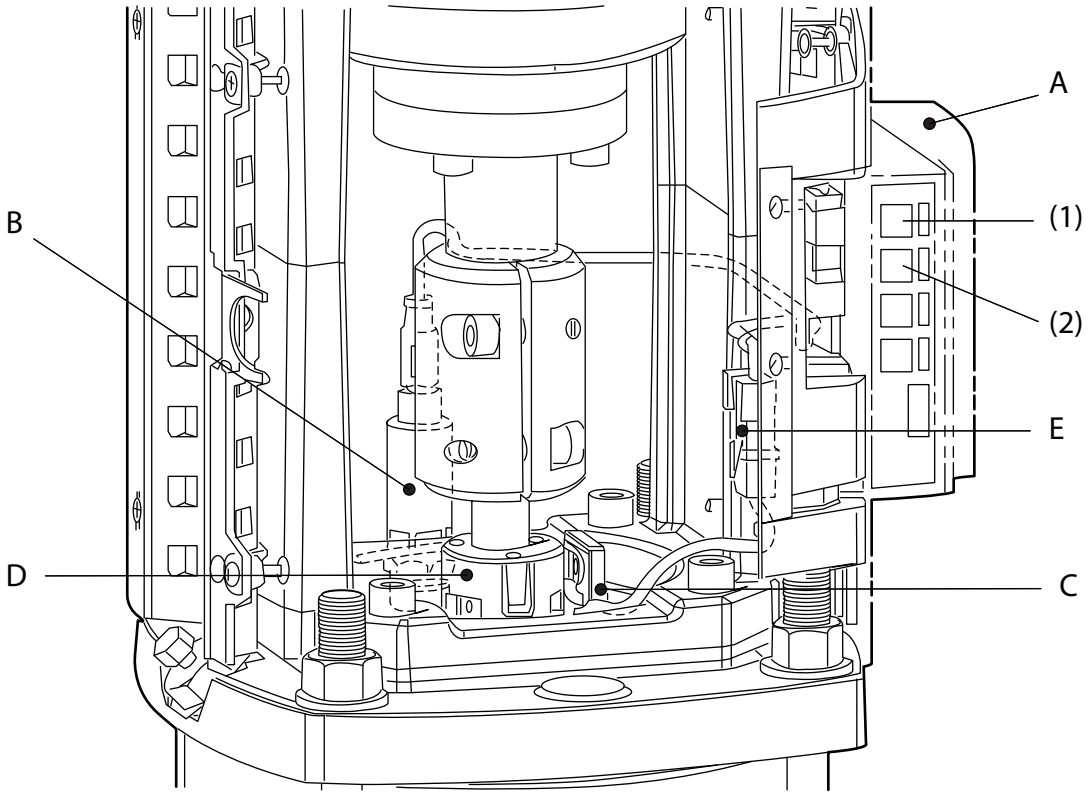
Pioneering for You

Wilo-Helix-V X-Care

de Einbau- und Betriebsanleitung
en Installation and operating instructions
fr Notice de montage et de mise en service
nl Inbouw- en bedieningsvoorschriften
ru Инструкция по монтажу и эксплуатации

4 157 926-Ed.04 / 2015-02-Wilo

Fig. 1



1. General

1.1 About this document

The language of the original operating instructions is English. All other languages of these instructions are translations of the original operating instructions.

These installation and operating instructions are an integral part of the product. They must be kept readily available at the place where the product is installed. Strict adherence to these instructions is a precondition for the proper use and correct operation of the product.

These installation and operating instructions correspond to the relevant version of the product and the underlying safety standards valid at the time of going to print.

EC declaration of conformity:

A copy of the EC declaration of conformity is a component of these operating instructions.

If a technical modification is made on the designs named there without our agreement, this declaration loses its validity.

2. Safety

These operating instructions contain basic information which must be adhered to during installation, operation and maintenance. For this reason, these operating instructions must, without fail, be read by the service technician and the responsible specialist/operator before installation and commissioning.

It is not only the general safety instructions listed under the main point “safety” that must be adhered to but also the special safety instructions with danger symbols included under the following main points.

2.1 Indication of instructions in the operating instructions

Symbols

General danger symbol

Danger due to electrical voltage

NOTE: ...

Signal words:

DANGER!
Acutely dangerous situation.
Non-observance results in death or the most serious of injuries.

WARNING!
The user can suffer (serious) injuries.
"Warning" implies that (serious) injury to persons is probable if this information is disregarded.

CAUTION!
There is a risk of damaging the product/unit.
"Caution" implies that damage to the product is likely if this information is disregarded.

NOTE:
Useful information on handling the product. It draws attention to possible problems.
Information that appears directly on the product, such as
- Direction of rotation arrow,
- Identifiers for connections,
- Name plate,
- Warning sticker

must be strictly complied with and kept in legible condition.

2.2 Personnel qualifications

The installation, operating, and maintenance personnel must have the appropriate qualifications for this work. Area of responsibility, terms of reference and monitoring of the personnel are to be ensured by the operator. If the personnel are not in possession of the necessary knowledge, they are to be trained and instructed. This can be accomplished if necessary by the manufacturer of the product at the request of the operator.

2.3 Danger in the event of non-observance of the safety instructions

Non-observance of the safety instructions can result in risk of injury to persons and damage to the environment and the product/unit. Non observance of the safety instructions results in the loss of any claims to damages.

In detail, non-observance can, for example, result in the following risks:
- Danger to persons from electrical, mechanical and bacteriological influences,
- Damage to the environment due to leakage of hazardous materials,
- Property damage,
- Failure of important product/unit functions,
- Failure of required maintenance and repair procedures.

2.4 Safety consciousness on the job

The safety instructions included in these installation and operating instructions, the existing national regulations for accident prevention together with any internal working, operating and safety regulations of the operator are to be complied with.

2.5 Safety instructions for the operator

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- If hot or cold components on the product/the unit lead to hazards, local measures must be taken to guard them against touching.
- Guards protecting against touching moving components (such as the coupling) must not be removed whilst the product is in operation.

- Leakages (e.g. from the shaft seals) of hazardous fluids (which are explosive, toxic or hot) must be led away so that no danger to persons or to the environment arises. National statutory provisions are to be complied with.
- Highly flammable materials are always to be kept at a safe distance from the product.
- Danger from electrical current must be eliminated. Local directives or general directives [e.g. IEC, VDE etc.] and local power supply companies must be adhered to.

2.6 Safety instructions for installation and maintenance work

The operator must ensure that all installation and maintenance work is carried out by authorised and qualified personnel, who are sufficiently informed from their own detailed study of the operating instructions.

Work on the product/unit must only be carried out when at a standstill. It is mandatory that the procedure described in the installation and operating instructions for shutting down the product/unit be complied with.

Immediately on conclusion of the work, all safety and protective devices must be put back in position and/or recommissioned.

2.7 Unauthorised modification and manufacture of spare parts

Unauthorised modification and manufacture of spare parts will impair the safety of the product/personnel and will make void the manufacturer's declarations regarding safety.

Modifications to the product are only permissible after consultation with the manufacturer. Original spare parts and accessories authorised by the manufacturer ensure safety. The use of other parts will absolve us of liability for consequential events.

2.8 Improper use

The operating safety of the supplied product is only guaranteed for conventional use in accordance with Section 4 of the operating instructions. The limit values must on no account fall under or exceed those specified in the catalogue/data sheet.

3. Transport and interim storage

When receiving the material, check that there has been no damage during the transport. If shipping damage has occurred, take all necessary steps with the carrier within the allowed time.

CAUTION! Outside influences may cause damages.

If the delivered material is to be installed later on, store it in a dry place and protect it from impacts and any outside influences (humidity, frost etc.).

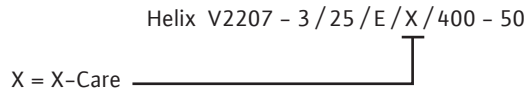
Handle the product carefully so as not to damage the unit prior to installation.

4. Application

This equipment is used to monitor and record data related to Helix pump operations for all kinds of application.

5. Technical data

5.1 X-Care pump designation



5.2 Data table

Maximum operating pressure	
Maximum pressure	16 or 25 bar depending on pump maximum pressure
Temperature range	
Liquid temperature	-20 to +120 °C -30 to +120 °C if full stainless steel
Ambient temperature	Storage: -20 to +40°C Operation: -10 to +40°C
Ambient humidity	< 90% for 55°C
Electrical data	
Motor Protection index	IP 55
Overvoltage category	II
Electromagnetic compatibility : • residential emission • industrial immunity	 EN 61000-6-3 EN 61000-6-2
Operating voltages	1~ ; 100 / 240V ±10% ; 50 / 60Hz ±5%
Power consumption	< 4.2W
Power cable section	Conductor: 0,2 to 2,5 mm² stranded or rigid wires Insulating diameter : 5 to 10 mm

5.3 Scope of supply

- Installation and operating instructions .
- G1/2 filling plug with o-ring (to be used in case of pressure sensor replacement).

5.4 Accessories

Original accessories are available for X-Care.

Designation	Article no.
IR-module: infrared communication interface for PDA (SDIO slot)	2066810

Please contact your Wilo sales office for accessories list.

6. Description and function

6.1 Product description

FIG. 1

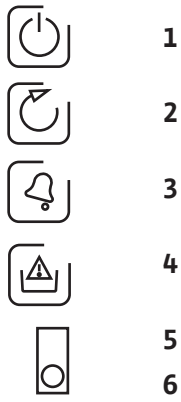
A – X-Care
B – Pressure sensor
C – Speed sensor
D – Cartridge seal
E – Cartridge seal connector

6.2 Design of product

- X-Care device is available on all Helix pumps.
- It detects abnormal operations like dry running or remaining air at the top of the pump that could lead to mechanical seal failure.
- One dry contact relay allows defect monitoring if selected. When it is wired to a supply contactor that could protect pump in an effective way.
- Communication features allow status and data exchange to supervisory control system.

6.3 Description of display

Display overview



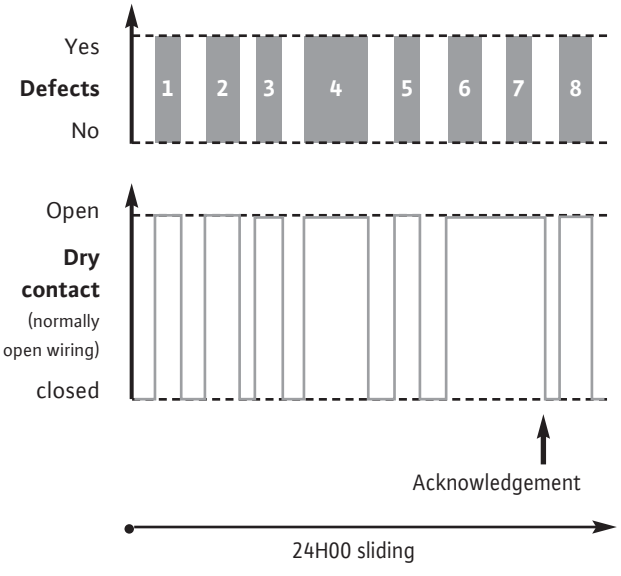
Pos.	Description
1	Power supply indicator
2	Direction of rotation indicator
3	Other defects indicator
4	Dry-running detection indicator
5	Infrared window
6	Infrared data transfer led

Display description

Symbol	Colour	Description
	OFF	X-Care power OFF
	White	X-Care power ON
	OFF	Pump is deactivated
	Green	Direction of rotation is correct
	Red	Direction of rotation is not correct
	OFF	No defect
	Red	Occurrence of one defect (out of dry-running detection)
	OFF	No defect
	Red	Dry-running detection
	OFF	Infrared communication is inactive
	Green	Infrared communication is enabled
	Blinking Green (2Hz)	Infrared communication is in progress

6.2 Relay operations

- X-Care is equipped with one dry contact relay in order to prevent any defect occurrence. To protect pump efficiently, it must be wired to pump power supply.
- Relay could be set as 'normally opened mode or 'normally closed' mode depending on the cabling.
- Every defect has got a maximum number of occurrences per day, starting from X-Care power on (see chapter 10 faults, causes and remedies). Once this maximum number is reached, relay stays blocked until any involved adjustment to keep it re-active again (see chapter 10 faults, causes and remedies).



7. Installation and electrical connection

Installation and electrical work in compliance with any local codes and by qualified personnel only!

WARNING! Bodily injury!
Existing regulations for the prevention of accidents must be observed.

WARNING! Electrical shock hazard!
Dangers caused by electrical energy must be excluded.

7.1 Commissioning

Unpack the pump and dispose of the packaging in an environmentally-responsible manner.

7.2 Installation

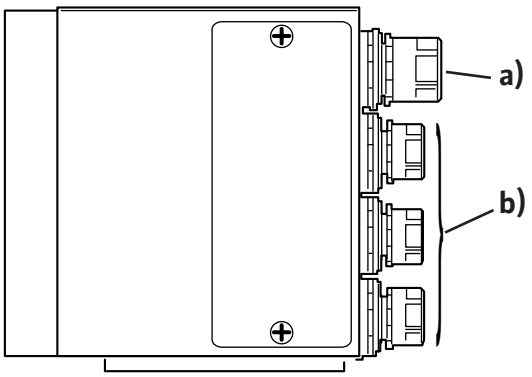
Take care to install the pump as described in its installation and operating instruction manual.

7.3 Electrical connection

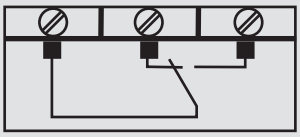
WARNING! Electrical shock hazard!
Dangers caused by electrical energy must be excluded.
• Electrical work by a qualified electrician only!
• All electrical connections must be performed after the electrical supply has been switched off for both, pump and X-Care, and secured against unauthorized switching.
• For safe installation and operation a proper grounding of the pump to the power supply's grounding terminals is required.

DANGER! Risk of injury or electrical shock hazard!
Electrical connections of pump and X-Care are totally independent: power supplies of both, pump and X-Care, must be turned off before any operations.
In particular, X-Care power on indicator [1] does not mean that pump is also switched off.

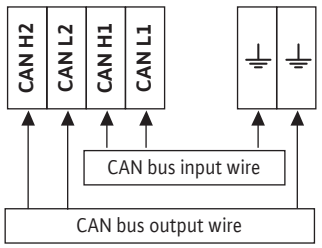
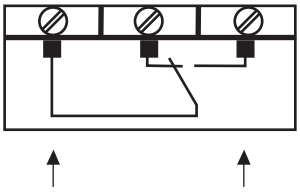
WARNING! Possible damages.
A wrong electrical connection could damage X-Care.
- Do not place the supply cables of the X-Care in contact with the pipe/ or pump housing or motor casing.
- X-Care should be grounded in compliance with local regulations.
- A thermomagnetic ground fault circuit-protector specified as circuit-breaker and installed close to X-Care must be used as an additional protection device. This circuit-protector must be put upstream in the building electrical installation and on both supply cables (L and N) of X-Care. This circuit-breaker must comply with EN60947-2 standard.
- Check that electrical network comply with X-Care requirements.
- Loosen the screws and remove X-Care cover.
- The power cable (phase + neutral + earth) must be fed through PG11 cable glands (a).
- Relay and CAN bus cables must be fed through PG9 cable glands (b).



- Non-allocated cable glands must remain sealed with plugs provided by the manufacturer.

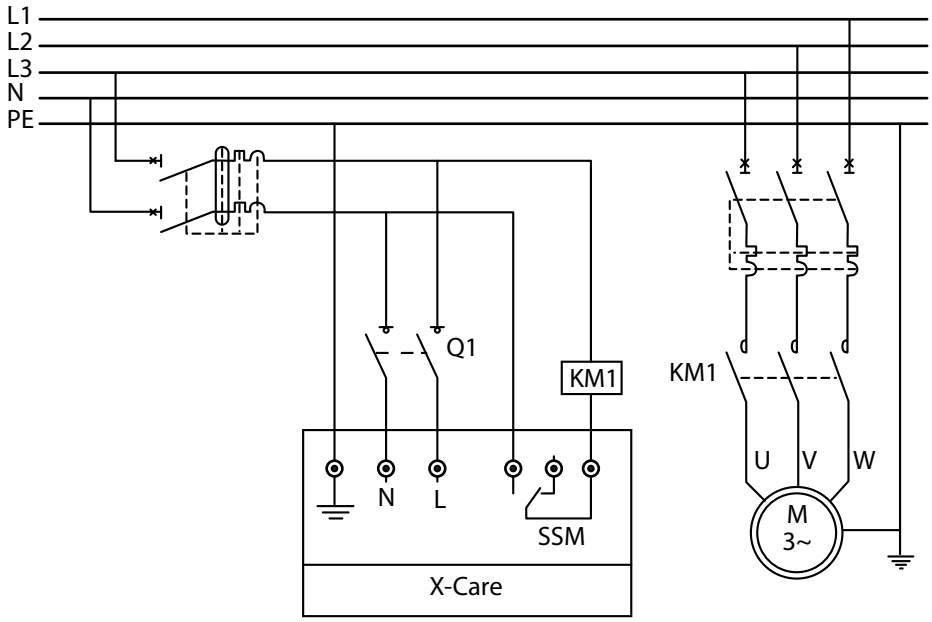
Designation	Allocation	Notes
⏚	Earth connection	
L, N	Mains connection voltage	Single phase network
SSM	Defect post relay 	After several occurrences (up to 6 depending on fault configuration) of one single defect, relay is disabled. Dry-contact features : minimum: 12 V DC, 10 mA maximum: 250 V AC, 1 A
⏚	Earth connection for CAN bus	
CAN L1	CAN Low	CAN bus input wire
CAN L2	CAN Low	CAN bus output wire
CAN H1	CAN High	CAN bus input wire
CAN H2	CAN High	CAN bus output wire

ⓘ NOTE: CAN terminals (L1, L2, H1, H2 and Earth) are compliant with "reinforced insulation" (as described in EN61010-1) compare to main (L, N) and SSM terminals (and vice-versa).

Connection to mains supply	Terminals
Connect the 3 wire cables on the power terminals and earth.	
Connection of input / output	**Terminals**
Connect CAN bus cables. Use 2-wires shielded cable (0.2 to 2.5 mm² stranded or rigid). Insulating diameter : 5 to 8 mm	
Defect post relay connection. Use 2-wires cable (0,2 to 2.5mm² stranded or rigid). Insulating diameter : 5 to 8mm	
CAN bus DIP switch settings	
CAN bus input cable only.	 Example: – One single product is connected to CAN bus . – Last device of a CAN network (bus termination).
CAN bus (input / output).	 Example: Every devices of a CAN network except termination.

– Screw X-Care cover.

– Example of one wiring diagram .



8. Commissioning

8.1 Configuration settings

- X-Care is configured in factory with a set of default value, ready for use.
- List of available parameters and default values.

Parameters	Range of value	Default value	Description
Type of power supply	Mains Variable speed inverter	Mains	Type of power supply used for dry-running detection optimization
Defect post when :	Setting		If yes, dry-contact relay is set when defect occurred and 'other defect' indicator is turned ON
• Low speed	Yes No	No	See "Maximum speed" parameter
• Direction of rotation	Yes No	Yes	
• X-Care temperature	Yes No	Yes	Defect occurred when X-Care internal temperature exceeds 70°C
• Over-pressure	Yes No	Yes	See "Maximum head" parameter
• Ambient temperature sensor disconnected	Yes No	Yes	
CAN bus address	OFF 1 to 64	OFF	When OFF, CAN bus is inactive
Maximum head	0 to P max. (16 or 25 bar)	P max. (16 or 25 bar)	Over-pressure threshold
Maximum speed	0 to V max	0	Low-speed threshold used to detect any occured abnormal speed level

8.2 X-Care settings

- In case of customization, it is recommended to set up X-Care before any pump starts.
- Turn X-Care on.
- X-Care settings is possible by using infrared communication or CAN bus facilities.

8.2.1 Infrared communication

- Requirements:
  PDA with one SDIO slot,
  IR-module (available as accesories),
  IR-module setup software (available from Wilo web site).
- When communication between PDA and X-Care is set, one click on button displays configuration settings menu.

8.2.2 CAN bus

- CAN interface is developped according to ISO 11898 standard and data transfer rate could reach up to Mbit/s.
- On this basis, profiles have been developed for several product ranges and allows a uniform use of products. CiA 450 profile defines properties for pumps. Wilo CAN bus interface is already compliant with future product profile based on DS CiA 301 communication protocol.

NOTE: Use of optocoupler is recommended when distance between 2 CAN devices exceeds 100 m.

- Requirements :
  CAN library (available from Wilo web site) ,
  Optocoupleur if necessary.
- See "Configuration" paragraph of CAN library documentation to access to the same parameters than those available through infrared communication.

8.3 System filling - Venting

CAUTION! Possible damage of the pump!
Never operate the pump dry.
The system must be filled before starting the pump.

- Take care to prepare pump according to its installation and operating instructions.
- Correct direction of rotation will be shown by "Direction of rotation" indicator [2] lit with GREEN light.

8.4 Starting the pump

- Take care to start pump according to its installation and operating instructions.

9. Maintenance

All servicing should be performed by an authorized service representative!

WARNING! Electrical shock hazard!
Dangers caused by electrical energy must be excluded.
All electrical work must be performed after power supplies have been switched off for both, pump and X-Care, and secured against unauthorized switching.

WARNING! Risk of scalding!
In case of high water temperatures and high system pressure close the isolating valves located in front of and behind the pump. First, allow pump to cool down.

- Helix pumps have been designed for low-maintenance.
- If needed, mechanical seal is easily replaceable thanks to its cartridge seal design. Turn both pump and X-Care off. Disconnect [E] connector for dismantling. After cartridge seal replacement, take care to connect [A] before pump start.
- Always keep the pump and X-Care perfectly clean.
- If required, clean X-Care only with a wet rag.

WARNING!
Do not use alcohol, solvent or acid solution to clean X-Care.

- Take care to maintain pump according to its installation and operating instructions.

10. Faults, causes and remedies

WARNING! Electrical shock hazard!
Dangers caused by electrical energy must be excluded.
All electrical work must be performed after power supplies of both, pump and X-Care, have been switched off and secured against unauthorized switching.

DANGER! Risk of injury or electrical shock hazard!
Electrical connections of pump and X-Care are totally independent: power supplies of both, pump and X-Care, must be turned off before any operations.
In particular, X-Care power on indicator [1] does not mean that pump is also turned off.

WARNING! Risk of scalding!
In case of high water temperatures and high system pressure close the isolating valves located in front of and behind the pump. First, allow pump to cool down.

- All defects mentioned below activate the “defect” indicator and the dry-contact relay but only if the “Defect post” parameter is set (see §8.1).

NOTE: Both "Defect" indicators show dry-contact relay status.

Defect no.	Indicator	Delay time before defect activation	Delay time before automatic restart (if any)	Maximum defect number per 24h	Defects / causes	Remedies
E01		60s	60s	6	Pump speed is too low	Fluid viscosity is too high
					Pump is faulty	Dismantle the pump, clean and change defective parts
					Defective pump shaft coupling	Check torque for coupling screws
					Wrong threshold for low speed parameter	Modify low speed parameter
E11		5s	60s	6	Air-binding or dry running of the pump	Prime the pump again (refer to installation and operating instructions manual provided with the pump) Check tightness of seals and gaskets on suction side
E16		60s	No restart	1	Wrong direction of rotation	Invert 2 phase wires for pump power supply
E30		60s	300s	6	Ambient temperature is too high	X-Care is specified not to work for an internal ambient temperature greater than +70°C Check fluid temperature that must not be above 120°C
E42		5s	No restart	1	Pressure sensor wire is cut (4-20mA)	Check sensor wire
E44		5s	No restart	1	Speed sensor wire is cut (4-20mA)	Check sensor wire
E47		5s	No restart	1	X-Care temperature sensor is damaged	Call customer services
E50					CAN bus failure	Check connections
E53					Duplicated CAN address	Check all the devices connected to the CAN bus have all different addresses
E54					CAN bus disconnected	Check CAN network
E60		15s	60s	6	Total pump head is too high for the pump	Use a pressure reducing valve at suction to limit maximum head
					Wrong threshold for maximum head parameter	Modify maximum head parameter
E71		< 1s	No restart	1	EEPROM failure	Call customer services

10.1 Defect acknowledgement

CAUTION! Possible damages!
Cancel defects only when their causes have been removed.

- Only authorized service representative are allowed to remove defects .
- Defect acknwoledgement could be done:

  – Either by infrared communication in Service/Error menu.

  – Or by CAN bus (20C0h parameter)

  – Or by switching X-Care off.

If the fault cannot be solved, please contact Wilo customer services.

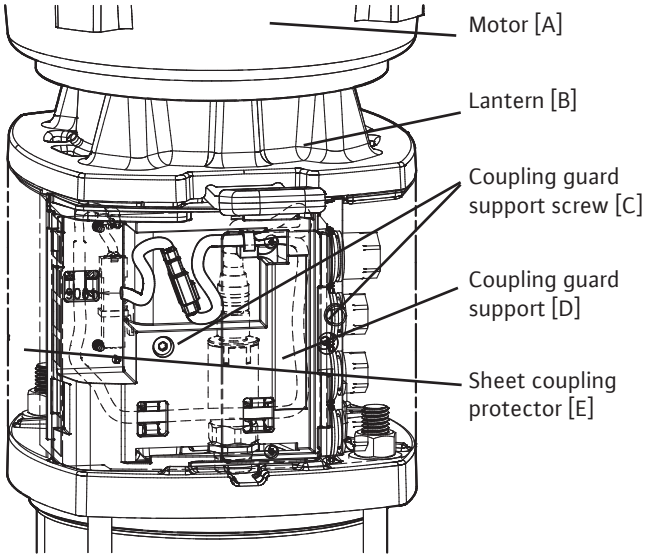
11. Spare parts

All spare parts must be ordered through Wilo Customer Services.
In order to avoid any mistakes, please specify the name plate data for orders.

Spare parts catalogue is available at: www.wilo.com.

12. Assembly instruction

12.1 X-Care service panel replacement



X-Care service panel disassembly

- Unscrew and remove the sheet coupling protector [E]
- Remove the panel screws [H]
- Slide the panel [I] and disconnect it to remove it.

X-Care service panel assembly

- Connect the panel [I] and slide it into the coupling guard support [D]
- Put the panel screws [H]
- Position and screw the sheet coupling protector [E].

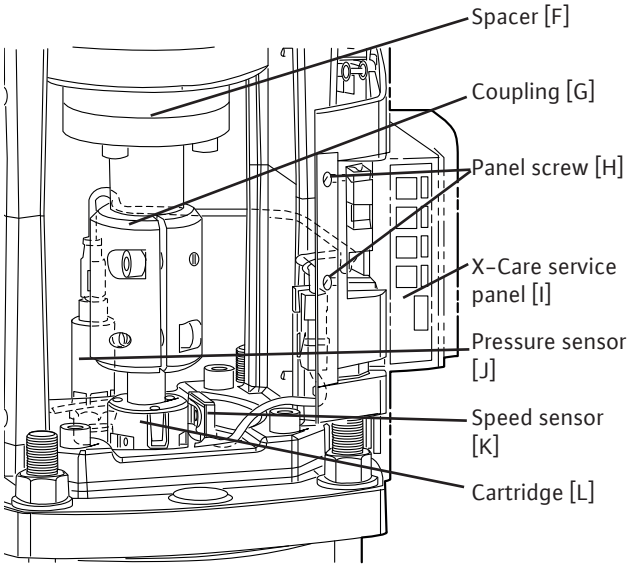
12.2 Pressure sensor replacement

Pressure sensor disassembly

- Remove the X-Care service panel (12.1.1)
- Remove the screws [C] and put off the coupling guard support [D]
- Disconnect and remove the pressure sensor [J] to remove it.

Pressure sensor assembly

- Screw the pressure sensor [J] and connect it
- Put in place the coupling guard support [D] and screw it [C]
- Assemble the X-Care service panel (12.1.2).



12.3 Cartridge replacement (FT flange motor: from 0.37 to 5.5 kW)

Cartridge disassembly

- Unscrew and remove the sheet coupling protector [E]
- Unscrew the coupling [G]
- Disconnect the speed sensor [K]
- Unscrew and remove the sub-assembly motor-lantern-coupling [B][A][G]
- Unscrew and put off the cartridge [L].

Cartridge assembly

- Position the cartridge [L] and screw it
- Put in place and screw the sub-assembly motor-lantern-coupling [B][A][G]
- Connect the speed sensor [K]
- Screw the coupling [G]
- Position and screw the sheet coupling protector [E].

12.4 Cartridge replacement (FF flange motor: from 7.5 kW)

Cartridge replacement

- Unscrew and remove the sheet coupling protector [E]
- Remove the screw and put off the half split coupling [G]
- Unscrew and remove the spacer [F]
- Disconnect the speed sensor [K]
- Unscrew and put off the cartridge [L].

Cartridge assembly

- Position the cartridge [L] and screw it
- Put in place and screw the spacer [F]
- Position and screw the half split coupling [G]
- Connect the speed sensor [K]
- Put in place and screw the sheet coupling protector [E].

D EG – Konformitätserklärung
GB EC – Declaration of conformity
F Déclaration de conformité CE

(gemäß 2006/42/EG Anhang II,1A und 2004/108/EG Anhang IV,2,
according 2006/42/EC annex II,1A and 2004/108/EC annex IV,2,
conforme 2006/42/CE appendice II,1A et 2004/108/CE l'annexe IV,2)

Hiermit erklären wir, dass die Pumpenbauarten der Baureihe:
Herewith, we declare that the pump types of the series:
Par le présent, nous déclarons que les types de pompes de la série :

HELIX V X-Care
(.../X/...)

(Die Seriennummer ist auf dem Typenschild des Produktes nach Punkten b) & c) von §1.7.4.2 und §1.7.3 des Anhanges I angegeben. / *The serial number is marked on the product site plate according to points b) & c) of §1.7.4.2 and §1.7.3 of the annex I of the Machinery directive 2006/42/EC. / Le numéro de série est inscrit sur la plaque signalétique du produit en accord avec les points b) & c) du §1.7.4.2 et du §1.7.3 de l'annexe I de la Directive Machines 2006/42/CE)*

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entsprechen:
in their delivered state comply with the following relevant provisions:
sont conformes aux dispositions suivantes dont ils relèvent:

EG-Maschinenrichtlinie **2006/42/EG**
EC-Machinery directive
Directive CE relative aux machines

Die Schutzziele der Niederspannungsrichtlinie 2006/95/EG werden gemäß Anhang I, Nr. 1.5.1 der 2006/42/EG Maschinenrichtlinie eingehalten. / *The protection objectives of the low-voltage directive 2006/95/EC are realized according annex I, No. 1.5.1 of the EC-Machinery directive 2006/42/EC. / Les objectifs de protection de sécurité de la directive basse-tension 2006/95/CE sont respectés conformément à l'annexe I, no1.5.1 de la directive CE relatives aux machines 2006/42/CE.*

Elektromagnetische Verträglichkeit - Richtlinie **2004/108/EG**
Electromagnetic compatibility - directive
Directive compatibilité électromagnétique

Richtlinie energieverbrauchsrelevanter Produkte **2009/125/EG**
Energy-related products - directive
Directive des produits liés à l'énergie

Die verwendeten 50Hz Induktionselektromotoren - Drehstrom, Käfigläufer, einstufig - entsprechen den Ökodesign - Anforderungen der **Verordnung 640/2009** und der **Verordnung 547/2012** für Wasserpumpen.
*This applies according to eco-design requirements of the **regulation 640/2009** to the versions with an induction electric motor, squirrel cage, three-phase, single speed, running at 50 Hz and of the **regulation 547/2012** for water pumps.*
*Qui s'applique suivant les exigences d'éco-conception du **règlement 640/2009** aux versions comportant un moteur électrique à induction à cage d'écureuil, triphasé, mono-vitesse, fonctionnant à 50 Hz et, du **règlement 547/2012** pour les pompes à eau,*

und entsprechender nationaler Gesetzgebung,
and with the relevant national legislation,
et aux législations nationales les transposant,

angewendete harmonisierte Normen, insbesondere:
as well as following relevant harmonized standards:
ainsi qu'aux normes européennes harmonisées suivantes :

EN 809+A1
EN ISO 12100
EN 60034-1
EN 60204-1
EN 61010-1
EN 61000-6-2: 2005
EN 61000-6-3 + A1: 2011

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen ist:
Authorized representative for the completion of the technical documentation:
Personne autorisée à constituer le dossier technique est :

Division Pumps and Systems
Quality Manager – PBU Multistage & Domestic
Pompes Salmson
80 Bd de l'Industrie - BP0527
F-53005 Laval Cedex

Dortmund, 03. December 2012

i. A. C. Brasse
Claudia Brasse
Group Quality

wilo

WILO SE
Nortkirchenstraße 100
44263 Dortmund
Germany

Document: 2109726.3
CE-AS-Sh. Nr. 4150417

NL
EG-verklaring van overeenstemming
Hiermede verklaren wij dat dit aggregaat in de geleverde uitvoering voldoet aan de volgende bepalingen:
EG-richtlijnen betreffende machines 2006/42/EG
De veiligheidsdoelstellingen van de laagspanningsrichtlijn worden overeenkomstig bijlage I, nr. 1.5.1 van de machinerichtlijn 2006/42/EG aangehouden.

Elektromagnetische compatibiliteit 2004/108/EG
Richtlijn voor energieverbruiksrelevante producten 2009/125/EG

De gebruikte 50 Hz inductie-elektromotoren – draaistroom, kooianker, ééntraps – conform de ecodesign-vereisten van de verordening 640/2009.

Conform de ecodesign-vereisten van de verordening 547/2012 voor waterpompen.

gebruikte geharmoniseerde normen, in het bijzonder: zie vorige pagina

IT
Dichiarazione di conformità CE
Con la presente si dichiara che i presenti prodotti sono conformi alle seguenti disposizioni e direttive rilevanti:
Direttiva macchine 2006/42/EG
Gli obiettivi di protezione della direttiva macchine vengono rispettati secondo allegato I, n. 1.5.1 dalla direttiva macchine 2006/42/CE.

Compatibilità elettromagnetica 2004/108/EG
Direttiva relativa ai prodotti connessi all'energia 2009/125/CE

I motori elettrici a induzione utilizzati da 50 Hz – corrente trifase, motore a gabbia di scoiattolo, monostadio – soddisfano i requisiti di progettazione ecocompatibile del regolamento 640/2009.
Ai sensi dei requisiti di progettazione ecocompatibile del regolamento 547/2012 per le pompe per acqua.
norme armonizzate applicate, in particolare: vedi pagina precedente

ES
Declaración de conformidad CE
Por la presente declaramos la conformidad del producto en su estado de suministro con las disposiciones pertinentes siguientes:
Directiva sobre máquinas 2006/42/EG
Se cumplen los objetivos en materia de seguridad establecidos en la Directiva de Baja tensión según lo especificado en el Anexo I, punto 1.5.1 de la Directiva de Máquinas 2006/42/CE.
Directiva sobre compatibilidad electromagnética 2004/108/EG
Directiva 2009/125/CE relativa a los productos relacionados con el consumo de energía

Los motores eléctricos de inducción de 50 Hz utilizados (de corriente trifásica, rotores en jaula deardilla, motores de una etapa) cumplen los requisitos relativos al ecodiseño establecidos en el Reglamento 640/2009.
De conformidad con los requisitos relativos al ecodiseño del Reglamento 547/2012 para bombas hidráulicas.
normas armonizadas adoptadas, especialmente: véase página anterior

PT
Declaração de Conformidade CE
Pela presente, declaramos que esta unidade no seu estado original, está conforme os seguintes requisitos:
Directivas CEE relativas a máquinas 2006/42/EG
Os objectivos de protecção da directiva de baixa tensão são cumpridos de acordo com o anexo I, nº 1.5.1 da directiva de máquinas 2006/42/CE.
Compatibilidade electromagnética 2004/108/EG
Directiva relativa à criação de um quadro para definir os requisitos de concepção ecológica dos produtos relacionados com o consumo de energia 2009/125/CE
Os motores eléctricos de indução de 50 Hz utilizados – corrente trifásica, com rotor em curto-circuito, monocelular – cumprem os requisitos de concepção ecológica do Regulamento 640/2009.
Cumprem os requisitos de concepção ecológica do Regulamento 547/2012 para as bombas de água.
normas harmonizadas aplicadas, especialmente: ver página anterior

SV
CE- försäkran
Härmed förklarar vi att denna maskin i levererat utförande motsvarar följande tillämpliga bestämmelser:
EG–Maskindirektiv 2006/42/EG
Produkten uppfyller säkerhetsmålen i lågspänningsdirektivet enligt
bilaga I, nr 1.5.1 i maskindirektiv 2006/42/EG.
EG–Elektromagnetisk kompatibilitet – riktlinje 2004/108/EG
Direktivet om energirelaterade produkter 2009/125/EG

De använda elektriska induktionsmotorerna på 50 Hz – trefas, kortslutningsmotor, enstegs – motsvarar kraven på ekodesign för elektriska motorer i förordning 640/2009.

Motsvarande ekodesignkraven i förordning 547/2012 för vattenpumpar.

tillämpade harmoniserade normer, i synnerhet: se föregående sida

NO
EU-Overensstemmelseserklæring
Vi erklærer hermed at denne enheten i utførelse som levert er i overensstemmelse med følgende relevante bestemmelser:
EG–Maskindirektiv 2006/42/EG
Lavspenningsdirektivets vernemål overholdes i samsvar med
vedlegg I, nr. 1.5.1 i maskindirektivet 2006/42/EF.
EG–EMV–Elektromagnetisk kompatibilitet 2004/108/EG
Direktiv energirelaterte produkter 2009/125/EF

De 50 Hz induksjonsmotorene som finner anvendelse – trefasevekselstrøms kortslutningsmotor, ettrinns – samsvarer med kravene til økodesign i forordning 640/2009.
I samsvar med kravene til økodesign i forordning 547/2012 for vannpumper.

anvendte harmoniserte standarder, særlig: se forrige side

FI
CE-standardinmukaisuusseloste
Ilmoitamme täten, että tämä laite vastaa seuraavia asiaankuuluvia määräyksiä:

EU–konedirektiivit: 2006/42/EG
Pienjännitedirektiivin suojatavoitteita noudatetaan
konedirektiivin 2006/42/EY liitteen I, nro 1.5.1 mukaisesti.
Sähkömagneettinen soveltuvuus 2004/108/EG
Energiaan liittyviä tuotteita koskeva direktiivi 2009/125/EY
Käytettävät 50 Hz:n induktio-sähkömoottorit (vaihevirta- ja oikosulkumoottori, yksivaiheinen moottori) vastaavat asetuksen 640/2009 ekologista suunnittelua koskevia vaatimuksia.
Asetuksessa 547/2012 esitettyjä vesipumppujen ekologista suunnittelua koskevia vaatimuksia vastaava.
käytetyt yhteensovitetut standardit, erityisesti: katso edellinen sivu.

DA
EF-overensstemmelseserklæring
Vi erklærer hermed, at denne enhed ved levering overholder følgende relevante bestemmelser:
EU–maskindirektiver 2006/42/EG
Lavspændingsdirektivets mål om beskyttelse overholdes i henhold til bilag I, nr. 1.5.1 i maskindirektivet 2006/42/EF.
Elektromagnetisk kompatibilitet: 2004/108/EG
Direktiv 2009/125/EF om energirelaterede produkter
De anvendte 50 Hz induktionselektromotorer - trefasestrøm, kortslutningsmotor, et-trins - opfylder kravene til miljøvenligt design i forordning 640/2009.

I overensstemmelse med kravene til miljøvenligt design i forordning 547/2012 for vandpumper.
anvendte harmoniserede standarder, særligt: se forrige side

HU
EK-megfelelőségi nyilatkozat
Ezennel kijelentjük, hogy az berendezés megfelel az alábbi irányelveknek:

Gépek irányelv: 2006/42/EK
A kisfeszültségű irányelv védelmi előírásait a 2006/42/EK gépekre vonatkozó irányelv I. függelékének 1.5.1. sz. pontja szerint teljesíti.
Elektromágneses összeférhetőség irányelv: 2004/108/EK
Energiával kapcsolatos termékekről szóló irányelv: 2009/125/EK
A használt 50 Hz-es indukciós villanymotorok – háromfázisú, kalickás forgórész, egyfokozatú – megfelelnek a 640/2009 rendelet környezetbarát tervezésre vonatkozó követelményeinek.
A vízszivattyúkról szóló 547/2012 rendelet környezetbarát tervezésre vonatkozó követelményeinek megfelelően.
alkalmazott harmonizált szabványoknak, különösen: lásd az előző oldalt

CS
Prohlášení o shodě ES
Prohlašujeme tímto, že tento agregát v dodaném provedení odpovídá následujícím příslušným ustanovením:
Směrnice ES pro strojní zařízení 2006/42/ES
Cíle týkající se bezpečnosti stanovené ve směrnici o elektrických zařízeních nízkého napětí jsou dodrženy podle přílohy I, č. 1.5.1 směrnice o strojních zařízeních 2006/42/ES.

Směrnice o elektromagnetické kompatibilitě 2004/108/ES
Směrnice pro výrobky spojené se spotřebou energie 2009/125/ES

Použité 50Hz třífázové indukční motory, s klecovým rotorem, jednostupňové – vyhovují požadavkům na ekodesign dle nařízení 640/2009.
Vyhovuje požadavkům na ekodesign dle nařízení 547/2012 pro vodní čerpadla.

použité harmonizační normy, zejména: viz předchozí strana

PL
Deklaracja Zgodności WE
Niniejszym deklarujemy z pełną odpowiedzialnością, że dostarczony wyrób jest zgodny z następującymi dokumentami:
dyrektywą maszynową WE 2006/42/WE
Przestrzegane są cele ochrony dyrektywy niskonapięciowej zgodnie z załącznikiem I, nr 1.5.1 dyrektywy maszynowej 2006/42/WE.

dyrektywą dot. kompatybilności elektromagnetycznej 2004/108/WE
Dyrektywa w sprawie ekoprojektu dla produktów związanych z energią 2009/125/WE.

Stosowane elektryczne silniki indukcyjne 50 Hz – trójfazowe, wirniki klatkowe, jednostopniowe – spełniają wymogi rozporządzenia 640/2009 dotyczące ekoprojektu.
Spełniają wymogi rozporządzenia 547/2012 dotyczącego ekoprojektu dla pomp wodnych.

stosowanymi normami zharmonizowanymi, a w szczególności: patrz poprzednia strona

RU
Декларация о соответствии Европейским нормам
Настоящим документом заявляем, что данный агрегат в его объеме поставки соответствует следующим нормативным документам:
Директивы ЕС в отношении машин 2006/42/EG
Требования по безопасности, изложенные в директиве по низковольтному напряжению, соблюдаются согласно приложению I, № 1.5.1 директивы в отношении машин 2006/42/EG.
Электромагнитная устойчивость 2004/108/EG
Директива о продукции, связанной с энергопотреблением 2009/125/EC

Используемые асинхронные электродвигатели 50 Гц – трехфазного тока, короткозамкнутые, одноступенчатые – соответствуют требованиям к экодизайну
Соответствует требованиям к экодизайну предписания 547/2012 для водяных насосов.
Используемые согласованные стандарты и нормы, в частности : см. предыдущую страницу

EL
Δήλωση συμμόρφωσης της ΕΕ
Δηλώνουμε ότι το προϊόν αυτό σ' αυτή την κατάσταση παράδοσης ικανοποιεί τις ακόλουθες διατάξεις :
Οδηγίες ΕΚ για μηχανήματα 2006/42/ΕΚ
Οι απαιτήσεις προστασίας της οδηγίας χαμηλής τάσης τηρούνται σύμφωνα με το παράρτημα Ι, αρ. 1.5.1 της οδηγίας σχετικά με τα μηχανήματα 2006/42/ΕΚ.
Ηλεκτρομαγνητική συμβατότητα ΕΚ–2004/108/ΕΚ
Ευρωπαϊκή οδηγία για συνδεόμενα με την ενέργεια προϊόντα 2009/125/ΕΚ

Οι χρησιμοποιούμενοι επαγωγικοί ηλεκτροκινητήρες 50 Hz – τριφασικοί, δρομέας κλωβού, μονοβάθμιοι – ανταποκρίνονται στις απαιτήσεις οικολογικού σχεδιασμού του κανονισμού 640/2009.
Σύμφωνα με τις απαιτήσεις οικολογικού σχεδιασμού του κανονισμού 547/2012 για υδραντλιές.
Εναρμονισμένα χρησιμοποιούμενα πρότυπα, ιδιαίτερα: Βλέπε προηγούμενη σελίδα

TR
CE Uygunluk Teyid Belgesi
Bu cihazın teslim edildiği şekliyle aşağıdaki standartlara uygun olduğunu teyid ederiz:

AB-Makina Standartları 2006/42/EG
Alçak gerilim yönergesinin koruma hedefleri, 2006/42/AT makine yönergesi Ek I, no. 1.5.1'e uygundur.
Elektromanyetik Uyumluluk 2004/108/EG
Enerji ile ilgili ürünlerin çevreye duyarlı tasarımına ilişkin yönetmelik 2009/125/AT

Kullanılan 50 Hz indüksiyon elektromotorları – trifaze akım, sincap kafes motor, tek kademeli – 640/2009 Düzenlemesinde ekolojik tasarımla ilgili gerekliliklere uygundur.

Su pompaları ile ilgili 547/2012 Düzenlemesinde ekolojik tasarıma ilişkin gerekliliklere uygun.
kısmen kullanılan standartlar için: bkz. bir önceki sayfa

RO
EC–Declarație de conformitate
Prin prezenta declarăm că acest produs aşa cum este livrat, corespunde cu următoarele prevederi aplicabile:
Directiva CE pentru maşini 2006/42/EG
Sunt respectate obiectivele de protecţie din directiva privind joasa tensiune conform Anexei I, Nr. 1.5.1 din directiva privind maşinile 2006/42/CE.
Compatibilitatea electromagnetică – directiva 2004/108/EG
Directivă privind produsele cu impact energetic 2009/125/CE

Electromotoarele cu inducţie, de 50 Hz, utilizate – curent alternativ, motor în scurtcircuit, cu o treaptă – sunt în conformitate cu prevederile ecologici cuprinşi în Ordonanţa 640/2009.
În conformitate cu parametrii ecologici cuprinşi în Ordonanţa 547/2012 pentru pompe de apă.
standarde armonizate aplicate, îndeosebi: vezi pagina precedentă

ET
EÜ vastavusdeklaratsioon
Käesolevaga tõendame, et see toode vastab järgmistele asjakohastele direktiividele:
Masinadirektiiv 2006/42/EÜ
Madalpingedirektiivi kaitse-eesmärgid on täidetud vastavalt masinate direktiivi 2006/42/EÜ I lisa punktile 1.5.1.

Elektromagnetilise ühilduvuse direktiiv 2004/108/EÜ
Energiamõjuga toodete direktiiv 2009/125/EÜ
Kasutatud 50 Hz vaheldUvvoolu elektrimootorid (vahelduvvool, lühisrootor, üheastmeline) vastavad määruses 640/2009 sätestatud ökodisaini nõuetele.

Kooskõlas veepumpade määruses 547/2012 sätestatud ökodisaini nõuega.

kohaldatud harmoneeritud standardid, eriti: vt eelmist lk

LV
EC - atbilstības deklarācija
Ar šo mēs apliecinām, ka šis izstrādājums atbilst sekojošiem noteikumiem:
Mašīnu direktīva 2006/42/EK
Zemsprieguma direktīvas drošības mērķi tiek ievēroti atbilstoši Mašīnu direktīvas 2006/42/EK
Pielikumam I, Nr. 1.5.1.
Elektromagnētiskās savietojamības direktīva 2004/108/EK
Direktīva 2009/125/EK par ar enerģiju saistītiem produktiem
Izmantotie 50 Hz indukcijas elektromotori – maiņstrāva, īsslēguma rotora motors, vienpakāpes – atbilst Regulas Nr. 640/2009 ekodizaina prasībām.

Atbilstoši Regulas Nr. 547/2012 ekodizaina prasībām ūdenssūkņiem.

piemēroti harmonizēti standarti, tai skaitā: skatīt iepriekšējo lappusi

LT
EB atitikties deklaracija
Šiuo pažymima, kad šis gaminys atitinka šias normas ir direktyvas:
Mašinų direktyvą 2006/42/EB
Laikomasi Žemos įtampos direktyvos keliamų saugos reikalavimų pagal Mašinų direktyvos 2006/42/EB I priedo 1.5.1 punktą.

Elektromagnetinio suderinamumo direktyvą 2004/108/EB
Su energija susijusių produktų direktyva 2009/125/EB
Naudojami 50 Hz indukciniai elektriniai varikliai – trifazės įtampos, su narveliniu rotoriumi, vienos pakopos – atitinka ekologinio projektavimo reikalavimus pagal Reglamentą 640/2009.
Atitinka ekologinio projektavimo reikalavimus pagal Reglamentą 547/2012 dėl vandens siurblių.
pritaikytus vieningus standartus, o būtent: žr. ankstesniame puslapyje

SK
ES vyhlásenie o zhode
Týmto vyhlasujeme, že konštrukcie tejto konštrukčnej série v dodanom vyhotovení vyhovujú nasledujúcim príslušným ustanoveniam:
Stroje - smernica 2006/42/ES
Bezpečnostné ciele smernice o nízkom napätí sú dodržiavané v zmysle prílohy I, č. 1.5.1 smernice o strojových zariadeniach 2006/42/ES.
Elektromagnetická zhoda - smernica 2004/108/ES
Smernica 2009/125/ES o energeticky významných výrobkoch

Použité 50 Hz indukčné elektromotory – jednostupňové, na trojfázový striedavý prúd, s rotormi nakrátko – zodpovedajú požiadavkám na ekodizajn uvedeným v nariadení 640/2009.
V súlade s požiadavkami na ekodizajn uvedenými v nariadení 547/2012 pre vodné čerpadlá.

používané harmonizované normy, najmä: pozri predchádzajúcu stranu

SL
ES – izjava o skladnosti
Izjavljamo, da dobavljene vrste izvedbe te serije ustrezajo sledečim zadevnim določilom:

Direktiva o strojih 2006/42/ES
Cilji Direktive o nizkonapetostni opremi so v skladu s
prilogo I, št. 1.5.1 Direktive o strojih 2006/42/ES doseženi.
Direktiva o elektromagnetni združljivosti 2004/108/ES
Direktiva 2009/125/ES za okoljsko primerno zasnovo izdelkov, povezanih z energijo

Uporabljeni 50 Hz indukcijski elektromotorji – trifazni tok, kletkasti rotor, enostopenjski – izpolnjujejo zahteve za okoljsko primerno zasnovo iz Uredbe 640/2009.

izpolnjujejo zahteve za okoljsko primerno zasnovo iz Uredbe 547/2012 za vodne črpalke.

uporabljeni harmonizirani standardi, predvsem: glejte prejšnjo stran

BG
ЕО-Декларация за съответствие
Декларираме, че продуктът отговаря на следните изисквания:

Машинна директива 2006/42/ЕО
Целите за защита на разпоредбата за ниско напрежение са съставени съгласно Приложение I, № 1.5.1 от Директивата за машини 2006/42/ЕС.
Електромагнитна съвместимост – директива 2004/108/ЕО
Директива за продуктите, свързани с енергопотреблението 2009/125/ЕО

Използваните индукционни електродвигатели 50 Hz – трифазен ток, търкалящи се лагери, едностъпални – отговарят на изискванията за екодизайн на Регламент 640/2009.
Съгласно изискванията за екодизайн на Регламент 547/2012 за водни помпи.

Хармонизирани стандарти: вж. предната страница

MT
Dikjarazzjoni ta' konformità KE
B'dan il-mezz, niddikjaraw li l-prodotti tas-serje jissodisfaw id-dispożizzjonijiet relevanti li ġejjin:
Makkinarju - Direttiva 2006/42/KE
L-objettivi tas-sigurta tad-Direttiva dwar il-Vultaġġ Baxx huma konformi mal-Anness I, Nru 1.5.1 tad-Direttiva dwar il-Makkinarju 2006/42/KE.
Kompatibbiltà elettromanjetika - Direttiva 2004/108/KE
Linja Gwida 2009/125/KE dwar prodotti relatati mal-użu tal-enerġija
Il-muturi elettrici b'induzzjoni ta' 50 Hz użati- tliet fażijiet, squirrel-cage, singola - jissodisfaw ir-rekwiżiti tal-ekodisinn tar-Regolament 640/2009.
b'mod partikolari: ara l-paġna ta' qabel

HR
EZ izjava o sukladnosti
Ovim izjavljujemo da vrste konstrukcije serije u isporučenoj izvedbi odgovaraju sljedećim važećim propisima:
EZ smjernica o strojevima 2006/42/EZ
Ciljevi zaštite smjernice o niskom naponu ispunjeni su sukladno prilogu I, br. 1.5.1 smjernice o strojevima 2006/42/EZ.
Elektromagnetna kompatibilnost – smjernica 2004/108/EZ
Smjernica za proizvode relevantne u pogledu potrošnje energije 2009/125/EZ
Korišteni 50 Hz-ni indukcijski elektromotori – trofazni, s kratko spojenim rotorom, jednostupanjski – odgovaraju zahtjevima za ekološki dizajn iz uredbe 640/2009.
primijenjene harmonizirane norme, posebno: vidjeti prethodnu stranicu

SR
EZ izjava o usklađenosti
Ovim izjavljujemo da vrste konstrukcije serije u isporučenoj verziji odgovaraju sledećim važećim propisima:
EZ direktiva za mašine 2006/42/EZ
Ciljevi zaštite direktive za niski napon ispunjeni su u skladu sa prilogom I, br. 1.5.1 direktive za mašine 2006/42/EZ.
Elektromagnetna kompatibilnost - direktiva 2004/108/EZ
Direktiva za proizvode relevantne u pogledu potrošnje energije 2009/125/EZ
Korišćeni 50 Hz-ni indukcioni elektromotori – trofazni, s kratkospojenim rotorom, jednostepeni – odgovaraju zahtevima za ekološki dizajn iz uredbe 640/2009.
primenjeni harmonizovani standardi, a posebno: vidi prethodnu stranu

WILO SE
Nortkirchenstraße 100
44263 Dortmund
Germany

Wilo – International (Subsidiaries)

Argentina
WILO SALMSON
Argentina S.A.
C1295ABI Ciudad
Autónoma de Buenos Aires
T+ 54 11 4361 5929
info@salmson.com.ar

Australia
WILO Australia Pty Limited
Murrarrie, Queensland,
4172
T +61 7 3907 6900
chris.dayton@wilo.com.au

Austria
WILO Pumpen
Österreich GmbH
2351 Wiener Neudorf
T +43 507 507-0
office@wilo.at

Azerbaijan
WILO Caspian LLC
1014 Baku
T +994 12 5962372
info@wilo.az

Belarus
WILO Bel OOO
220035 Minsk
T +375 17 2535363
wilo@wilo.by

Belgium
WILO SA/NV
1083 Ganshoren
T +32 2 4823333
info@wilo.be

Bulgaria
WILO Bulgaria Ltd.
1125 Sofia
T +359 2 9701970
info@wilo.bg

Brazil
WILO Brasil Ltda
Jundiaí – São Paulo – Brasil
ZIP Code: 13.213-105
T +55 11 2923 (WILO)
9456
wilo@wilo-brasil.com.br

Canada
WILO Canada Inc.
Calgary, Alberta T2A 5L4
T +1 403 2769456
bill.lowe@wilo-na.com

China
WILO China Ltd.
101300 Beijing
T +86 10 58041888
wilobj@wilo.com.cn

Croatia
Wilo Hrvatska d.o.o.
10430 Samobor
T +38 51 3430914
wilo-hrvatska@wilo.hr

Czech Republic
WILO CS, s.r.o.
25101 Cestlice
T +420 234 098711
info@wilo.cz

Denmark
WILO Danmark A/S
2690 Karlslunde
T +45 70 253312
wilo@wilo.dk

Estonia
WILO Eesti OÜ
12618 Tallinn
T +372 6 509780
info@wilo.ee

Finland
WILO Finland OY
02330 Espoo
T +358 207401540
wilo@wilo.fi

France
WILO S.A.S.
78390 Bois d'Arcy
T +33 1 30050930
info@wilo.fr

Great Britain
WILO (U.K.) Ltd.
Burton Upon Trent
DE14 2WJ
T +44 1283 523000
sales@wilo.co.uk

Greece
WILO Hellas AG
14569 Anixi (Attika)
T +302 10 6248300
wilo.info@wilo.gr

Hungary
WILO Magyarország Kft
2045 Törökbálint
(Budapest)
T +36 23 889500
wilo@wilo.hu

India
WILO India Mather and
Platt Pumps Ltd.
Pune 411019
T +91 20 27442100
services@matherplatt.com

Indonesia
WILO Pumps Indonesia
Jakarta Selatan 12140
T +62 21 7247676
citrawilo@cbn.net.id

Ireland
WILO Ireland
Limerick
T +353 61 227566
sales@wilo.ie

Italy
WILO Italia s.r.l.
20068 Peschiera
Borromeo (Milano)
T +39 25538351
wilo.italia@wilo.it

Kazakhstan
WILO Central Asia
050002 Almaty
T +7 727 2785961
info@wilo.kz

Korea
WILO Pumps Ltd.
618-220 Gangseo, Busan
T +82 51 950 8000
wilo@wilo.co.kr

Latvia
WILO Baltic SIA
1019 Riga
T +371 6714-5229
info@wilo.lv

Lebanon
WILO LEBANON SARL
Jdeideh 1202 2030
Lebanon
T +961 1 888910
info@wilo.com.lb

Lithuania
WILO Lietuva UAB
03202 Vilnius
T +370 5 2136495
mail@wilo.lt

Morocco
WILO MAROC SARL
20600 CASABLANCA
T + 212 (0) 5 22 66 09
24/28
contact@wilo.ma

The Netherlands
WILO Nederland b.v.
1551 NA Westzaan
T +31 88 9456 000
info@wilo.nl

Norway
WILO Norge AS
0975 Oslo
T +47 22 804570
wilo@wilo.no

Poland
WILO Polska Sp. z.o.o.
05-506 Lesznowola
T +48 22 7026161
wilo@wilo.pl

Portugal
Bombas Wilo-Salmson
Portugal Lda.
4050-040 Porto
T +351 22 2080350
bombas@wilo.pt

Romania
WILO Romania s.r.l.
077040 Com. Chiajna
Jud. Ilfov
T +40 21 3170164
wilo@wilo.ro

Russia
WILO Rus ooo
123592 Moscow
T +7 495 7810690
wilo@wilo.ru

Saudi Arabia
WILO ME - Riyadh
Riyadh 11465
T +966 1 4624430
wshoula@wataniaind.com

Serbia and Montenegro
WILO Beograd d.o.o.
11000 Beograd
T +381 11 2851278
office@wilo.rs

Slovakia
WILO CS s.r.o., org. Zložka
83106 Bratislava
T +421 2 33014511
info@wilo.sk

Slovenia
WILO Adriatic d.o.o.
1000 Ljubljana
T +386 1 5838130
wilo.adriatic@wilo.si

South Africa
Salmson South Africa
1610 Edenvale
T +27 11 6082780
errol.cornelius@
salmson.co.za

Spain
WILO Ibérica S.A.
28806 Alcalá de Henares
(Madrid)
T +34 91 8797100
wilo.iberica@wilo.es

Sweden
WILO Sverige AB
35246 Växjö
T +46 470 727600
wilo@wilo.se

Switzerland
EMB Pumpen AG
4310 Rheinfelden
T +41 61 83680-20
info@emb-pumpen.ch

Taiwan
WILO Taiwan Company Ltd.
Sanchong Dist., New Taipei
City 24159
T +886 2 2999 8676
nelson.wu@wilo.com.tw

Turkey
WILO Pompa Sistemleri
San. ve Tic. A.Ş.
34956 İstanbul
T +90 216 2509400
wilo@wilo.com.tr

Ukraina
WILO Ukraina t.o.w.
01033 Kiew
T +38 044 2011870
wilo@wilo.ua

United Arab Emirates
WILO Middle East FZE
Jebel Ali Free Zone–South
PO Box 262720 Dubai
T +971 4 880 91 77
info@wilo.ae

USA
WILO USA LLC
Rosemont, IL 60018
T +1 866 945 6872
info@wilo-usa.com

Vietnam
WILO Vietnam Co Ltd.
Ho Chi Minh City, Vietnam
T +84 8 38109975
nkminh@wilo.vn

wilo

Pioneering for You

WILO SE
Nortkirchenstraße 100
D-44263 Dortmund
Germany
T +49(0)231 4102-0
F +49(0)231 4102-7363
wilo@wilo.com
www.wilo.com