi: glej stran 1

Ta izjava predstavlja potrdilo o skladnosti z navedenimi direktivami, vendar ne predstavlja garancije za kakovost ali trpežnost. Upoštevajte varnostne napotke iz dostavljene dokumentacije o izdelku.

SIEMENS

Rumänisch / România

Declarație de conformitate UE (conform Directivei UE 2014/35/UE)

Producător, Adresă, Denumirea produsului: Vezi pagina 1

Obiectul declarației descris mai sus este în conformitate cu legislația relevantă de armonizare a Uniunii Europene:

Directiva privind echipamentele de joasă tensiune:

2014/35/UE Directiva 2014/35/UE a Parlamentului European și a Consiliului din 26 februarie 2014 privind armonizarea legislațiilor statelor membre referitoare la punerea la dispoziție pe piață a echipamentelor electrice destinate utilizării în cadrul unor anumite limite de tensiune, în Jurnalul Oficial al UE L96, 29.03.2014, pag. 357–374

Producătorul poartă răspunderea exclusivă pentru întocmirea acestei declarații de conformitate.

Confirmăm conformitatea produsului menționat mai sus cu normele: Vezi pagina 1

Această declarație atestă conformitatea cu directivele menționate, însă nu reprezintă o garanție de calitate sau de durabilitate. Se vor respecta indicațiile de siguranță din documentația atașată a produsului.

Bulgarisch / български език

ЕС Декларация за съответствие (съгласно ЕС-Директива 2014/35/ЕС)

Производител, Адрес, Обозначение на продукта: Вж. стр. 1

Гореописаният предмет на декларацията изпълнява основните юридически регламенти на съюза за хармонизиране:

Директива за ниското напрежение:

2014/35/ЕС Директива 2014/35/ЕС на Европейския парламент и на Съвета от 26 февруари 2014 за хармонизиране на юридическите регламенти на страните членки за предоставянето на електрически работни средства за използване в рамките на определени граници на напрежението; Официален вестник на EU L96, 29.03.2014, С. 357–374

Самата отговорност за издаването на тази декларация за съответствие се носи от производителя.

Ние потвърждаваме съответствието на горепосочения продукт със стандартите: Вж. стр. 1

Тази декларация удостоверява съответствието с посочените директиви, но не е гаранция за характеристики или трайност. Трябва да се вземат под внимание указанията за безопасност на доставената продуктова документация.

Kroatisch / hrvatski jezik

EU - izjava proizvođača o sukladnosti proizvoda (u skladu s Direktivom EU-a

2014/35/EU)

Proizvođač, Adresa, Oznaka proizvoda: pogledajte stranicu 1

Gore navedeni predmet u izjavi ispunjava pravne propise o harmonizaciji Unije:

Direktiva o niskom naponu:

2014/35/EU Direktiva 2014/35/EU Europskog parlamenta i Vijeća od 26. veljače 2014. o harmonizaciji pravnih propisa država članica o pripremi električnih radnih sredstava za uporabu u okviru određenih granica napona na tržištu, Službeni list EU-a L96, 29.03.2014., str. 357–374

Proizvođač snosi isključivu odgovornost za izdavanje ove izjave o sukladnosti proizvoda.

Potvrđujemo usklađenost gore navedenog proizvoda s normama: pogledajte stranicu 1

Ova izjava potvrđuje usklađenost s navedenim direktivama, ali nije jamstvo određenih radnih svojstava ili trajnosti proizvoda. Morate se pridržavati sigurnosnih napomena u isporučenoj dokumentaciji o proizvodu.

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SIEMENS

Maltesisch / Malti

Dikjarazzjoni ta' Konformità tal-UE (skont id-Direttiva tal-UE 2014/35/UE)

Manifattur, Indirizz, Denominazzjoni tal-prodott: Ara pagna 1

L-għan tad-dikjarazzjoni deskritta hawn fuq huwa f'konformità mal-legiżlazzjoni rilevanti tal-UE dwar l-armonizzazzjoni:

Id-Direttiva dwar il-Voltaġġ Baxx:

2014/35/UE Direttiva 2014/35/UE tal-Parlament Ewropew u tal-Kunsill tas-26 ta' Frar 2014 dwar l-armonizzazzjoni tal-liġijiet tal-Istati Membri relattivament għat-tqegħid fis-suq ta' tagħmir elettriku ddisinjat għall-użu fi hdan ċerti limiti tal-voltaġġ, il-Ġurnal Uffiċjali tal-UE, L96, 29/03/2014, p. 357–374

Din id-dikjarazzjoni ta' konformità tinhareġ taħt ir-responsabbiltà unika tal-manifattur.

Nikkonfermaw il-konformità tal-prodott imsemmi hawn fuq mal-istandards: Ara pagna 1

Din id-dikjarazzjoni tiċcertifika l-konformità mad-direttivi msemmija hawn fuq, iżda ma tiggarrantix xi proprjetajiet jew durabbiltà speċifika. L-informazzjoni dwar is-sigurtà u l-istruzzjonijiet fid-dokumentazzjoni dwar il-prodott fornita għandhom jiġu segwiti sew.

Norwegisch / Norsk

EU-konformitetserklæring (i henhold til EU-direktiv 2014/35/EU)

Produsent, Adresse, Produktbetegnelse: se side 1

Ovenfornevnte gjenstand for denne konformitetserklæringen er i samsvar med relevante rettslige harmoniseringsforskrifter fra Den europeiske union:

Lavspenningsdirektiv:

2014/35/EU Europaparlamentets og Europarådets direktiv 2014/35/EU av 26. februar 2014 angående harmonisering av medlemslandenes rettslige forskrifter om tilveiebringelse av elektriske driftsmidler for bruk innen bestemte spenningsgrenser på markedet, EUs lysingsblad L96, 29.03.2014, s. 357–374

Produsenten er ene og alene ansvarlig for utstedelsen av denne konformitetserklæringen.

Vi bekrefter at ovenfornevnte produkt er i samsvar med følgende normer: se side 1

Denne erklæringen bekrefter at det foreligger konformitet med de nevnte direktivene, men det gis ingen garantier for beskaffenhet eller holdbarhet. Sikkerhetsmerknadene for de medfølgende produktene må tas hensyn til.

Russisch / русский язык

Декларация соответствия ЕС (согласно директиве 2014/35/ЕС)

Производитель, Адрес, Наименование изделия: См. страница 1

Описанный выше предмет декларации соответствует применимым нормам ЕС по гармонизации требований:

директива по низковольтному оборудованию:

2014/35/ЕС Директива 2014/35/ЕС Европейского парламента и Европейского совета от 26 февраля 2014 г. о гармонизации нормативных актов стран-членов относительно подготовки электрического оборудования к использованию на рынке в определенном диапазоне напряжения, Вестник ЕС, L96, 29.03.2014, стр. 357–374

Исключительную ответственность за составление настоящей декларации соответствия несёт производитель. Подтверждается соответствие указанного выше изделия требованиям стандартов: См. страница 1

Настоящая декларация удостоверяет соответствие указанным директивам, но не гарантирует каких-либо свойств или устойчивости. Необходимо соблюдение указаний по технике безопасности, приведённых в прилагаемой к документации об изделии.

C.2 EC Declaration of Conformity, Zone 21 or 22

SIEMENS

EG/EU-Konformitätserklärung

(nach Anhang VII der EG-Richtlinie 94/9/EG bzw. EU-Richtlinie 2014/34/EU)

Nr. A5E35855445A

Hersteller: Siemens Aktiengesellschaft
Division Process Industries and Drives, Large Drives, PD LD

Anschrift: Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Produktbezeichnung: Drehstrom-Asynchronmaschinen
Zündschutzart Geräte-Staubexplosionsschutz durch Gehäuse „tb“
Typ: A ... 071 ... bis / to A ... 800 ...
E ... 071 ... bis / to E ... 800 ...
D ... 071 ... bis / to D ... 910 ...

Alternative Typbezeichnung:
1PS.07. bis / to 1PS.91.
1MD.07. bis / to 1MD.35.
1MV.35. bis / to 1MV.91.

Gerätegruppe II, Gerätekategorie 2D

Notifizierte Stelle: siehe Anhang
Drittstellenzertifikat: siehe Anhang

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:

bis 19.04.2016 EG-Richtlinie 94/9/EG:

Richtlinie des Europäischen Parlaments und des Rates vom 23. März 1994 zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen

ab 20.04.2016 EU-Richtlinie 2014/34/EU:

Richtlinie des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen. Amtsblatt der EU L96, 29.03.2014, S. 309-356

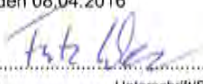
Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.


Wir bestätigen die Konformität des oben genannten Produktes mit den Normen:

Referenznummer	Ausgabedatum	Referenznummer	Ausgabedatum
EN 60079-0+A11	2013	EN 60079-31	2014

Das bezeichnete Produkt ist bestimmt zum Einbau in eine andere Maschine für den Einsatz in explosionsgefährdeten Bereichen der Zone 21 nach EN 60079-10-2 und Richtlinie 1999/92/EG. Weitere Angaben über die Einhaltung dieser Richtlinie enthält der Anhang, der ein integraler Bestandteil dieser Konformitätserklärung ist.

Siemens Aktiengesellschaft
Ruhstorf, den 08.04.2016

i.V. 
Fritz Winkler Unterschrift/Signature
Werksleiter/Head of Manufacturing

i.V. 
Dr. Hartmut Vogel Unterschrift/Signature
Produktsicherheitsbeauftragter / Product safety officer

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinie(n), ist jedoch keine Beschaffenheits- oder Haltbarkeitsgarantie.
Die Sicherheitshinweise der mitgelieferten Produktdokumentation sind zu beachten.

Siemens Aktiengesellschaft: Vorsitzender des Aufsichtsrats: Gerhard Cromme; Vorstand: Joe Kaeser, Vorsitzender; Roland Busch, Lisa Davis, Klaus Heinrich, Janina Kugel, Siegfried Russwurm, Ralf P. Thomas; Sitz der Gesellschaft: Berlin und München, Deutschland; Registergericht: Berlin Charlottenburg, HRB 12300, München, HRB 6684; WEEE-Reg.-Nr. DE 23691322



Englisch / English

EC/EU Declaration of Conformity (according to Annex VII of EC Directive 94/9/EC, 2014/34/EU)

Manufacturer: *Siemens Aktiengesellschaft
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott*

The object of the declaration described above is in conformity with the relevant Union harmonization legislation:

≤ 19.04.2016 94/9/EC:

Directive of the European Parliament and the Council on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres.

≥ 20.04.2016 2014/34/EU:

Directive of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres. Official Journal of the EU, L96 29.03.2014, p. 309-356

This declaration of conformity is issued under the sole responsibility of the manufacturer.

We confirm conformity of the product indicated above with the standards: see page 1 and annex

The product indicated is intended to be installed in another machine for use in hazardous areas of zone 21 in accordance with EN 60079-10-2 and Directive 1999/92/EC. Further information about the conformity to this Directive is given in the annex, which is an integral part of this declaration of conformity.

This declaration is an attestation of conformity with the indicated Directive(s) but does not imply any guarantee of quality or durability. The safety instructions of the accompanying product documentation shall be observed.

Tschechisch / český jazyk

Prohlášení o shodě s předpisy ES/EU (podle dodatku VII směrnice EU 94/9/ES, 2014/34/EU)

Výrobce: *Siemens Aktiengesellschaft
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott*

Výše uvedený výrobek se shoduje s předpisy následujících harmonizovaných předpisů Evropské unie:

≤ 19.04.2016 94/9/ES:

směrnice Evropského parlamentu a Rady o sjednocení legislativy členských států EU týkající se přístrojů a ochranných systémů za účelem jejich správného používání v oblastech ohrožených explozí.

≥ 20.04.2016 2014/34/EU:

směrnice Evropského parlamentu a Rady ze dne 26. února 2014 o harmonizaci legislativy členských států EU týkající se zařízení a ochranných systémů za účelem jejich správného používání v oblastech ohrožených nebezpečím výbuchu. Oficiální tisk EU, L96 29.03.2014, str. 309-356.

Veškerou odpovědnost za vystavení tohoto Prohlášení o shodě nese výrobce produktu.

Potvrzujeme tímto, že se výše uvedený výrobek shoduje s normami: viz strana 1 a příloha

Uvedený výrobek je určen pro instalaci do jiných strojů pro použití v nebezpečných oblastech zóny 21 podle normy EN 60079-10-2 a směrnice 1999/92/EG. Další informace o shodě podle této směrnice jsou uvedeny v příloze, která je nedílnou součástí tohoto prohlášení o shodě.

Toto prohlášení potvrzuje shodu s uvedenými směrnicemi, neznamená však záruku jakosti nebo trvanlivosti. Musí být dodržovány bezpečnostní pokyny uvedené v doprovodné dokumentaci tohoto produktu.

SIEMENS

Dänisch / dansk

EF-overensstemmelseserklæring (i henhold til bilag VII i EF-direktivet 94/9/EF, 2014/34/EU)

Fabrikant: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Genstanden for erklæringen, som beskrevet ovenfor, er i overensstemmelse med den relevante EU-harmoniseringslovgivning:

≤ 19.04.2016 94/9/EF:

Directive of the European Parliament and the Council on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres.

≥ 20.04.2016 2014/34/EU:

Europa-Parlamentets og Rådets direktiv 2014/34/EU af 26. februar 2014 om harmonisering af medlemsstaternes love om materiel og sikringsystemer til anvendelse i en potentielt eksplosiv atmosfære. Den Europæiske Unions Tidende EU, L96 29.03.2014, s. 309-356

Denne overensstemmelseserklæring udstedes på fabrikantens ansvar.

Vi bekræfter det ovennævnte produkts overensstemmelse med standarderne: se side 1 og bilag

Det beskrevne produkt er bestemt til indbygning i en anden maskine til indsats i eksplosive områder i zone 21 i overensstemmelse med EN 60079-10-2 og direktiv 1999/92/EF. Yderligere oplysninger om overensstemmelsen med dette direktiv findes i bilaget, som er en integreret del af denne overensstemmelseserklæring.

Denne erklæring gælder som dokumentation for overensstemmelse med de nævnte direktiver men er dog ingen beskaeffenheds- eller holdbarhedsgaranti. Sikkerhedshenvisningerne i den medleverede produktinformation skal overholdes.

Estnisch / eesti keel

ELi vastavusdeklaratsioon (vastavalt EÜ direktiivi 94/9/EÜ, 2014/34/EL lisale VII)

Tootja: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Deklaratsiooni ülkirjeldatud ese on kooskõlas Liidu asjaomase harmoniseeritud seadusandlusega:

≤ 19.04.2016 94/9/EÜ:

Euroopa Parlamendi ja Nõukogu direktiiv plahvatusohtlikus keskkonnas kasutatavaid seadmeid ja kaitsesüsteeme käsitlevate liikmesriikide õigusaktide ühtlustamise kohta.

≥ 20.04.2016 2014/34/EL:

Euroopa Parlamendi ja nõukogu direktiiv 26. veebruarist 2014 liikmesriikide seaduste harmoniseerimise kohta varustuse ja kaitsesüsteemide kohta, mis on ette nähtud kasutamiseks potentsiaalselt plahvatusohtlikes atmosfäärides. ELi ametlikud aktid, L96 29.03.2014, lk 309-356

Käesolev vastavusdeklaratsioon on välja antud tootja ainuisikulisel vastutusel.

Me deklareerime ülnimetatud toote vastavust järgmistele standarditele: vt lk 1 ja lisa

Mainitud toode on ette nähtud teise masinasse installeerimiseks kasutuseesmärgiga EN 60079-10-2 ja direktiivi 1999/92/EÜ kohase tsooni 21 ohtlikes piirkondades. Edasine informatsioon sellele direktiivile vastavuse kohta on esitatud lisas, mis on käesoleva vastavusdeklaratsiooni lahutamatu osa.

Käesolev deklaratsioon on vastavuse tõend mainitud direktiivi(de)ga, kuid ei hõlma mitte mingisugust garantiid ega vastupidavuskvaliteeti. Tuleb järgida tootega kaasapandud dokumentatsioonis esitatud ohutusjuhiseid.

SIEMENS

Griechisch / ελληνική γλώσσα

Δήλωση συμμόρφωσης ΕΚ/ΕΕ (σύμφωνα με το Παράρτημα VII της Κοινοτικής Οδηγίας 94/9/ΕΚ, 2014/34/ΕΕ)

Κατασκευαστής: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Το αντικείμενο της δήλωσης που περιγράφεται παραπάνω συμμορφώνεται με τη σχετική Κοινοτική νομοθεσία περί εναρμόνισης:

≤ 19.04.2016 94/9/ΕΚ:

Οδηγία του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου για την προσέγγιση των νομικών διατάξεων των χωρών μελών που αφορούν εξοπλισμό και συστήματα προστασίας που προορίζονται για χρήση σε περιοχές με κίνδυνο έκρηξης.

≥ 20.04.2016 2014/34/ΕΕ:

Οδηγία της 26^{ης} Φεβρουαρίου 2014 του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου για την για την εναρμόνιση των νομοθεσιών των κρατών μελών σχετικά με τις συσκευές και τα συστήματα προστασίας που προορίζονται για χρήση σε εκρήξιμες ατμόσφαιρες. Επίσημη Εφημερίδα της ΕΕ, L96 29.03.2014, σελ. 309-356

Την αποκλειστική ευθύνη για την έκδοση την παρούσας Δήλωσης συμμόρφωσης την φέρει ο κατασκευαστής

Με το παρόν πιστοποιούμε τη συμμόρφωση του ανωτέρω αναφερόμενου προϊόντος με τα πρότυπα:
βλ. σελίδα 1 και παράρτημα

Το αναφερόμενο προϊόν προορίζεται για εγκατάσταση σε άλλη μηχανή για χρήση σε περιοχές με κίνδυνο έκρηξης της ζώνης 21 σύμφωνα με το EN 60079-10-2 και την Οδηγία 1999/92/ΕΚ. Περισσότερες πληροφορίες σχετικά με τη συμμόρφωση με την παρούσα Οδηγία αναφέρονται στο παράρτημα, το οποίο αποτελεί αναπόσπαστο τμήμα της παρούσας Δήλωσης συμμόρφωσης.

Αυτή η δήλωση πιστοποιεί τη συμμόρφωση με την αναφερόμενη Οδηγία, ωστόσο δεν αποτελεί εγγύηση καλής κατάστασης ή διάρκειας ζωής. Πρέπει να τηρούνται οι οδηγίες ασφαλείας της συνοδευτικής τεκμηρίωσης προϊόντος

Spanisch / español

Declaración CE/UE de conformidad (según el Anexo VII de la Directiva 94/9/CE, 2014/34/UE)

Fabricante: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

El producto arriba mencionado es conforme a la legislación de armonización de la Unión pertinente:

≤ 19.4.2016 94/9/CE:

Directiva del Parlamento Europeo y del Consejo para la armonización de las leyes de los estados miembros relativa a aparatos y sistemas de protección para uso conforme en atmósferas potencialmente explosivas.

≥ 20.04.2016 2014/34/UE:

Directiva del Parlamento Europeo y del Consejo de 26 de febrero de 2014 sobre la armonización de las legislaciones de los Estados miembros en materia de aparatos y sistemas de protección para uso en atmósferas potencialmente explosivas. Diario Oficial de la Unión Europea EU, L96 29.03.2014, págs. 309-356

La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante. Confirmamos que el producto arriba mencionado cumple las siguientes normas: véase la página 1 y el anexo

El producto mencionado está previsto para su montaje en otra máquina prevista para su instalación en atmósferas potencialmente explosivas de la zona 21 conforme a EN 60079-10-2 y la directiva 1999/92/CE. Más información relativa a la conformidad con dicha directiva figura en el anexo que forma parte integral de la presente declaración de conformidad.

Esta declaración certifica el cumplimiento de las directivas mencionadas pero no garantiza las características ni la durabilidad. Deben observarse las consignas de seguridad de la documentación de producto suministrada.

SIEMENS

Französisch / français

Déclaration CE de conformité (selon annexe VII de la directive 94/9/CE, 2014/34/UE)

Constructeur : *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Le produit sus-mentionné est conforme à la législation communautaire d'harmonisation pertinente:

≤ 19.04.2016 94/9/CE:

Directive du parlement européen et du conseil concernant le rapprochement des législations des États membres pour les appareils et les systèmes de protection destinés à être utilisés en atmosphères explosibles.

≥ 20.04.2016 2014/34/UE:

Directive du Parlement européen et du Conseil du 26 février 2014 relative à l'harmonisation des législations des États membres concernant les appareils et les systèmes de protection destinés à être utilisés en atmosphères explosibles. Journal officiel de l'UE L96, 29.03.2014, p. 309-356

Le fabricant est seul responsable de l'établissement de cette déclaration de conformité.**Nous certifions la conformité du produit susmentionné avec les normes suivantes :** voir page 1 et annexe

Le produit désigné est destiné à l'implantation dans une autre machine pour l'utilisation en atmosphère explosible, zone 21 selon la norme EN 60079-10-2 et la directive 1999/92/EG. Des informations complémentaires sur la conformité avec cette directive figurent dans l'annexe qui fait partie intégrante de cette déclaration de conformité.

Ce certificat atteste la conformité aux directives mentionnées, mais ne tient pas lieu de garantie de qualité ni de longévité.
Respecter les consignes de sécurité figurant dans la documentation produit fournie.

Italienisch / italiano

Dichiarazione di conformità CE/UE (secondo l'allegato VII della Direttiva Europea 94/9/CE, 2014/34/UE)

Costruttore: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

L'oggetto della dichiarazione sopra descritto è conforme alle prescrizioni di armonizzazione pertinenti dell'Unione

≤ 19.04.2016 94/9/CE:

Direttiva del Parlamento Europeo e del Consiglio concernente il ravvicinamento delle legislazioni degli Stati membri relativa agli apparecchi e sistemi di protezione destinati ad essere utilizzati in atmosfera potenzialmente esplosiva.

≥ 20.04.2016 2014/34/UE:

Direttiva del Parlamento Europeo e del Consiglio del 26 Febbraio 2014 concernente l'armonizzazione delle legislazioni degli Stati membri relative agli apparecchi e sistemi di protezione destinati a essere utilizzati in atmosfera potenzialmente esplosiva. Gazzetta Ufficiale della UE, L96 29.03.2014, p. 309-356

Questa dichiarazione di conformità è rilasciata sotto la sola responsabilità del costruttore.**Confermiamo la conformità del prodotto sopra designato alle norme:** vedi pagina 1 e allegato

Il prodotto designato è destinato a essere installato in un'altra macchina per l'impiego in aree a rischio di esplosione della Zona 21 secondo la norma EN 60079-10-2 e la Direttiva 1999/92/CE.
Ulteriori indicazioni sulla conformità a questa Direttiva sono contenute nell'allegato, che è parte integrale di questa dichiarazione di conformità.

Questa dichiarazione certifica la conformità con le Direttive citate, non costituisce però alcuna garanzia di caratteristiche di prodotto oppure di durata. Le avvertenze di sicurezza riportate nella documentazione di prodotto allegata devono essere rispettate.

SIEMENS

Lettsisch / latviešu

EK/ES atbilstības deklarācija (saskaņā ar EK Direktīvas 94/9/EK, 2014/34/ES pielikumu VII)

Ražotājs: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf

Iepriekš aprakstītās deklarācijas objekts atbilst attiecīgajiem Savienības saskaņotajiem tiesību aktiem:

≤ 19.04.2016 94/9/EK:

Eiropas parlamenta un padomes direktīva, saskaņā ar dalībvalstu likumiem, attiecībā uz ieceri izmantot ierīces un aizsardzības sistēmas iespējami sprādzienbīstamā vidē.

≥ 20.04.2016 2014/34/ES:

Eiropas Parlamenta un Padomes 2014. gada 26. februāra Direktīva par dalībvalstu tiesību aktu saskaņošanu attiecībā uz iekārtām un aizsardzības sistēmām, kas paredzētas lietošanai sprādzienbīstamā vidē. ES Oficiālais vēstnesis, L96 29.03.2014, 309.-356. lpp.

Par šīs atbilstības deklarācijas sastādīšanu ir atbildīgs vienīgi ražotājs.

Mēs apstiprinām iepriekš minētā izstrādājuma atbilstību standartiem: skatiet 1. lappusi un pielikumu

Norādītais izstrādājums ir paredzēts uzstādīšanai citā iekārtā un izmantošanai zonas 21 bīstamajās vietās saskaņā ar standartu EN 60079-10-2 un Direktīvu 1999/92/EK. Papildinformācija par atbilstību šai Direktīvai ir iekļauta pielikumā, kas ir šīs atbilstības deklarācijas neatņemama sastāvdaļa.

Ar šo deklarāciju tiek apliecināta atbilstība norādītajai(-ām) direktīvai(-ām), bet tā neietver nekādu kvalitātes vai ilgmūžīguma garantiju. Jāievēro pievienotās izstrādājuma dokumentācijas drošības instrukcijas.

Litauisch / lietuvių

EB/ES atitikties deklarācija (pagal EB direktīvos 94/9/EB, 2014/34/ES VII priedā)

Gamintojas: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Pirmiau aprašytas deklaruojamas dalykas atitinka atitinkamus Sąjungos derinamuosius teisės aktus:

≤ 19.4.2016 94/9/EB:

Europos Parlamento ir Tarybos direktyva dėl valstybių narių įstatymų, susijusių su potencialiai sprogioje aplinkoje naudojama įranga ir apsaugos sistemomis, suderinimo

≥ 20.04.2016 2014/34/ES

2014 m. vasario 26 d. Europos Parlamento ir Tarybos direktyva dėl valstybių narių įstatymų, susijusių su potencialiai sprogioje aplinkoje naudojama įranga ir apsaugos sistemomis, suderinimo
Europos Sąjungos oficialūs leidinys, L96 2014.03.29, p. 309–356

Ši atitikties deklaracija išduota tik gamintojo atsakomybe.

Tvirtiname, kad pirmiau nurodytas gaminys atitinka standartus: žr. 1 p. ir priedą

Nurodytas produktas skirtas montuoti į kitą mašiną ir naudoti pavojingoje 21 zonos aplinkoje pagal EN 60079-10-2 ir direktyvą 1999/92/EB. Papildomos informacijos apie atitiktį šiai direktyvai pateikiama priede, kuris yra neatsiejama šios atitikties deklaracijos dalis.

Ši deklaracija patvirtina atitiktimą nurodytai (-oms) direktyvai (-oms), tačiau negarantuoja kokybės ar atsparumo.

Būtina laikytis pridedamoje gaminio dokumentacijoje pateiktų saugos nurodymų.

SIEMENS

Ungarisch / magyar nyelv

EK/EU megfelelőségi nyilatkozat (a 94/9/EK, 2014/34/EU irányelv VII függeléke szerint)

Gyártó: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

A fentiekben leírt nyilatkozat tárgya megfelel a vonatkozó uniós harmonizálási jogszabálynak:

≤ 19.04.2016 94/9/EK:

Az Európai Parlament és az Európa Tanács irányelve a tagállamok készülékekre és védelmi rendszerekre vonatkozó jogi előírásainak harmonizálásáról a robbanásveszélyes területeken való rendeltetésszerű használathoz.

≥ 20.4.2016 2014/34/EU:

Az Európai Parlament és a Tanács irányelve (2014. február 26.) a robbanásveszélyes légkörben való használatra szánt felszerelésekre és védelmi rendszerekre vonatkozó tagállami jogszabályok harmonizációjáról. Az Európai Unió Hivatalos Lapja, L96 2014.03.29., 309-356 o.

Ez a megfelelőségi nyilatkozat a gyártó kizárólagos felelőssége alatt lett kiadva.**Megerősítjük a fent jelezett termékek szabványok szerinti megfelelőségét:** lásd 1. oldal és melléklet

A jelzett termék 21 veszélyes zónaterületeken használatos másik gépbe lesz beszerelve az EN 60079-10-2 és az 1999/92/EK irányelv szerint. Az irányelv szerinti megfelelőségről további információk a mellékletben található, amely a jelen megfelelőségi nyilatkozat szerves részét képezi.

Ez a nyilatkozat tanúsítja a jelzett irányelv(ek) szerinti megfelelőséget, de nem jelent garanciát a minőségre vagy tartósságra nézve.

A kísérő termékdokumentáció biztonsági utasításait figyelembe kell venni.

Maltesisch/ Malti**Dikjarazzjoni ta' Konformità tal-UE (skont l-Anness VII tad-Direttiva 94/9/KE, 2014/34/UE tal-KE)**

Manifattur: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Il-prodott indikat fid-dikjarazzjoni msemmija hawn fuq huwa f'konformità mal-leġiżlazzjoni rilevanti tal-Unjoni dwar l-armonizzazzjoni:

≤ 19.04.2016 94/9/KE:

Direttiva tal-parlament Ewropew u tal-Kunsill dwar l-approssimazzjoni tal-liġijiet ta'-Istati Membri li jirrigwardaw tagħmir u sistemi ta' sigurtà għal użu skond ir-regolamenti f' zoni fejn hemm periklu ta' splużżjonijiet.

≥ 20.04.2016 2014/34/UE:

Direttiva tal-Parlament Ewropew u tal-Kunsill tas-26 ta' Frar 2014 dwar l-armonizzazzjoni tal-liġijiet tal-Istati Membri relattivament għal tagħmir u sistemi ta' protezzjoni maħsuba għall-użu f'atmosfera potenzjalment esplużivi. Gurnal Uffiċjali tal-UE, L96 29.03.2014, p. 309-356

Din id-dikjarazzjoni ta' konformità hija maħruġa bir-responsabilità unika tal-manifattur.**Nikkonfermaw il-konformità tal-prodott indikat hawn fuq mal-istandards:** ara paġna 1 u l-anness

Il-prodott indikat huwa maħsub biex jiġi mmuntat f'magna oħra għall-użu f'żoni ta' periklu taż-żona 21 f'konformità ma' EN 60079-10-2 u mad-Direttiva 1999/92/KE. Aktar informazzjoni dwar il-konformità ma' din id-Direttiva hija pprovduta fl-Anness li jiffirma parti integrali ta' din id-dikjarazzjoni ta' konformità.

Din id-dikjarazzjoni tiċcertifika l-konformità mad-Direttiva/i indikat/i iżda ma tiggarantix il-kwalità tal-prodott jew kemm idum iservi.

L-istruzzjonijiet tas-sikurezza fid-dokumentazzjoni tal-prodott għandhom jiġu osservati.

SIEMENS

Niederländisch / Nederlandse

EG/EU-conformiteitsverklaring (volgens bijlage VII van de EU-richtlijn 94/9/EG, 2014/34/EU)

Fabrikant: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Het omschreven product stemt overeen met de voorschriften van de volgende Europese richtlijn:

≤ 19.4.2016 94/9/EG

Richtlijn van het Europees Parlement en de Raad inzake de onderlinge aanpassing van de wetgevingen van de lidstaten betreffende apparaten en beveiligingssystemen bedoeld voor gebruik op plaatsen waar ontploffingsgevaar kan heersen.

≥ 20.4.2016 2014/34/EU

Richtlijn van het Europees Parlement en de Raad d.d. 26 februari 2014 inzake de onderlinge aanpassing van de wetgevingen van de lidstaten betreffende apparaten en beveiligingssystemen bedoeld voor gebruik op plaatsen waar ontploffingsgevaar kan heersen. Publicatieblad van de EU, L96 29-03-2014, p. 309-356

Deze conformiteitsverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabrikant.

Wij bevestigen de conformiteit van bovengenoemd product met de normen: zie pagina 1 en de bijlage

Het omschreven product is bedoeld voor inbouw in een andere machine voor gebruik op explosiegevaarlijke plaatsen van zone 21 volgens EN 60079-10-2 en richtlijn 1999/92/EC. Meer informatie over de conformiteit met deze richtlijn vindt u in de bijlage die een integraal onderdeel vormt van deze conformiteitsverklaring

Deze verklaring bevestigt de conformiteit met de genoemde richtlijn(en), maar geeft geen garantie betreffende de gesteldheid of de houdbaarheid. De veiligheidsaanwijzingen in de meegeleverde productdocumentatie dienen te worden nageleefd

Norwegisch / Norsk

EU-konformitetserklæring (i henhold til vedlegg VII til EUs direktiv 94/9/EU, 2014/34/EU)

Produsent: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Objektet for erklæringen overfor er i overensstemmelse med forskriftene i følgende EU-direktiv angående tilpasning:

≤ 19.4.2016 94/9/EU:

Direktiv fra EU-parlamentet og rådet for tilpasning av medlemsstatenes rettslige forskrifter for utstyr og beskyttelsessystemer for forskriftmessig bruk i eksplosjonsfarlige områder.

≥ 20.4.2016 2014/34/EU:

Direktiv fra Europaparlamentet og Rådet for tilpasning av 26 februar 2014 av medlemsstatenes lover for utstyr og beskyttelsessystemer ment for bruk i eksplosjonsfarlige omgivelser. Official Journal of the EU, L96 29.03.2014, p 309-356

Produsenten har det hele og fulle ansvar for utstedelsen av denne konformitetserklæringen.

Vi bekrefter at det ovennevnte produktet er i overensstemmelse med standardene (se side 1 og vedlegg)

Det omtalte produktet er ment for innbygging i en annen maskin for bruk i eksplosjonsfarlige områder i sone 21 i henhold til EN 60079-10-2 og direktiv 1999/92/EF. Mer informasjon om produktets overensstemmelse med dette direktivet kan ses i vedlegget, som er en integrert del av denne konformitetserklæringen.

Denne erklæringen bekrefter at produktet er i overensstemmelse med det angitte direktivet (de angitte direktivene), men er ingen garanti for kvalitet eller levetid. Sikkerhetshenvisningene i den medfølgende produktdokumentasjonen må følges.

SIEMENS

Polnisch / polszczyzna

Deklaracja zgodności UE (zgodnie z załącznikiem VII do Dyrektywy 94/9/WE, 2014/34/UE)

Producent: *Siemens Aktiengesellschaft*
Hans-Loher-Straße
D-94099 Ruhstorf a. d. Rott

Przedmiot deklaracji opisany powyżej jest zgodny z właściwymi przepisami zharmonizowanymi Unii Europejskiej:

≤ 19.4.2016 94/9/WE:

Dyrektywa Parlamentu Europejskiego i Rady ds. Harmonizacji Przepisów Prawnych Państw Członkowskich dla Urządzeń i Systemów Ochronnych w celu ich użytkowania zgodnego z przeznaczeniem w obszarach zagrożonych wybuchami.

≥ 20.4.2016 2014/34/UE:

Dyrektywą Parlamentu Europejskiego i Rady z dnia 26 lutego 2014 w sprawie harmonizacji ustawodawstw państw członkowskich odnoszących się do urządzeń i systemów ochronnych przeznaczonych do użytku w atmosferze potencjalnie wybuchowej. Dz. U. UE, L96 29.03.2014, str. 309-356

Niniejsza deklaracja zgodności wydawana jest na wyłączną odpowiedzialność producenta.

Potwierdzamy zgodność produktu wskazanego powyżej z następującymi normami: patrz strona 1 oraz załącznik

Wskazany produkt przeznaczony jest do instalacji w innej maszynie przeznaczonej do użytkowania w obszarach niebezpiecznych strefy 21 zgodnie z normą EN 60079-10-2 oraz Dyrektywą 1999/92/WE. Dalsze informacje dotyczące zgodności z tą Dyrektywą podano w załączniku, który stanowi integralną część niniejszej deklaracji zgodności.

Niniejsza deklaracja stanowi zaświadczenie zgodności ze wskazanymi Dyrektywami, jednak nie implikuje żadnej gwarancji jakości lub trwałości. Należy przestrzegać instrukcji bezpieczeństwa zawartych w dokumentacji dołączonej do produktu.

Portugiesisch / português

Declaração de conformidade CE/UE (segundo Anexo VII da Diretiva 94/9/CE, 2014/34/UE)

Fabricante: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

O produto acima especificado está em conformidade com a legislação de harmonização da União Europeia relevante:

≤ 19.4.2016 94/9/CE:

Directiva do Parlamento Europeu e do Conselho relativa à aproximação das legislações dos Estados-Membros sobre aparelhos e sistemas de protecção destinados a serem utilizados em conformidade com as especificações em atmosferas potencialmente explosivas

≥ 20.4.2016 2014/34/UE:

Diretiva do Parlamento Europeu e do Conselho de 26 de fevereiro de 2014 relativa à harmonização das leis dos Estados-Membros sobre aparelhos e sistemas de protecção destinados a serem utilizados em atmosferas potencialmente explosivas. Jornal Oficial da UE, L96 29.03.2014, p. 309-356

A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante.

Certificamos a conformidade do produto supracitado com as seguintes normas: consulte a página 1 e anexo

O produto supracitado destina-se à instalação noutra máquina para a utilização em atmosferas potencialmente explosivas da zona 21 em conformidade com a Norma EN 60079-10-2 e Diretiva 1999/92/CE. Mais informação sobre a conformidade desta Diretiva encontra-se no anexo, que é parte integrante da presente declaração de conformidade.

A presente declaração atesta a conformidade com a(s) Diretiva(s) mencionada(s), no entanto, não constitui uma garantia de qualidade ou durabilidade. Respeitar as indicações de segurança da documentação do produto juntamente fornecida.

SIEMENS

Russisch / русский язык

Декларация о соответствии стандартам ЕС (согласно приложению VII Директивы 94/9/EG, 2014/34/EU)

Производитель: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Описанный выше объект декларации отвечает требованиям соответствующего законодательства ЕС по гармонизации:

≤ 19.4.2016 94/9/EG:

Директива Европейского Парламента и Совета по адаптации правовых предписаний стран-участниц на устройства и системы защиты, применяемые во взрывоопасных помещениях.

≥ 20.4.2016 2014/34/EU:

Директива Европейского парламента и Совета от 26 февраля 2014 по гармонизации законов стран ЕС об оборудовании и защитных системах, предназначенных для использования в потенциально взрывоопасной атмосфере. Официальный журнал ЕС, L96 29.03.2014, с. 309-356

Эта декларация о соответствии выдана под исключительную ответственность производителя.

Подтверждаем соответствие вышеназванного изделия следующим стандартам: см. с. 1 и приложение

Названное изделие предназначено для встраивания в другой механизм для применения во взрывоопасных помещениях зоны 21 согласно EN 60079-10-2 и Директиве 1999/92/EG. Дополнительную информацию о соответствии этой Директиве см. в приложении, которое является неотъемлемой частью данной декларации о соответствии.

Данная декларация подтверждает соответствие названным Директивам, но не является гарантией качества или долговечности. Необходимо соблюдать указания по технике безопасности в документации из комплекта поставки изделия.

Slowakisch / slovenský jazyk

Prehlásenie o zhode s normami EÚ (v súlade s prílohou VII Smernice 94/9/ES, 2014/34/EÚ)

Výrobca: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Vyššie popísaný predmet prehlásenia je v súlade s príslušnými harmonizačnými právnymi predpismi Únie:

≤ 19.4.2016 94/9/ES:

Smernica Európskeho parlamentu a Rady o zosúladiení zákonných požiadaviek členských štátov týkajúcich sa prístrojov a ochranných systémov, ktoré sú určené na použitie v rámci stanovených predpisov v prostredíach s nebezpečím výbuchu.

≥ 20.4.2016 2014/34/EÚ:

Smernica Európskeho parlamentu a Rady 2014/34/EÚ z 26. februára 2014 o harmonizácii právnych predpisov členských štátov týkajúcich sa zariadení a ochranných systémov určených na použitie v potenciálne výbušnej atmosfére. Úradný vestník EÚ, L96 29.03.2014, s. 309-356

Toto prehlásenie o zhode sa vydáva na výhradnú zodpovednosť výrobcu

Potvrďujeme zhodu horeuvedeného výrobku s normami: pozri strana 1 a príloha

Uvedený výrobok je určený na zabudovanie do iného stroja pre použitie v prostredí s nebezpečenstvom výbuchu v zóne 21 v súlade s EN 60079-10-2 a smernicou 1999/92/ES. Ďalšie informácie o súlade s touto smernicou sú uvedené v prílohe, ktorá je neoddeliteľnou súčasťou tohto prehlásenia o zhode.

Toto prehlásenie osvedčuje zhodu s uvedenými smernicami, neznamená však záruku vlastností alebo trvanlivosti. Dodržiavajte bezpečnostné pokyny podľa dodanej dokumentácie k výrobku.

SIEMENS

Slovenisch / slovenščina

ES/EU izjava o skladnosti (skladno z dodatkom VII Direktive 94/9/ES, 2014/34/EU)

Izdelovalec: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Predmet izjave, ki je opisan zgoraj, je skladen z ustrezno usklajevalno zakonodajo unije:

≤ 19.4.2016 94/9/ES:

Smernice Evropskega parlamenta in sveta za zakonsko prilagajanje predpisov držav članic za naprave in varovalne sisteme. V eksplozijsko ogroženih področjih velja uporaba ustreznih določil.

≥ 20.4.2016 2014/34/EU:

Direktiva Evropskega Parlamenta in Sveta z dne 26. februarja 2014 o usklajevanju zakonov držav članic, ki se navezujejo na opremo in zaščitne sisteme, namenjene za uporabo v potencialno eksplozivnih ozračjih. Uradni list EU, L96 29.03.2014, str. 309-356

Ta izjava o skladnosti je izdana na izključno odgovornost izdelovalca.**Potrjujemo skladnost izdelka, ki je imenovan zgoraj, s standardi:** glejte stran 1 in dodatek

Navedeni izdelek je namenjen za namestitev v drug stroj, ki se uporablja v nevarnih območjih cone 21 v skladu s standardom EN 60079-10-2 in Direktivo 1999/92/ES. Nadaljnje informacije o skladnosti s to direktivo so v dodatku, ki je sestavni del te izjave o skladnosti.

Ta izjava je potrdilo skladnosti z navedenimi direktivami, vendar ne predstavlja jamstva za kakovost ali rok uporabnosti. Upoštevajte varnostna navodila iz spremne dokumentacije izdelka.

Finnisch / suomi

EU-vaatimustenmukaisuusvakuutus (EY-direktiivin 94/9/EY, 2014/34/EU liitteen VII mukaan)

Valmistaja: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Edellä kuvattu vakuutuksen kohde on unionin sovellettavan yhdenmukaistamislainsäädännön mukainen:

≤ 19.4.2016 94/9/EY

Euroopan Parlamentin ja Neuvoston direktiivi räjähdysvaarallisissa tiloissa käytettäväksi tarkoitettuja laitteita ja suojajärjestelmiä koskevan jäsenvaltioiden lainsäädännön lähentämisestä..

≥ 20.4.2016 2014/34/EU

Euroopan parlamentin ja neuvoston direktiivi 2014/34/EU, annettu 26. päivänä helmikuuta 2014, räjähdysvaarallisissa tiloissa käytettäväksi tarkoitettuja laitteita ja suojajärjestelmiä koskevan jäsenvaltioiden lainsäädännön yhdenmukaistamisesta. EU:n virallinen lehti, L96 29.03.2014, s. 309-356

Vastuu tämän vaatimustenmukaisuusvakuutuksen laadinnasta on yksinomaan valmistajalla.**Vakuutamme, että edellä mainittu tuote vastaa seuraavia standardeja:** ks. sivu 1 ja liite

Mainittu tuote on tarkoitettu asennettavaksi toiseen koneeseen, jota käytetään tilaluokan 21 vaarallisissa tiloissa standardin EN 60079-10-2 ja direktiivin 1999/92/EY mukaisesti. Lisätietoja tämän direktiivin vaatimusten täyttymisestä on liitteessä, joka on olennainen osa tätä vaatimustenmukaisuusvakuutusta.

Tämä vakuutus todistaa yhdenmukaisuuden mainittujen direktiivien kanssa, mutta se ei anna takuuta ominaisuuksista tai kestävyyydestä. Tuotteen mukana toimitettavan dokumentaation turvallisuusohjeita on noudatettava.

SIEMENS

Schwedisch / svenska

EG/EU-försäkran om överensstämmelse (enligt bilaga VII till EG-direktiv 94/9/EG, 2014/34/EU)

Tillverkare: *Siemens Aktiengesellschaft
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott*

Den märkta produkten stämmer överens med föreskrifterna i följande europeiska direktiv:

≤ 19.4.2016 94/9/EG:

Direktiv från det europeiska parlamentet och rådet för anpassning av medlemsstaternas rättsliga föreskrifter angående apparater och skyddssystem för användning inom bestämda områden med explosionsrisk.

≥ 20.4.2016 2014/34/EU:

Direktiv från det europeiska parlamentet och rådet från den 26 februari 2014 för anpassning av medlemsstaternas rättsliga föreskrifter angående apparater och skyddssystem för användning inom bestämda områden med explosionsrisk. Officiell EU-handling, L96 29.03.2014, s. 309-356

Denna försäkran om överensstämmelse är endast utfärdad under tillverkarens ansvar.

Vi bekräftar att produkten som anges ovan överensstämmer med normerna: se sida 1 och bilagan

Den märkta produkten är avsedd att byggas in i en annan maskin för användning i områden med explosionsrisk i zon 21 i enlighet med EN 60079-10-2 och direktiv 1999/92/EC. Ytterligare information om överensstämmelsen till detta direktiv finns i bilagan, som är en integrerad del i denna försäkran om överensstämmelse.

Denna förklaring garanterar överensstämmelse med nämnda standarder, men gäller inte som garanti av något slag.
Beakta säkerhetsanvisningarna i den medföljande produkt dokumentationen

Rumänisch / România

Declarație de conformitate CE/UE (în conformitate cu anexa VII a Directivei CE 94/9/CE, 2014/34/UE)

Producător: *Siemens Aktiengesellschaft
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott*

Obiectul declarației descrise mai sus este conform cu legislația armonizată relevantă a Uniunii:

bis ≤ 19.4.2016 94/9/CE:

Directiva Parlamentului European și a Consiliului cu privire la uniformizarea legislației statelor membre pentru aparate și sisteme de protecție cu privire la utilizarea conformă cu scopul de fabricație în zone cu pericol de explozie.

ab ≥ 20.4.2016 2014/34/UE:

Directiva Parlamentului European și a Consiliului din 26 februarie 2014 privind armonizarea legislațiilor statelor membre referitoare la echipamentele și sistemele de protecție destinate utilizării în atmosfere potențial explozive. Jurnalul Oficial al UE, L96 29.03.2014, p. 309-356

Această declarație de conformitate este emisă pe responsabilitatea unică a producătorului.

Confirmăm conformitatea produsului indicat mai sus cu standardele: consultați pagina 1 și anexa

Produsul indicat este destinat instalării într-o altă mașină prevăzută pentru utilizarea în spații periculoase din zona 21 în conformitate cu EN 60079-10-2 și Directiva 1999/92/CE. Mai multe informații privind conformitatea cu această directivă sunt prevăzute în anexă, care constituie o parte integrantă a acestei declarații de conformitate.

Această declarație atestă conformitatea cu directiva sau directivele menționate, însă nu implică o garanție a calității sau durabilității.
Se vor respecta instrucțiunile de siguranță din documentația care însoțește produsul.

SIEMENS

Bulgarisch / български език

ЕС Декларация за съответствие (съгласно приложение VII на Директива на ЕС 94/9/ЕО, 2014/34/ЕС)

Производител: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Обозначеният продукт съответства на предписанията на следната хармонизирана европейска директива:

≤ 19.4.2016 94/9/ЕО:

Директива на Европейския парламент и съвет за правно уеднаквяване на нормативните актове на държавите членки за уреди и защитни системи за употреба съгласно предназначението във взривоопасни области.

≥ 20.4.2016 2014/34/ЕС:

Директива на Европейския парламент и на Съвета от 26 февруари 2014 за хармонизиране на законодателствата на държавите членки относно съоръженията и системите за защита, предназначени за използване в потенциално експлозивна атмосфера. Официален вестник на ЕС, L96 29.03.2014, стр. 309-356

Тази декларация е изготвена на собствена отговорност на производителя.

Ние потвърждаваме съответствието на гореспоменатия продукт със стандартите: виж страница 1 и Приложението

Обозначеният продукт е предназначен за вграждане в друга машина за използване в опасни области от зона 21 в съответствие с EN 60079-10-2 и Директива 1999/92/ЕС. Допълнителна информация за съответствието с настоящата директива е дадена в приложението, което е неразделна част от тази декларация за съответствие.

Тази декларация удостоверява съответствието с посочените директива (и), но не е гаранция за качество или трайност. Да се спазват указанията за безопасност от придружаващата продукта документация.

Kroatisch / hrvatski jezik

Izjava o usklađenosti EU-a (u skladu s Prilogom VII Direktive EZ-a 94/9/EZ, 2014/34/EU)

Proizvođač: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Predmet gore opisane izjave je usklađenost s relevantnim harmoniziranim zakonima Unije:

≤ 19.4.2016 94/9/EZ:

Direktiva Europskog parlamenta i Vijeća o usklađivanju zakonodavstava država članica u odnosu na opremu i zaštitne sustave namijenjene za uporabu u potencijalno eksplozivnim atmosferama.

ab ≥ 20.4.2016 2014/34/EU:

Direktiva Europskog parlamenta i Vijeća od 26. veljače 2014. o harmonizaciji zakona zemalja članica u pogledu opreme i zaštitnih sustava namijenjenih uporabi u potencijalno eksplozivnim atmosferama. Službeni list EU-a, L96 29.03.2014., str. 309.-356.

Ova izjava o usklađenosti izdaje se na vlastitu odgovornost proizvođača.

Potvrđujemo usklađenost gore navedenog proizvoda s normama: vidi stranicu 1. i prilog

Navedeni proizvod namijenjen je ugradnji u drugi stroj za uporabu u opasnim područjima zone 21 u skladu s normom EN 60079-10-2 i Direktivom 1999/92/EZ. Dodatne informacije o usklađenosti s ovom Direktivom navedene su u prilogu koji je sastavni dio ove izjave o usklađenosti.

Ova je izjava potvrda o usklađenosti s navedenim Direktivama, ali ne znači jamstvo kvalitete ili trajnosti. Morate se pridržavati sigurnosnih uputa u pripadajućoj dokumentaciji o proizvodu.



**Anhang zur EG/EU-Konformitätserklärung /
Annex to EC/EU Declaration of Conformity**

Nr. /No. A5E35855445A

Die Drittstellenzertifikate wurden ausgestellt von den folgenden notifizierten Stellen /
The Third-Party Certificates were issued by the following notified bodies:

Gerät Equipment		EG/EU-Baumuster- prüfbescheinigung	Notifizierte Stelle
Type type	Alternativer Typ alternative type	EC/EU-Type Examination Certificate	Notified Body
A***-071**.* E***-071**.*	1PS*07*-*.*.*.*	BVS 11 ATEX E 006	NB 0158 ²⁾
		BVS 14 ATEX E 101	NB 0158 ²⁾
D***-071**.*	1PS*07*-*.*.*.* 1MD*07*-*.*.*.*	BVS 11 ATEX E 053 X	NB 0158 ²⁾
		BVS 13 ATEX E 129 X	NB 0158 ²⁾
A***-080**.* E***-080**.*	1PS*08*-*.*.*.*	BVS 11 ATEX E 014	NB 0158 ²⁾
		BVS 14 ATEX E 092	NB 0158 ²⁾
D***-080**.*	1PS*08*-*.*.*.* 1MD*08*-*.*.*.*	BVS 11 ATEX E 027 X	NB 0158 ²⁾
		BVS 13 ATEX E 128 X	NB 0158 ²⁾
A***-090**.* E***-090**.*	1PS*09*-*.*.*.*	BVS 11 ATEX E 092	NB 0158 ²⁾
		BVS 14 ATEX E 089	NB 0158 ²⁾
D***-090**.*	1PS*09*-*.*.*.* 1MD*09*-*.*.*.*	BVS 11 ATEX E 015 X	NB 0158 ²⁾
		BVS 13 ATEX E 098 X	NB 0158 ²⁾
A***-100**.* E***-100**.*	1PS*10*-*.*.*.*	BVS 11 ATEX E 105	NB 0158 ²⁾
		BVS 14 ATEX E 079	NB 0158 ²⁾
D***-100**.*	1PS*10*-*.*.*.* 1MD*10*-*.*.*.*	BVS 10 ATEX E 155 X	NB 0158 ²⁾
		BVS 13 ATEX E 127 X	NB 0158 ²⁾
A***-112**.* E***-112**.*	1PS*11*-*.*.*.*	BVS 11 ATEX E 112	NB 0158 ²⁾
		BVS 14 ATEX E 070	NB 0158 ²⁾
D***-112**.*	1PS*11*-*.*.*.* 1MD*11*-*.*.*.*	BVS 11 ATEX E 159 X	NB 0158 ²⁾
		BVS 13 ATEX E 126 X	NB 0158 ²⁾
A***-132**.* E***-132**.*	1PS*13*-*.*.*.*	BVS 11 ATEX E 118	NB 0158 ²⁾
		BVS 14 ATEX E 053	NB 0158 ²⁾
D***-132**.*	1PS*13*-*.*.*.* 1MD*13*-*.*.*.*	BVS 10 ATEX E 123 X	NB 0158 ²⁾
		BVS 13 ATEX E 099 X	NB 0158 ²⁾
A***-160**.* E***-160**.*	1PS*16*-*.*.*.*	BVS 11 ATEX E 126	NB 0158 ²⁾
		BVS 13 ATEX E 086	NB 0158 ²⁾
D***-160**.*	1PS*16*-*.*.*.* 1MD*16*-*.*.*.*	BVS 11 ATEX E 012 X	NB 0158 ²⁾
		BVS 13 ATEX E 019 X	NB 0158 ²⁾
A***-180**.* E***-180**.*	1PS*18*-*.*.*.*	BVS 11 ATEX E 010	NB 0158 ²⁾
		BVS 13 ATEX E 077	NB 0158 ²⁾
D***-180**.*	1PS*18*-*.*.*.* 1MD*18*-*.*.*.*	BVS 11 ATEX E 047 X	NB 0158 ²⁾
		BVS 13 ATEX E 017 X	NB 0158 ²⁾
A***-200**.* E***-200**.*	1PS*20*-*.*.*.*	BVS 11 ATEX E 005	NB 0158 ²⁾
		BVS 13 ATEX E 056	NB 0158 ²⁾
D***-200**.*	1PS*20*-*.*.*.* 1MD*20*-*.*.*.*	BVS 11 ATEX E 020 X	NB 0158 ²⁾
		BVS 13 ATEX E 012 X	NB 0158 ²⁾
A***-225**.* E***-225**.*	1PS*22*-*.*.*.*	BVS 11 ATEX E 017	NB 0158 ²⁾
		BVS 13 ATEX E 095	NB 0158 ²⁾
D***-225**.*	1PS*22*-*.*.*.* 1MD*22*-*.*.*.*	BVS 11 ATEX E 046 X	NB 0158 ²⁾
		BVS 12 ATEX E 103 X	NB 0158 ²⁾
A***-250**.* E***-250**.*	1PS*25*-*.*.*.*	BVS 11 ATEX E 034	NB 0158 ²⁾
		BVS 12 ATEX E 109	NB 0158 ²⁾

SIEMENS

Gerät Equipment		EG/EU-Baumuster- prüfbescheinigung	Notifizierte Stelle
Typ type	Alternativer Typ alternative type	EC/EU-Type Examination Certificate	Notified Body
D***-250**-*	1PS*25*-*-*-*	BVS 11 ATEX E 030 X	NB 0158 ²⁾
	1MD*25*-*-*-*	BVS 11 ATEX E 045 X	NB 0158 ²⁾
A***-280**-* E***-280**-*	1PS*28*-*-*-*	BVS 11 ATEX E 125	NB 0158 ²⁾
		BVS 12 ATEX E 113	NB 0158 ²⁾
D***-280**-*	1PS*28*-*-*-*	BVS 11 ATEX E 051 X	NB 0158 ²⁾
		BVS 12 ATEX E 029 X	NB 0158 ²⁾
A***-315**-* E***-315**-*	1PS*31*-*-*-*	BVS 11 ATEX E 123	NB 0158 ²⁾
		BVS 11 ATEX E 025 X	NB 0158 ²⁾
D***-315**-*	1MD*31*-*-*-*	BVS 12 ATEX E 051 X	NB 0158 ²⁾
		BVS 10 ATEX E 077	NB 0158 ²⁾
A***-355**-* E***-355**-*	1PS*35*-*-*-* 1MV*35*-*-*-*	BVS 11 ATEX E 003 X	NB 0158 ²⁾
		BVS 13 ATEX E 120 X	NB 0158 ²⁾
D***-355**-*	1MD*35*-*-*-* 1MV*35*-*-*-*	BVS 10 ATEX E 078	NB 0158 ²⁾
		BVS 11 ATEX E 162 X	NB 0158 ²⁾
A***-400**-* E***-400**-*	1PS*40*-*-*-* 1MV*40*-*-*-*	BVS 11 ATEX E 084 X	NB 0158 ²⁾
		BVS 13 ATEX E 114	NB 0158 ²⁾
D***-400**-*	1PS*40*-*-*-* 1MV*40*-*-*-*	BVS 11 ATEX E 084 X	NB 0158 ²⁾
		BVS 13 ATEX E 114	NB 0158 ²⁾
A***-450**-* E***-450**-*	1PS*45*-*-*-* 1MV*45*-*-*-*	BVS 11 ATEX E 084 X	NB 0158 ²⁾
		BVS 13 ATEX E 114	NB 0158 ²⁾
D***-450**-*	1PS*45*-*-*-* 1MV*45*-*-*-*	BVS 11 ATEX E 084 X	NB 0158 ²⁾
		BVS 13 ATEX E 114	NB 0158 ²⁾
A***-500**-* E***-500**-*	1PS*50*-*-*-* 1MV*50*-*-*-*	BVS 13 ATEX E 114	NB 0158 ²⁾
		BVS 13 ATEX E 114	NB 0158 ²⁾

Die Bewertung des Qualitätssicherungssystems erfolgte durch die Benannte Stelle: NB 0102 ¹⁾
The assessment of our quality system was done by the following notified body:

- 1) NB 0102: PTB, Physikalisch-Technische Bundesanstalt,
Bundesallee 100, D-38116 Braunschweig
- 2) NB 0158 DEKRA EXAM GmbH,
Dinnendahlstraße 9, D-44809 Bochum

Ende des Anhangs / End of Annex

SIEMENS

EG/EU-Konformitätserklärung

(nach Anhang VIII der EG-Richtlinie 94/9/EG bzw. EU-Richtlinie 2014/34/EU)

Nr. A5E35855418A

Hersteller: Siemens Aktiengesellschaft
 Division Process Industries and Drives, Large Drives, PD LD

Anschrift: Hans-Loher-Straße 32
 D-94099 Ruhstorf a. d. Rott

Produktbezeichnung: Drehstrom-Asynchronmaschinen
 Zündschutzart Geräte-Staubexplosionsschutz durch Gehäuse „tc“
 Typ: A ... 071 ... bis / to A ... 800 ...
 E ... 071 ... bis / to E ... 800 ...
 D ... 071 ... bis / to D ... 910 ...

Alternative Typbezeichnung:
 1PS.07. bis / to 1PS.91.
 1MD.07. bis / to 1MD.35.
 1MV.35. bis / to 1MV.91.

Gerätegruppe II
 Gerätekategorie 3D

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:

bis 19.04.2016 EG-Richtlinie 94/9/EG:

Richtlinie des Europäischen Parlaments und des Rates vom 23. März 1994 zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen

ab 20.04.2016 EU-Richtlinie 2014/34/EU:

Richtlinie des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen. Amtsblatt der EU L96, 29.03.2014, S. 309-356

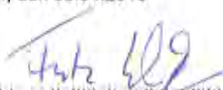
Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.

Wir bestätigen die Konformität des oben genannten Produktes mit den Normen:

Referenznummer	Ausgabedatum	Referenznummer	Ausgabedatum
EN 60079-0+A11	2013	EN 60079-31	2014

Das bezeichnete Produkt ist bestimmt zum Einbau in eine andere Maschine für den Einsatz in explosionsgefährdeten Bereichen der Zone 22 nach EN 60079-10-2 und Richtlinie 1999/92/EG.

Siemens Aktiengesellschaft
Ruhstorf, den 08.04.2016

i.V. 
 Fritz Winkler Unterschrift/Signature
 Werkleiter/Head of Manufacturing

i.V. 
 Dr. Harimut Vogel Unterschrift/Signature
 Produktsicherheitsbeauftragter / Product safety officer

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinie(n), ist jedoch keine Beschaffenheits- oder Haltbarkeitsgarantie.
Die Sicherheitshinweise der mitgelieferten Produktdokumentation sind zu beachten.

Siemens Aktiengesellschaft: Vorsitzender des Aufsichtsrats: Gerhard Cromme; Vorstand: Joe Kaeser, Vorsitzender; Roland Busch, Lisa Davis, Klaus Helmrich, Janina Kugel, Siegfried Russwurm, Ralf P. Thomas; Sitz der Gesellschaft: Berlin und München, Deutschland; Registergericht: Berlin Charlottenburg, HRB 12300, München, HRB 6684; WEEE-Reg.-Nr. DE 23691322

SIEMENS

Englisch / English

EC/EU Declaration of Conformity (according to Annex VII of EC Directive 94/9/EC, 2014/34/EU)

Manufacturer: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

The object of the declaration described above is in conformity with the relevant Union harmonization legislation:

≤ 19.04.2016 94/9/EC:

Directive of the European Parliament and the Council on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres.

≥ 20.04.2016 2014/34/EU:

Directive of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres. Official Journal of the EU, L96 29.03.2014, p. 309-356

This declaration of conformity is issued under the sole responsibility of the manufacturer.

We confirm conformity of the product indicated above with the standards: see page 1 and annex

The product indicated is intended to be installed in another machine for use in hazardous areas of zone 22 in accordance with EN 60079-10-2 and Directive 1999/92/EC.

This declaration is an attestation of conformity with the indicated Directive(s) but does not imply any guarantee of quality or durability.

The safety instructions of the accompanying product documentation shall be observed.

Tschechisch / český jazyk

Prohlášení o shodě s předpisy ES/EU (podle dodatku VII směrnice EU 94/9/ES, 2014/34/EU)

Výrobce: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Výše uvedený výrobek se shoduje s předpisy následujících harmonizovaných předpisů Evropské unie:

≤ 19.04.2016 94/9/ES:

směrnice Evropského parlamentu a Rady o sjednocení legislativy členských států EU týkající se přístrojů a ochranných systémů za účelem jejich správného používání v oblastech ohrožených explozí.

≥ 20.04.2016 2014/34/EU:

směrnice Evropského parlamentu a Rady ze dne 26. února 2014 o harmonizaci legislativy členských států EU týkající se zařízení a ochranných systémů za účelem jejich správného používání v oblastech ohrožených nebezpečím výbuchu. Oficiální tisk EU, L96 29.03.2014, str. 309-356.

Veškerou odpovědnost za vystavení tohoto Prohlášení o shodě nese výrobce produktu.

Potvrzujeme tímto, že se výše uvedený výrobek shoduje s normami: viz strana 1 a příloha

Uvedený výrobek je určen pro instalaci do jiných strojů pro použití v nebezpečných oblastech zóny 22 podle normy EN 60079-10-2 a směrnice 1999/92/EG.

Toto prohlášení potvrzuje shodu s uvedenými směrnicemi, neznamená však záruku jakosti nebo trvanlivosti.

Musí být dodržovány bezpečnostní pokyny uvedené v doprovodné dokumentaci tohoto produktu.

SIEMENS

Dänisch / dansk

EF-overensstemmelseserklæring (i henhold til bilag VII I EF-direktivet 94/9/EF, 2014/34/EU)

Fabrikant: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Genstanden for erklæringen, som beskrevet ovenfor, er i overensstemmelse med den relevante EU-harmoniseringslovgivning:

≤ 19.04.2016 94/9/EF:

Directive of the European Parliament and the Council on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres.

≥ 20.04.2016 2014/34/EU:

Europa-Parlamentets og Rådets direktiv 2014/34/EU af 26. februar 2014 om harmonisering af medlemsstaternes love om materiel og sikringssystemer til anvendelse i en potentielt eksplosiv atmosfære. Den Europæiske Unions Tidende EU, L96 29.03.2014, s. 309-356

Denne overensstemmelseserklæring udstedes på fabrikantens ansvar.

Vi bekræfter det ovennævnte produkts overensstemmelse med standarderne: se side 1 og bilag

Det beskrevne produkt er bestemt til indbygning i en anden maskine til indsats i eksplosive områder i zone 22 i overensstemmelse med EN 60079-10-2 og direktiv 1999/92/EF.

Denne erklæring gælder som dokumentation for overensstemmelse med de nævnte direktiver men er dog ingen beskaffenheds- eller holdbarhedsgaranti. Sikkerhedshenvisningerne i den medleverede produktinformation skal overholdes.

Estnisch / eesti keel

ELi vastavusdeklaratsioon (vastavalt EÜ direktiivi 94/9/EÜ, 2014/34/EL lisale VII)

Tootja: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Deklaratsiooni ülalkirjeldatud ese on kooskõlas Liidu asjaomase harmoniseeritud seadusandlusega:

≤ 19.04.2016 94/9/EÜ:

Euroopa Parlamendi ja Nõukogu direktiiv plahvatusohtlikus keskkonnas kasutatavaid seadmeid ja kaitsesüsteeme käsitlevate liikmesriikide õigusaktide ühtlustamise kohta.

≥ 20.04.2016 2014/34/EL:

Euroopa Parlamendi ja nõukogu direktiiv 26. veebruarist 2014 liikmesriikide seaduste harmoniseerimise kohta varustuse ja kaitsesüsteemide kohta, mis on ette nähtud kasutamiseks potentsiaalselt plahvatusohtlikes atmosfäärides. ELi ametlikud aktid, L96 29.03.2014, lk 309-356

Käesolev vastavusdeklaratsioon on välja antud tootja ainuisikulisel vastutusel.

Me deklareerime ülalnimetatud toote vastavust järgmistele standarditele: vt lk 1 ja lisa

Mainitud toode on ette nähtud teise masinasse installeerimiseks kasutuseesmärgiga EN 60079-10-2 ja direktiivi 1999/92/EÜ kohase tsooni 22 ohtlikes piirkondades.

Käesolev deklaratsioon on vastavuse tõend mainitud direktiivi(de)ga, kuid ei hõlma mitte mingisugust garantiid ega vastupidavuskvaliteeti. Tuleb järgida tootega kaasapandud dokumentatsioonis esitatud ohutusjuhiseid.

SIEMENS

Griechisch / ελληνική γλώσσα

Δήλωση συμμόρφωσης ΕΚ/ΕΕ (σύμφωνα με το Παράρτημα VII της Κοινοτικής Οδηγίας 94/9/ΕΚ, 2014/34/ΕΕ)

Κατασκευαστής: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Το αντικείμενο της δήλωσης που περιγράφεται παραπάνω συμμορφώνεται με τη σχετική Κοινοτική νομοθεσία περί εναρμόνισης:

≤ 19.04.2016 94/9/ΕΚ:

Οδηγία του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου για την προσέγγιση των νομικών διατάξεων των χωρών μελών που αφορούν εξοπλισμό και συστήματα προστασίας που προορίζονται για χρήση σε περιοχές με κίνδυνο έκρηξης.

≥ 20.04.2016 2014/34/ΕΕ:

Οδηγία της 26^{ης} Φεβρουαρίου 2014 του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου για την για την εναρμόνιση των νομοθεσιών των κρατών μελών σχετικά με τις συσκευές και τα συστήματα προστασίας που προορίζονται για χρήση σε εκρηξιμικές ατμόσφαιρες. Επίσημη Εφημερίδα της ΕΕ, L96 29.03.2014, σελ. 309-356

Την αποκλειστική ευθύνη για την έκδοση την παρούσας Δήλωσης συμμόρφωσης την φέρει ο κατασκευαστής

Με το παρόν πιστοποιούμε τη συμμόρφωση του ανωτέρω αναφερόμενου προϊόντος με τα πρότυπα:
βλ. σελίδα 1 και παράρτημα

Το αναφερόμενο προϊόν προορίζεται για εγκατάσταση σε άλλη μηχανή για χρήση σε περιοχές με κίνδυνο έκρηξης της ζώνης 22 σύμφωνα με το EN 60079-10-2 και την Οδηγία 1999/92/ΕΚ.

Αυτή η δήλωση πιστοποιεί τη συμμόρφωση με την αναφερόμενη Οδηγία, ωστόσο δεν αποτελεί εγγύηση καλής κατάστασης ή διάρκειας ζωής. Πρέπει να τηρούνται οι οδηγίες ασφαλείας της συνοδευτικής τεκμηρίωσης προϊόντος

Spanisch / español

Declaración CE/UE de conformidad (según el Anexo VII de la Directiva 94/9/CE, 2014/34/UE)

Fabricante: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

El producto arriba mencionado es conforme a la legislación de armonización de la Unión pertinente:

≤ 19.4.2016 94/9/CE:

Directiva del Parlamento Europeo y del Consejo para la armonización de las leyes de los estados miembros relativa a aparatos y sistemas de protección para uso conforme en atmósferas potencialmente explosivas.

≥ 20.04.2016 2014/34/UE:

Directiva del Parlamento Europeo y del Consejo de 26 de febrero de 2014 sobre la armonización de las legislaciones de los Estados miembros en materia de aparatos y sistemas de protección para uso en atmósferas potencialmente explosivas. Diario Oficial de la Unión Europea EU, L96 29.03.2014, págs. 309-356

La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante.
Confirmamos que el producto arriba mencionado cumple las siguientes normas: véase la página 1 y el anexo

El producto mencionado está previsto para su montaje en otra máquina prevista para su instalación en atmósferas potencialmente explosivas de la zona 22 conforme a EN 60079-10-2 y la directiva 1999/92/CE.

Esta declaración certifica el cumplimiento de las directivas mencionadas pero no garantiza las características ni la durabilidad. Deben observarse las consignas de seguridad de la documentación de producto suministrada.

SIEMENS

Französisch / français

Déclaration CE de conformité (selon annexe VII de la directive 94/9/CE, 2014/34/UE)

Constructeur : *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Le produit sus-mentionné est conforme à la législation communautaire d'harmonisation pertinente:

≤ 19.04.2016 94/9/CE:

Directive du parlement européen et du conseil concernant le rapprochement des législations des États membres pour les appareils et les systèmes de protection destinés à être utilisés en atmosphères explosibles.

≥ 20.04.2016 2014/34/UE:

Directive du Parlement européen et du Conseil du 26 février 2014 relative à l'harmonisation des législations des États membres concernant les appareils et les systèmes de protection destinés à être utilisés en atmosphères explosibles. Journal officiel de l'UE L96, 29.03.2014, p. 309-356

Le fabricant est seul responsable de l'établissement de cette déclaration de conformité.

Nous certifions la conformité du produit susmentionné avec les normes suivantes : voir page 1 et annexe

Le produit désigné est destiné à l'implantation dans une autre machine pour l'utilisation en atmosphère explosible, zone 22 selon la norme EN 60079-10-2 et la directive 1999/92/EG.

Ce certificat atteste la conformité aux directives mentionnées, mais ne tient pas lieu de garantie de qualité ni de longévité.
Respecter les consignes de sécurité figurant dans la documentation produit fournie.

Italianisch / italiano

Dichiarazione di conformità CE/UE (secondo l'allegato VII della Direttiva Europea 94/9/CE, 2014/34/UE)

Costruttore: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

L'oggetto della dichiarazione sopra descritto è conforme alle prescrizioni di armonizzazione pertinenti dell'Unione

≤ 19.04.2016 94/9/CE:

Direttiva del Parlamento Europeo e del Consiglio concernente il ravvicinamento delle legislazioni degli Stati membri relativa agli apparecchi e sistemi di protezione destinati ad essere utilizzati in atmosfera potenzialmente esplosiva.

≥ 20.04.2016 2014/34/UE:

Direttiva del Parlamento Europeo e del Consiglio del 26 Febbraio 2014 concernente l'armonizzazione delle legislazioni degli Stati membri relative agli apparecchi e sistemi di protezione destinati a essere utilizzati in atmosfera potenzialmente esplosiva. Gazzetta Ufficiale della UE, L96 29.03.2014, p. 309-356

Questa dichiarazione di conformità è rilasciata sotto la sola responsabilità del costruttore.

Confermiamo la conformità del prodotto sopra designato alle norme: vedi pagina 1 e allegato

Il prodotto designato è destinato a essere installato in un'altra macchina per l'impiego in aree a rischio di esplosione della Zona 22 secondo la norma EN 60079-10-2 e la Direttiva 1999/92/CE.

Questa dichiarazione certifica la conformità con le Direttive citate, non costituisce però alcuna garanzia di caratteristiche di prodotto oppure di durata. Le avvertenze di sicurezza riportate nella documentazione di prodotto allegata devono essere rispettate.

SIEMENS

Lettisch / latviešu

EK/ES atbilstības deklarācija (saskaņā ar EK Direktīvas 94/9/EK, 2014/34/ES pielikumu VII)

Ražotājs: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf

Iepriekš aprakstītās deklarācijas objekts atbilst attiecīgajiem Savienības saskaņotajiem tiesību aktiem:

≤ 19.04.2016 94/9/EK:

Eiropas parlamenta un padomes direktīva, saskaņā ar dalībvalstu likumiem, attiecībā uz ieceri izmantot ierīces un aizsardzības sistēmas iespējami sprādzienbīstamā vidē.

≥ 20.04.2016 2014/34/ES:

Eiropas Parlamenta un Padomes 2014. gada 26. februāra Direktīva par dalībvalstu tiesību aktu saskaņošanu attiecībā uz iekārtām un aizsardzības sistēmām, kas paredzētas lietošanai sprādzienbīstamā vidē. ES Oficiālais vēstnesis, L96 29.03.2014, 309.-356. lpp.

Par šīs atbilstības deklarācijas sastādīšanu ir atbildīgs vienīgi ražotājs.**Mēs apstiprinām iepriekš minētā izstrādājuma atbilstību standartiem:** skatiet 1. lappusi un pielikumu

Norādītais izstrādājums ir paredzēts uzstādīšanai citā iekārtā un izmantošanai zonas 22 bīstamajās vietās saskaņā ar standartu EN 60079-10-2 un Direktīvu 1999/92/EK.

Ar šo deklarāciju tiek apliecināta atbilstība norādītajai(-ām) direktīvai(-ām), bet tā neietver nekādu kvalitātes vai ilgmūžīguma garantiju. Jāievēro pievienotās izstrādājuma dokumentācijas drošības instrukcijas.

Litauisch / lietuvių

EB/ES atitiktības deklarācija (pagal EB direktīvas 94/9/EB, 2014/34/ES VII pielikumu)

Gamintojas: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Pirmiau aprašytas deklaruojamas dalykas atitinka atitinkamus Sąjungos derinamuosius teisės aktus:

≤ 19.4.2016 94/9/EB:

Europos Parlamento ir Tarybos direktyva dėl valstybių narių įstatymų, susijusių su potencialiai sprogioje aplinkoje naudojama įranga ir apsaugos sistemomis, suderinimo

≥ 20.04.2016 2014/34/ES

2014 m. vasario 26 d. Europos Parlamento ir Tarybos direktyva dėl valstybių narių įstatymų, susijusių su potencialiai sprogioje aplinkoje naudojama įranga ir apsaugos sistemomis, suderinimo
Europos Sąjungos oficialusis leidinys, L96 2014.03.29, p. 309–356

Ši atitiktības deklarācija išduota tik gamintojo atsakomybe.**Tvirtiname, kad pirmiau nurodytas gaminys atitinka standartus:** žr. 1 p. ir priedą

Nurodytas produktas skirtas montuoti į kitą mašiną ir naudoti pavojingoje 22 zonos aplinkoje pagal EN 60079-10-2 ir direktyvą 1999/92/EB.

Ši deklaracija patvirtina atitikimą nurodytai (-oms) direktyvai (-oms), tačiau negarantuoja kokybės ar atsparumo.

Būtina laikytis pridedamoje gaminio dokumentacijoje pateiktų saugos nurodymų.

SIEMENS

Ungarisch / magyar nyelv

EK/EU megfeleléségi nyilatkozat (a 94/9/EK, 2014/34/EU irányelv VII függeléke szerint)

Gyártó: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

A fentiekben leírt nyilatkozat tárgya megfelel a vonatkozó uniós harmonizálási jogszabálynak:

≤ 19.04.2016 94/9/EK:

Az Európai Parlament és az Európa Tanács irányelve a tagállamok készülékekre és védelmi rendszerekre vonatkozó jogi előírásainak harmonizálásáról a robbanásveszélyes területeken való rendeltetésszerű használathoz.

≥ 20.4.2016 2014/34/EU:

Az Európai Parlament és a Tanács irányelve (2014. február 26.) a robbanásveszélyes légkörben való használatra szánt felszerelésekre és védelmi rendszerekre vonatkozó tagállami jogszabályok harmonizációjáról. Az Európai Unió Hivatalos Lapja, L96 2014.03.29., 309-356 o.

Ez a megfeleléségi nyilatkozat a gyártó kizárólagos felelőssége alatt lett kiadva.

Megerősítjük a fent jelezett termékek szabványok szerinti megfeleléségét: lásd 1. oldal és melléklet

A jelzett termék 22 veszélyes zónaterületeken használatos másik gépbe lesz beszerelve az EN 60079-10-2 és az 1999/92/EK irányelv szerint.

Ez a nyilatkozat tanúsítja a jelzett irányelv(ek) szerinti megfelelést, de nem jelent garanciát a minőségre vagy tartósságra nézve. A kísérő termékdokumentáció biztonsági utasításait figyelembe kell venni.

Maltesisch/ Malti

Dikjarazzjoni ta' Konformità tal-UE (skont l-Anness VII tad-Direttiva 94/9/KE, 2014/34/UE tal-KE)

Manifattur: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Il-prodott indikat fid-dikjarazzjoni msemmija hawn fuq huwa f'konformità mal-leġiżlazzjoni rilevanti tal-Unjoni dwar l-armonizzazzjoni:

≤ 19.04.2016 94/9/KE:

Direttiva tal-parlament Ewropew u tal-Kunsill dwar l-approssimazzjoni tal-liġijiet ta' l-Istati Membri li jirrigwardaw tagħmir u sistemi ta' sigurtà għal użu skond ir-regolamenti f' zoni fejn hemm periklu ta' splużżjonijiet.

≥ 20.04.2016 2014/34/UE:

Direttiva tal-Parlament Ewropew u tal-Kunsill tas-26 ta' Frar 2014 dwar l-armonizzazzjoni tal-liġijiet tal-Istati Membri relativament għal tagħmir u sistemi ta' protezzjoni maħsuba għall-użu f'atmosferi potenzjalment esplużivi. Gurnal Uffiċjali tal-UE, L96 29.03.2014, p. 309-356

Din id-dikjarazzjoni ta' konformità hija maħruġa bir-responsabilità unika tal-manifattur.

Nikkonfermaw il-konformità tal-prodott indikat hawn fuq mal-istandards: ara paġna 1 u l-anness

Il-prodott indikat huwa maħsub biex jiġi mmuntat f'magna oħra għall-użu f'zoni ta' periklu taż-zona 22 f'konformità ma' EN 60079-10-2 u mad-Direttiva 1999/92/KE.

Din id-dikjarazzjoni tiċċertifika l-konformità mad-Direttiva/i indikat/i izda ma tiggarrantix il-kwalità tal-prodott jew kemm idum iservi. L-istruzzjonijiet tas-sikurezza fid-dokumentazzjoni tal-prodott għandhom jiġu osservati.

SIEMENS

Niederländisch / Nederlandse

EG/EU-conformiteitsverklaring (volgens bijlage VII van de EU-richtlijn 94/9/EG, 2014/34/EU)

Fabrikant: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Het omschreven product stemt overeen met de voorschriften van de volgende Europese richtlijn:

≤ 19.4.2016 94/9/EG

Richtlijn van het Europees Parlement en de Raad inzake de onderlinge aanpassing van de wetgevingen van de lidstaten betreffende apparaten en beveiligingssystemen bedoeld voor gebruik op plaatsen waar ontploffingsgevaar kan heersen.

≥ 20.4.2016 2014/34/EU

Richtlijn van het Europees Parlement en de Raad d.d. 26 februari 2014 inzake de onderlinge aanpassing van de wetgevingen van de lidstaten betreffende apparaten en beveiligingssystemen bedoeld voor gebruik op plaatsen waar ontploffingsgevaar kan heersen. Publicatieblad van de EU, L96 29-03-2014, p. 309-356

Deze conformiteitsverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabrikant. Wij bevestigen de conformiteit van bovengenoemd product met de normen: zie pagina 1 en de bijlage

Het omschreven product is bedoeld voor inbouw in een andere machine voor gebruik op explosiegevaarlijke plaatsen van zone 22 volgens EN 60079-10-2 en richtlijn 1999/92/EC.

Deze verklaring bevestigt de conformiteit met de genoemde richtlijn(en), maar geeft geen garantie betreffende de gesteldheid of de houdbaarheid. De veiligheidsaanwijzingen in de meegeleverde productdocumentatie dienen te worden nageleefd

Norwegisch / Norsk

EU-konformitetserklæring (i henhold til vedlegg VII til EUs direktiv 94/9/EU, 2014/34/EU)

Produsent: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Objektet for erklæringen overfor er i overensstemmelse med forskriftene i følgende EU-direktiv angående tilpasning:

≤ 19.4.2016 94/9/EU:

Direktiv fra EU-parlamentet og rådet for tilpasning av medlemsstatenes rettslige forskrifter for utstyr og beskyttelsessystemer for forskriftemessig bruk i eksplosjonsfarlige områder.

≥ 20.4.2016 2014/34/EU:

Direktiv fra Europaparlamentet og Rådet for tilpasning av 26 februar 2014 av medlemsstatenes lover for utstyr og beskyttelsessystemer ment for bruk i eksplosjonsfarlige omgivelser. Official Journal of the EU, L96 29.03.2014, p 309-356

Produsenten har det hele og fulle ansvar for utstedelsen av denne konformitetserklæringen.

Vi bekrefter at det ovennevnte produktet er i overensstemmelse med standardene (se side 1 og vedlegg)

Det omtalte produktet er ment for innbygging i en annen maskin for bruk i eksplosjonsfarlige områder i sone 22 i henhold til EN 60079-10-2 og direktiv 1999/92/EF.

Denne erklæringen bekrefter at produktet er i overensstemmelse med det angitte direktivet (de angitte direktivene), men er ingen garanti for kvalitet eller levetid. Sikkerhetshenvisningene i den medfølgende produktokumentasjonen må følges.

SIEMENS

Polnisch / polszczyzna

Deklaracja zgodności UE (zgodnie z załącznikiem VII do Dyrektywy 94/9/WE, 2014/34/UE)

Producent: *Siemens Aktiengesellschaft*
Hans-Loher-Straße
D-94099 Ruhstorf a. d. Rott

Przedmiot deklaracji opisany powyżej jest zgodny z właściwymi przepisami zharmonizowanymi Unii Europejskiej:

≤ 19.4.2016 94/9/WE:

Dyrektywa Parlamentu Europejskiego i Rady ds. Harmonizacji Przepisów Prawnych Państw Członkowskich dla Urządzeń i Systemów Ochronnych w celu ich użytkowania zgodnego z przeznaczeniem w obszarach zagrożonych wybuchami.

≥ 20.4.2016 2014/34/UE:

Dyrektywą Parlamentu Europejskiego i Rady z dnia 26 lutego 2014 w sprawie harmonizacji ustawodawstw państw członkowskich odnoszących się do urządzeń i systemów ochronnych przeznaczonych do użytku w atmosferze potencjalnie wybuchowej. Dz. U. UE, L96 29.03.2014, str. 309-356

Niniejsza deklaracja zgodności wydawana jest na wyłączną odpowiedzialność producenta.

Potwierdzamy zgodność produktu wskazanego powyżej z następującymi normami: patrz strona 1 oraz załącznik

Wskazany produkt przeznaczony jest do instalacji w innej maszynie przeznaczonej do użytkowania w obszarach niebezpiecznych strefy 22 zgodnie z normą EN 60079-10-2 oraz Dyrektywą 1999/92/WE.

Niniejsza deklaracja stanowi zaświadczenie zgodności ze wskazanymi Dyrektywami, jednak nie implikuje żadnej gwarancji jakości lub trwałości. Należy przestrzegać instrukcji bezpieczeństwa zawartych w dokumentacji dołączonej do produktu.

Portugiesisch / português

Declaração de conformidade CE/UE (segundo Anexo VII da Diretiva 94/9/CE, 2014/34/UE)

Fabricante: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

O produto acima especificado está em conformidade com a legislação de harmonização da União Europeia relevante:

≤ 19.4.2016 94/9/CE:

Directiva do Parlamento Europeu e do Conselho relativa à aproximação das legislações dos Estados-Membros sobre aparelhos e sistemas de protecção destinados a serem utilizados em conformidade com as especificações em atmosferas potencialmente explosivas

≥ 20.4.2016 2014/34/UE:

Diretiva do Parlamento Europeu e do Conselho de 26 de fevereiro de 2014 relativa à harmonização das leis dos Estados-Membros sobre aparelhos e sistemas de proteção destinados a serem utilizados em atmosferas potencialmente explosivas. Jornal Oficial da UE, L96 29.03.2014, p. 309-356

A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante.

Certificamos a conformidade do produto supracitado com as seguintes normas: consulte a página 1 e anexo

O produto supracitado destina-se à instalação noutra máquina para a utilização em atmosferas potencialmente explosivas da zona 22 em conformidade com a Norma EN 60079-10-2 e Diretiva 1999/92/CE.

A presente declaração atesta a conformidade com a(s) Diretiva(s) mencionada(s), no entanto, não constitui uma garantia de qualidade ou durabilidade. Respeitar as indicações de segurança da documentação do produto juntamente fornecida.

SIEMENS

Russisch / русский язык

Декларация о соответствии стандартам ЕС (согласно приложению VII Директивы 94/9/EG, 2014/34/EU)

Производитель: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Описанный выше объект декларации отвечает требованиям соответствующего законодательства ЕС по гармонизации:

≤ 19.4.2016 94/9/EG:

Директива Европейского Парламента и Совета по адаптации правовых предписаний стран-участниц на устройства и системы защиты, применяемые во взрывоопасных помещениях.

≥ 20.4.2016 2014/34/EU:

Директива Европейского парламента и Совета от 26 февраля 2014 по гармонизации законов стран ЕС об оборудовании и защитных системах, предназначенных для использования в потенциально взрывоопасной атмосфере. Официальный журнал ЕС, L96 29.03.2014, с. 309-356

Эта декларация о соответствии выдана под исключительную ответственность производителя.

Подтверждаем соответствие вышеназванного изделия следующим стандартам: см. с. 1 и приложение

Названное изделие предназначено для встраивания в другой механизм для применения во взрывоопасных помещениях зоны 22 согласно EN 60079-10-2 и Директиве 1999/92/EG.

Данная декларация подтверждает соответствие названным Директивам, но не является гарантией качества или долговечности. Необходимо соблюдать указания по технике безопасности в документации из комплекта поставки изделия.

Slowakisch / slovenský jazyk

Prehlásenie o zhode s normami EÚ (v súlade s prílohou VII Smernice 94/9/ES, 2014/34/EÚ)

Výrobca: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Vyššie popísaný predmet prehlásenia je v súlade s príslušnými harmonizačnými právnymi predpismi Únie:

≤ 19.4.2016 94/9/ES:

Smernica Európskeho parlamentu a Rady o zosúladiení zákonných požiadaviek členských štátov týkajúcich sa prístrojov a ochranných systémov, ktoré sú určené na použitie v rámci stanovených predpisov v prostrediach s nebezpečím výbuchu.

≥ 20.4.2016 2014/34/EÚ:

Smernica Európskeho parlamentu a Rady 2014/34/EÚ z 26. februára 2014 o harmonizácii právnych predpisov členských štátov týkajúcich sa zariadení a ochranných systémov určených na použitie v potenciálne výbušnej atmosfére. Úradný vestník EÚ, L96 29.03.2014, s. 309-356

Toto prehlásenie o zhode sa vydáva na výhradnú zodpovednosť výrobcu

Potvrďujeme zhodu horeuvedeného výrobku s normami: pozri strana 1 a príloha

Uvedený výrobok je určený na zabudovanie do iného stroja pre použitie v prostredí s nebezpečenstvom výbuchu v zóne 22 v súlade s EN 60079-10-2 a smernicou 1999/92/ES.

Toto prehlásenie osvedčuje zhodu s uvedenými smernicami, neznamená však záruku vlastností alebo trvanlivosti. Dodržiavajte bezpečnostné pokyny podľa dodanej dokumentácie k výrobku.

SIEMENS

Slowenisch / slovenščina

ES/EU izjava o skladnosti (skladno z dodatkom VII Direktive 94/9/ES, 2014/34/EU)

Izdelovalec: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Predmet izjave, ki je opisan zgoraj, je skladen z ustrezno usklajevalno zakonodajo unije:

≤ 19.4.2016 94/9/ES:

Smernice Evropskega parlamenta in sveta za zakonsko prilagajanje predpisov držav članic za naprave in varovalne sisteme. V eksplozijsko ogroženih področjih velja uporaba ustreznih določil.

≥ 20.4.2016 2014/34/EU:

Direktiva Evropskega Parlamenta in Sveta z dne 26. februarja 2014 o usklajevanju zakonov držav članic, ki se navezujejo na opremo in zaščitne sisteme, namenjene za uporabo v potencialno eksplozivnih ozračjih.

Uradni list EU, L96 29.03.2014, str. 309-356

Ta izjava o skladnosti je izdana na izključno odgovornost izdelovalca.

Potrjujemo skladnost izdelka, ki je imenovan zgoraj, s standardi: glejte stran 1 in dodatek

Navedeni izdelek je namenjen za namestitev v drug stroj, ki se uporablja v nevarnih območjih cone 22 v skladu s standardom EN 60079-10-2 in Direktivo 1999/92/ES.

Ta izjava je potrdilo skladnosti z navedenimi direktivami, vendar ne predstavlja jamstva za kakovost ali rok uporabnosti. Upoštevajte varnostna navodila iz spremne dokumentacije izdelka.

Finnisch / suomi

EU-vaatimustenmukaisuusvakuutus (EY-direktiivin 94/9/EY, 2014/34/EU liitteen VII mukaan)

Valmistaja: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Edellä kuvattu vakuutuksen kohde on unionin sovellettavan yhdenmukaistamislainsäädännön mukainen:

≤ 19.4.2016 94/9/EY

Euroopan Parlamentin ja Neuvoston direktiivi räjähdyksvaarallisissa tiloissa käytettäväksi tarkoitettuja laitteita ja suojajärjestelmiä koskevan jäsenvaltioiden lainsäädännön lähentämisestä..

≥ 20.4.2016 2014/34/EU

Euroopan parlamentin ja neuvoston direktiivi 2014/34/EU, annettu 26. päivänä helmikuuta 2014, räjähdyksvaarallisissa tiloissa käytettäväksi tarkoitettuja laitteita ja suojajärjestelmiä koskevan jäsenvaltioiden lainsäädännön yhdenmukaistamisesta. EU:n virallinen lehti, L96 29.03.2014, s. 309-356

Vastuu tämän vaatimustenmukaisuusvakuutuksen laadinnasta on yksinomaan valmistajalla.

Vakuutamme, että edellä mainittu tuote vastaa seuraavia standardeja: ks. sivu 1 ja liite

Mainittu tuote on tarkoitettu asennettavaksi toiseen koneeseen, jota käytetään tilaluokan 22 vaarallisissa tiloissa standardin EN 60079-10-2 ja direktiivin 1999/92/EY mukaisesti.

Tämä vakuutus todistaa yhdenmukaisuuden mainittujen direktiivien kanssa, mutta se ei anna takuuta ominaisuuksista tai kestävyyydestä. Tuotteen mukana toimitettavan dokumentaation turvallisuusohjeita on noudatettava.

SIEMENS

Schwedisch / svenska

EG/EU-försäkran om överensstämmelse (enligt bilaga VII till EG-direktiv 94/9/EG, 2014/34/EU)

Tillverkare: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Den märkta produkten stämmer överens med föreskrifterna i följande europeiska direktiv:

≤ 19.4.2016 94/9/EG:

Direktiv från det europeiska parlamentet och rådet för anpassning av medlemsstaternas rättsliga föreskrifter angående apparater och skyddssystem för användning inom bestämda områden med explosionsrisk.

≥ 20.4.2016 2014/34/EU:

Direktiv från det europeiska parlamentet och rådet från den 26 februari 2014 för anpassning av medlemsstaternas rättsliga föreskrifter angående apparater och skyddssystem för användning inom bestämda områden med explosionsrisk. Officiell EU-handling, L96 29.03.2014, s. 309-356

Denna försäkran om överensstämmelse är endast utfärdad under tillverkarens ansvar.**Vi bekräftar att produkten som anges ovan överensstämmer med normerna:** se sida 1 och bilagan

Den märkta produkten är avsedd att byggas in i en annan maskin för användning i områden med explosionsrisk i zon 22 i enlighet med EN 60079-10-2 och direktiv 1999/92/EC.

Denna förklaring garanterar överensstämmelse med nämnda standarder, men gäller inte som garanti av något slag.

Beakta säkerhetsanvisningarna i den medföljande produktokumentationen

Rumänisch / România

Declarație de conformitate CE/UE (în conformitate cu anexa VII a Directivei CE 94/9/CE, 2014/34/UE)

Producător: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Obiectul declarației descrise mai sus este conform cu legislația armonizată relevantă a Uniunii:

bis ≤ 19.4.2016 94/9/CE:

Directiva Parlamentului European și a Consiliului cu privire la uniformizarea legislației statelor membre pentru aparate și sisteme de protecție cu privire la utilizarea conformă cu scopul de fabricație în zone cu pericol de explozie.

ab ≥ 20.4.2016 2014/34/UE:

Directiva Parlamentului European și a Consiliului din 26 februarie 2014 privind armonizarea legislațiilor statelor membre referitoare la echipamentele și sistemele de protecție destinate utilizării în atmosfere potențial explozive. Jurnalul Oficial al UE, L96 29.03.2014, p. 309-356

Această declarație de conformitate este emisă pe responsabilitatea unică a producătorului.**Confirmăm conformitatea produsului indicat mai sus cu standardele:** consultați pagina 1 și anexa

Produsul indicat este destinat instalării într-o altă mașină prevăzută pentru utilizarea în spații periculoase din zona 22 în conformitate cu EN 60079-10-2 și Directiva 1999/92/CE.

Această declarație atestă conformitatea cu directiva sau directivele menționate, însă nu implică o garanție a calității sau durabilității.

Se vor respecta instrucțiunile de siguranță din documentația care însoțește produsul.

SIEMENS

Bulgarisch / български език

ЕС Декларация за съответствие (съгласно приложение VII на Директива на ЕС 94/9/ЕО, 2014/34/ЕС)

Производител: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Обозначеният продукт съответства на предписанията на следната хармонизирана европейска директива:

≤ 19.4.2016 94/9/ЕО:

Директива на Европейския парламент и съвет за правно уеднаквяване на нормативните актове на държавите членки за уреди и защитни системи за употреба съгласно предназначението във взривоопасни области.

≥ 20.4.2016 2014/34/ЕС:

Директива на Европейския парламент и на Съвета от 26 февруари 2014 за хармонизиране на законодателствата на държавите членки относно съоръженията и системите за защита, предназначени за използване в потенциално експлозивна атмосфера. Официален вестник на ЕС, L96 29.03.2014, стр. 309-356

Тази декларация е изготвена на собствена отговорност на производителя.

Ние потвърждаваме съответствието на гореспоменатия продукт със стандартите: виж страница 1 и Приложението

Обозначеният продукт е предназначен за вграждане в друга машина за използване в опасни области от зона 22 в съответствие с EN 60079-10-2 и Директива 1999/92/ЕС.

Тази декларация удостоверява съответствието с посочените директива (и), но не е гаранция за качество или трайност. Да се спазват указанията за безопасност от придружаващата продукта документация.

Kroatisch / hrvatski jezik

Izjava o usklađenosti EU-a (u skladu s Prilogom VII Direktive EZ-a 94/9/EZ, 2014/34/EU)

Proizvođač: *Siemens Aktiengesellschaft*
Hans-Loher-Straße 32
D-94099 Ruhstorf a. d. Rott

Predmet gore opisane izjave je usklađenost s relevantnim harmoniziranim zakonima Unije:

≤ 19.4.2016 94/9/EZ:

Direktiva Europskog parlamenta i Vijeća o usklađivanju zakonodavstava država članica u odnosu na opremu i zaštitne sustave namijenjene za uporabu u potencijalno eksplozivnim atmosferama.

ab ≥ 20.4.2016 2014/34/EU:

Direktiva Europskog parlamenta i Vijeća od 26. veljače 2014. o harmonizaciji zakona zemalja članica u pogledu opreme i zaštitnih sustava namijenjenih uporabi u potencijalno eksplozivnim atmosferama. Službeni list EU-a, L96 29.03.2014., str. 309.-356.

Ova izjava o usklađenosti izdaje se na vlastitu odgovornost proizvođača.

Potvrđujemo usklađenost gore navedenog proizvoda s normama: vidi stranicu 1. i prilog

Navedeni proizvod namijenjen je ugradnji u drugi stroj za uporabu u opasnim područjima zone 22 u skladu s normom EN 60079-10-2 i Direktivom 1999/92/EZ.

Ova je izjava potvrda o usklađenosti s navedenim Direktivama, ali ne znači jamstvo kvalitete ili trajnosti. Morate se pridržavati sigurnosnih uputa u pripadajućoj dokumentaciji o proizvodu.

C.3 IECEx certificate

If available, you can obtain the IECEx certificate on the Internet at the following address:

[Http://iecex.iec.ch/iecex/iecexweb.nsf/home?openform](http://iecex.iec.ch/iecex/iecexweb.nsf/home?openform) (<http://iecex.iec.ch/iecex/iecexweb.nsf/Home?OpenForm>)

IECEx Certified Equipment (PUBLIC AREA)

You are welcomed in as an **IECEx Guest User** [reader] and have full access to public information.

IECEx Certification Bodies please login to create or edit certificates [Password Protected] :

Quick access:
Type in CoC ref. number (e.g.: "IECEx BAS 10.0001")

Free text search:
You can use boolean operators "AND", "OR"

The IECEx Online Certified Equipment Scheme enables:

- IECEx Certification Bodies to issue new IECEx Certificates of Conformity "On-line"
- Full Public access to consult, view and print issued IECEx Certificates
- View Statistical information
- Export data to an Excel worksheet

For any questions, please contact Mr. Chris Agius , IECEx Secretary.

The IECEx ID for the IECEx certificate can be found on the rating plate of the machine or on the extra plate for explosion protection.

1. Enter the IECEx ID in the "Quick access" field.
You then have access to the certificate.
2. If you scroll down completely to the bottom of the page shown, you can open the certificate as a PDF file and download it.

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AD EC-Declaration of Conformity (U161)
AE EC-Declaration of Conformity (U163)

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