

## Wilo-Yonos PICO-STG



**de** Einbau- und Betriebsanleitung  
**en** Installation and operating instructions  
**fr** Notice de montage et de mise en service  
**es** Instrucciones de instalación y funcionamiento  
**it** Istruzioni di montaggio, uso e manutenzione

**tr** Montaj ve kullanma kılavuzu  
**el** Οδηγίες εγκατάστασης και λειτουργίας  
**pl** Instrukcja montażu i obsługi  
**ru** Инструкция по монтажу и эксплуатации

Fig. 1:

Yonos PICO-STG \*\*/1-7.5

Yonos PICO-STG \*\*/1-13



Fig. 2:

Yonos PICO-STG \*\*/1-7.5

Yonos PICO-STG \*\*/1-13

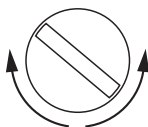


Fig. 3a:

Fig. 3b:

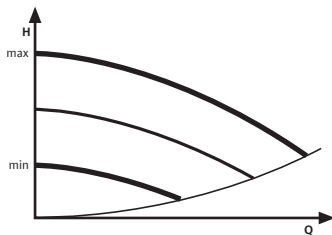
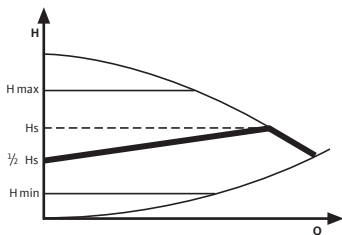


Fig. 3c:

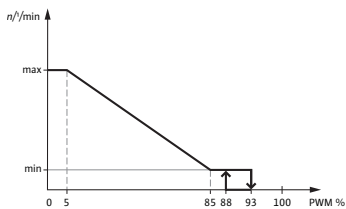


Fig. 3d:

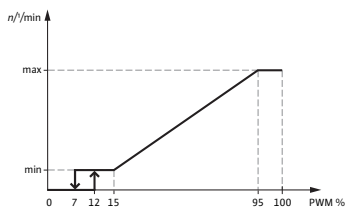


Fig. 4:

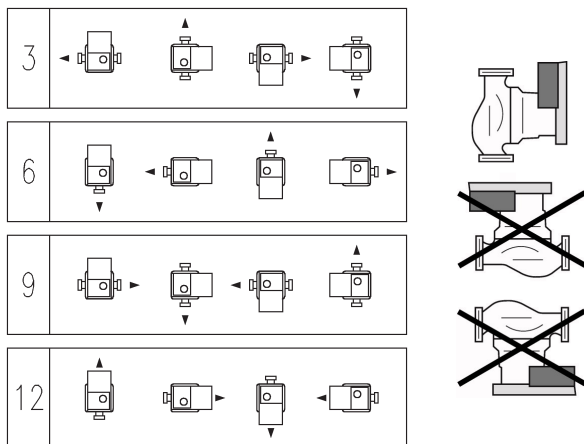


Fig. 5a:

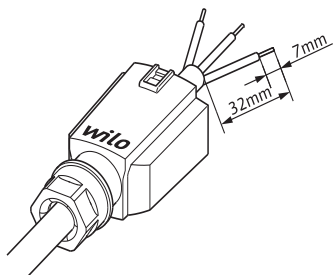


Fig. 5b:

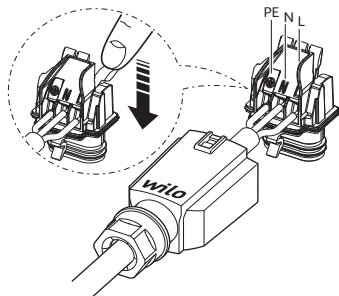


Fig. 5c:

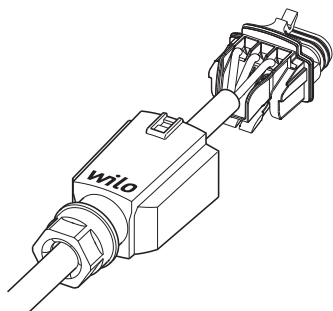


Fig. 5d:

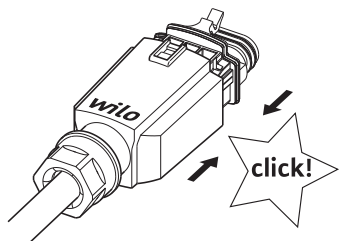


Fig. 5e:

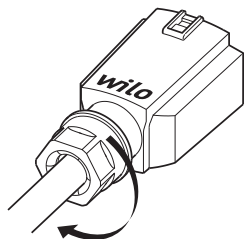


Fig. 5f:

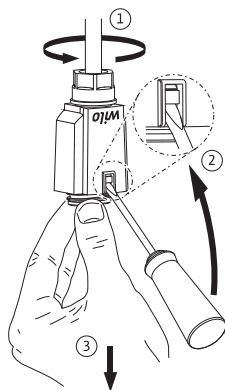
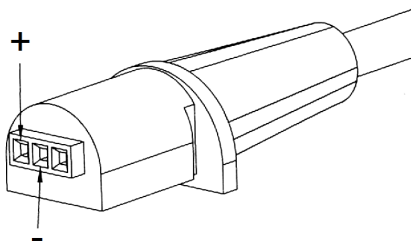


Fig. 6:



## 1 General

### About this document

The language of the original operating instructions is German. 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 regulations and 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 or the declarations made in the installation and operating instructions on product/personnel safety are not observed, 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 Symbols and signal words 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,
  - Rating 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 due to electrical, mechanical and bacteriological factors
- 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.
- Danger from electrical current must be eliminated. Local directives or general directives [e.g. IEC, VDE etc.] and instructions from local energy supply companies must be adhered to.
- Faults of electronic devices due to electromagnetic fields. Electromagnetic fields are created during the operation of pumps with frequency converter. Interference of electronic devices may be the result. The result may be a device malfunction, which can result in damage to the health or even death, e.g. of persons carrying implanted active or passive medical devices.
- Therefore, during operation the presence of any persons e.g. with cardiac pacemakers in the vicinity of the unit/pump should be prohibited. With magnetic or electronic data media, the loss of data is possible.

**WARNING! Danger due to strong magnetic field!**

Inside the machine there is always a strong magnetic field that can cause injury and damage to property in the event of incorrect dismantling.

- It is only permitted to have the rotor removed from the motor housing by qualified personnel!
- There is a crushing hazard! When pulling the rotor out of the motor, it may be suddenly pulled back into its initial position by the strong magnetic field.
- If the unit consisting of impeller, bearing shield and rotor is pulled out of the motor, persons with medical aids, such as cardiac pacemakers, insulin pumps, hearing aids, implants or similar are at risk. Death, severe injury and damage to property may be the result. For such persons, a professional medical assessment is always necessary.
- Electronic devices may be impaired functionally or damaged by the strong magnetic field of the rotor.
- If the rotor is outside the motor, magnetic objects may be attracted very suddenly. This can result in injury and damage to property.

In assembled condition, the rotor's magnetic field is guided in the motor's iron core. There is therefore no harmful magnetic field outside the machine.

**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 may only be carried out when the system is 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**

Immediately check the product for any transit damage on arrival.



**CAUTION! Risk of property damage!**

**Incorrect transport and interim storage can cause damage to the product.**

**Protect the pump against moisture, frost, and mechanical damage during transport and interim storage.**

### **Transport conditions**

The product must not be exposed to temperatures outside the range between  $-40\text{ }^{\circ}\text{C}$  and  $+85\text{ }^{\circ}\text{C}$ .

### Storage conditions

The product must not be exposed to temperatures outside the range between 0°C and +40°C. The storage time can be up to 2 years.

## 4 Intended use

Pumps in the Wilo-Yonos PICO-STG series may only be used for pumping fluids in the primary circuits of solar and geothermal systems.

Permitted fluids are water/glycol mixtures in a 1:1 mixing ratio. If glycol is added, the delivery data of the pump must be corrected according to the higher viscosity, depending on the mixing ratio percentage.

The intended use includes complying with these instructions. Any other use is regarded as improper use.

## 5 Product information

### 5.1 Type key

|   |   |
|---|---|
| <b>Example:</b>                         |   |
| <b>Wilo-Yonos PICO-STG 25/1-7.5-180</b> |   |
| Yonos PICO                              | High-efficiency pump  |
| -STG                                    | for solar thermal and geothermal applications   |
| 25/                                     | Screwed connection: 15 (Rp ½), 25 (Rp 1), 30 (Rp 1¼)  |
| 1-7.5                                   | 1 = Minimum delivery head in m (adjustable down to 0.5 m)<br>7.5 = maximum delivery head in m at Q = 0 m³/h |
| 180                                     | Port-to-port length: 130 mm or 180 mm   |

| <b>5.2 Technical data</b>   |  |
|---|--|
| Approved fluids<br>(other fluids on request)  | Water-glycol mixtures (max. 1:1 after 20% admixture the pumping data is to be checked)                           |
| <b>Power</b>  |  |
| Max. delivery head (Hmax)   | 13.0 m   |
| Max. volume flow (Qmax)   | 4.5 m <sup>3</sup> /h  |
| <b>Approved field of application</b>  |  |
| Temperature range for use in solar and geothermal systems at max. ambient temperature. See "TF" specification on the rating plate | Ambience 52 °C = TF 0 to 110 °C<br>from 57 °C = 0 to 95 °C<br>from 60 °C = 0 to 90 °C<br>from 67 °C = 0 to 70 °C |
| Max. operating pressure   | See rating plate   |
| <b>Electrical connection</b>  |  |
| Mains connection  | 1~230 V +10%/-15%, 50/60 Hz<br>(acc. to IEC 60038)   |
| <b>Motor/electronics</b>  |  |
| Protection class  | See rating plate   |
| Insulation class  | F  |
| Energy efficiency index EEI *   | See rating plate   |
| <b>Minimum suction head at suction connection for preventing cavitation at water pumping temperature</b>                          |  |
| Minimum suction head at 50/95/110°C   | 0.5 / 4.5 / 11 m   |

\* Reference value for most efficient circulation pumps is  $EEI \leq 0.20$

### 5.3 Scope of delivery

- Complete circulation pump
  - Wilo-Connector
  - 2 gaskets
- Installation and operating instructions

## 5.4 Accessories

Accessories must be ordered separately. For a detailed list and description, see the catalogue/price list.

The following accessories are available:

- PWM signal cable, length 2 m with connection plug
- Thermal insulation shell

## 6 Description and function

### 6.1 Description of the pump

The pump (Fig. 1) consists of a hydraulic system, a glandless pump motor with a permanent magnet rotor, and an electronic control module with an integrated frequency converter. The control module contains both an operating knob for setting the control mode and the setpoint and a speed control, which can be carried out via an external PWM signal of a controller. The pump is equipped with an LED ring to show the operating status of the pump (see chapter 10).

### 6.2 Functions

All functions can be set, activated or deactivated using the operating knob or via an external PWM signal.

#### Settings:



#### Variable differential pressure ( $\Delta p-v$ )

The differential-pressure setpoint  $H$  is increased linearly over the permitted volume flow range between  $\frac{1}{2}H$  and  $H$  (Fig. 3a). The differential pressure generated by the pump is adjusted to the corresponding differential-pressure setpoint.



#### Constant rotation speed

The pump runs constantly at a pre-set fixed speed (Fig. 3b).



### **PWM 1 mode – geothermal**

In PWM 1 mode – geothermal, the pump speed is controlled depending on the PWM input signal (Fig. 3c).

Behaviour in the event of a cable break:

If the signal cable is separated from the pump, e.g. due to a cable break, the pump accelerates to maximum speed.



### **PWM 2 mode – solar**

In PWM 2 mode – solar, the pump speed is controlled depending on the PWM input signal (Fig. 3d).

Behaviour in the event of a cable break:

If the signal cable is separated from the pump, e.g. due to a cable break, the pump stops.

### **External control via a PWM signal**

The required setpoint/actual value comparison for controlling is performed by an external controller. A PWM signal is supplied as a correcting variable to the pump from the external controller. The PWM signal generator gives the pump a periodic sequence of impulses (the duty cycle) in accordance with DIN IEC 60469-1. The correcting variable is determined by the ratio of the impulse duration to the impulse period duration. The duty cycle is specified as a dimensionless ratio with a value of 0 ... 1 or 0 ... 100%. PWM signal logic 1 (geothermal) Fig. 3c and PWM signal logic 2 (solar) Fig. 3d.

## **7 Installation and electrical connection**



### **DANGER! Risk of fatal injury!**

**Incorrect installation and improper electrical connections can be life-threatening.**

- **The installation and electrical connection may only be carried out by qualified personnel in accordance with the applicable regulations!**
- **Adhere to regulations for accident prevention!**

## 7.1 Installation

- Only install the pump after all welding and soldering work has been completed and the pipe system has been flushed through.
- Mount the pump in a readily accessible place for easy inspection and dismantling.
- Shut-off valves should be installed upstream and downstream of the pump to facilitate a possible pump replacement.
  - Perform installation so that any possible leaking water cannot drip onto the control module.
  - To do this, align the upper gate valve laterally.
- In thermal insulation work, make sure that the pump motor and the module are not insulated. The condensate drain openings must remain uncovered.
- Install without tension and with the pump motor in the horizontal position. See fig. 4 for installation positions of the pump.
- Direction arrows on the pump housing indicate the direction of flow.

## 7.2 Electrical connection



### **DANGER! Risk of fatal injury!**

**Improper electrical connections can lead to fatal electric shocks.**

- **Have the electrical connection established by an electrician approved by the local electricity supplier only and in accordance with local regulations.**
- **Disconnect the supply voltage before any work.**
- The current type and voltage of the mains connection must correspond to the details on the rating plate.
- Maximum back-up fuse: 10 A, slow-blow.
- Earth the pump according to the regulations.
- Connect the Wilo-Connector (Fig. 5a to 5e).  
Dismantle the Wilo-Connector in accordance with Fig. 5f.  
A screwdriver is needed for this.



- Connect the PWM signal cable (accessories):  
Remove the sealing plug for the PWM plug on the housing.  
To lock the PWM plug in the housing, insert the PWM plug all the way into the housing and press down the white locking button. Before removing the PWM plug first pull the white button back up again.  
Cable assignment (Fig. 6):
  - Brown, PWM + (signal characteristics)
  - Blue, PWM – (mass)



**CAUTION! Risk of property damage!**

**At the PWM input the maximum voltage is 24V pulsed input voltage. The connection of mains voltage (AC) will destroy the PWM input and cause serious damage to the product. If the mains voltage (AC) has been connected to the PWM input, the product must be taken out of operation and replaced with a new one!**

## 8 Commissioning



**WARNING! Risk of injury and damage to property!**

**Incorrect commissioning can cause personal injury or property damage.**

- **Commissioning by qualified personnel only!**
- **Depending on the pump or system operating conditions (fluid temperature), the entire pump can become very hot. Touching the pump can cause burns!**

### 8.1 Operation

The pump is operated using the operating knob. To select the different control modes and set the delivery head or constant rotation speed, turn the knob. (Fig. 2).

**Factory setting: constant rotation speed,  
½ max. rotation speed**

### 8.1.1 Filling and venting

Fill and vent the system correctly.

### 8.1.2 Setting the control or operating mode

To select the control mode symbol and set the desired delivery head, turn the operating knob.



#### **Variable differential pressure ( $\Delta p-v$ ):** Fig. 2, Fig. 3a

The pump for the control mode  $\Delta p-v$  is set on the left of the middle position.



#### **Constant rotation speed:** Fig. 2, Fig. 3b

The pump for the control mode constant rotation speed is set on the right of the middle position. In this control mode the pump is not self-regulating, it runs constantly at a pre-set fixed speed.



#### **PWM 1 mode – geothermal:**

When the operating knob is rotated fully left to the orange marked area of the scale, the PWM 1 mode – geothermal is activated. The colour of the LED ring changes to orange.



NOTE: Not available with Yonos PICO STG\*\*/1-13 as this pump is only intended for drainback solar systems.



#### **PWM 2 mode – solar:**

When the operating knob is rotated fully right to the orange marked area of the scale, the PWM 2 mode – solar is activated. The colour of the LED ring changes to orange.



NOTE: All settings and displays are retained if the mains supply is interrupted.

## 9 Maintenance



### **DANGER! Risk of fatal injury!**

There is a risk of fatal injury from electric shock when working on electrical equipment.

- **Before starting any maintenance and repair work, disconnect the pump from the power supply, and make sure it cannot be switched back on by unauthorised persons.**
- **Any damage to the connection cable should only ever be eradicated by a qualified electrician.**

After successful maintenance and repair work, install and connect the pump according to the “Installation and electrical connection” chapter. Switch on the pump according to the “Commissioning” chapter.

## 10 Faults, causes and remedies

| LED                   | Meaning             | Operating status                           | Cause            | Remedy |
|-----------------------|---------------------|--|------------------|--------|
| illuminated in green  | Pump in operation   | Pump is running according to your settings | Normal operation |        |
| illuminated in orange | Pump is in PWM mode | Pump is speed-controlled by the PWM signal | Normal operation |        |

| LED               | Meaning   | Operating status  | Cause   | Remedy   |
|-------------------|---|---|---|--|
| flashes red/green | The pump is ready for operation but not running | Pump will start running independently again once the fault is no longer present | 1. Undervoltage $U < 160 \text{ V}$<br>or<br>Undervoltage $U > 253 \text{ V}$ | 1. Check power supply<br>$195 \text{ V} < U < 253 \text{ V}$ |
|                   |   |   | 2. Excess module temperature: motor temperature too high                      | 2. Check medium and ambient temperature                      |
| flashes red       | Pump is not functioning                         | Pump is not running (blocked)   | Pump is not starting independently again                                      | Renew pump   |
| flashes orange    | Pump is not functioning                         | Pump is not running   | Pump is not starting  | Renew pump   |
| LED off           | No power supply                                 | Electronics have no voltage   | 1. Pump is not connected to the power supply                                  | 1. Check cable connection                                    |
|                   |   |   | 2. LED defective  | 2. Check if the pump is running                              |
|                   |   |   | 3. Electronics defective  | 3. Renew pump  |

**If the operating fault cannot be remedied, please consult a specialist technician or the Wilo factory after-sales service.**

## 11 Spare parts

Spare parts may be ordered via a local specialist and/or customer service.

To avoid queries and incorrect orders, all the data of the rating plate should be submitted with each order.

## 12 Disposal

Proper disposal and recycling of this product prevents damage to the environment and risks to personal health.

1. Use public or private disposal organisations when disposing of all or parts of the product.
2. For more information on proper disposal, please contact your local council or waste disposal office or the supplier from whom you obtained the product.



NOTE: The pump must not be disposed of along with household waste.

For further information on recycling, go to [www.wilo-recycling.com](http://www.wilo-recycling.com)

**Subject to change without prior notice!**

**EG KONFORMITÄTSERKLÄRUNG**  
**EC DECLARATION OF CONFORMITY**  
**DECLARATION DE CONFORMITE CE**

Als Hersteller erklären wir hiermit, dass die Nassläufer-Umwälzpumpen der Baureihe  
*We, the manufacturer, declare that these glandless circulating pump types of the series*  
*Nous, fabricant, déclarons que les types de circulateurs de la série*

**Yonos PICO-STG**

*(Die Seriennummer ist auf dem Typenschild des Produktes angegeben / The serial number is marked on the product site plate / Le numéro de série est inscrit sur la plaque signalétique du produit)*

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entsprechen :  
*In their delivered state comply with the following relevant directives :*  
*dans leur état de livraison sont conformes aux dispositions des directives suivantes :*

- \_ Niederspannungsrichtlinie 2006/95/EG**
- \_ Low voltage 2006/95/EC**
- \_ Basse tension 2006/95/CE**
  
- \_ Elektromagnetische Verträglichkeit-Richtlinie 2004/108/EG**
- \_ Electromagnetic compatibility 2004/108/EC**
- \_ Compatibilité électromagnétique 2004/108/CE**
  
- \_ Richtlinie energieverbrauchsrelevanter Produkte 2009/125/EG**
- \_ Energy-related products 2009/125/EC**
- \_ Produits liés à l'énergie 2009/125/CE**

Nach den Ökodesign-Anforderungen der Verordnung 641/2009 für Nassläufer-Umwälzpumpen, die durch die Verordnung 622/2012 geändert wird  
*This applies according to eco-design requirements of the regulation 641/2009 for glandless circulators amended by the regulation 622/2012*  
*sont également conformes aux dispositions des normes européennes harmonisées suivantes :*

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

sowie auch den Bestimmungen zu folgenden harmonisierten europäischen Normen :  
*comply also with the following relevant harmonized European standards :*  
*sont également conformes aux dispositions des normes européennes harmonisées suivantes :*

**EN 60335-2-51**

**EN 61000-6-1:2007**

**EN 16297-1**

**EN 61000-6-2:2005**

**EN 16297-3**

**EN 61000-6-3+A1:2011**

**EN 61000-6-4+A1:2011**

Dortmund,

**H. HERCHENHEIN**  
**Group Quality Manager**



Digital  
unterschieden von  
holger.herchenhein  
@wilo.com  
Datum: 2014.10.01  
13:14:56 +02'00'

**wilo**

**WILO SE**  
**Nortkirchenstraße 100**  
**44263 Dortmund - Germany**

N°2117937.01  
*(CE-A-S n°4193710)*

|   |   |
|---|---|
| <p align="center"><b>(BG) - БЪЛГАРСКИ ЕЗИК</b><br/><b>ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ ЕО</b></p> <p>WILO SE декларира, че продуктите посочени в настоящата декларация съответстват на разпоредбите на следните европейски директиви и прилетите ги национални законодателства:</p> <p>Ниско Напрежение 2006/95/ЕО ; Електромагнитна съвместимост 2004/108/ЕО ; Продукти, свързани с енергопотреблението 2009/125/ЕО</p> <p>както и на хармонизираните европейски стандарти, упоменати на предишната страница.</p>  | <p align="center"><b>(CS) - Čeština</b><br/><b>ES PROHLÁŠENÍ O SHODĚ</b></p> <p>WILO SE prohlašuje, že výrobky uvedené v tomto prohlášení odpovídají ustanovením níže uvedených evropských směrnic a národním právním předpisům, které je přejímají:</p> <p>Nízké Napětí 2006/95/ES ; Elektromagnetická Kompatibilita 2004/108/ES ; Výrobků spojených se spotřebou energie 2009/125/ES</p> <p>a rovněž splňují požadavky harmonizovaných evropských norem uvedených na předcházející stránce.</p>   |
| <p align="center"><b>(DA) - Dansk</b><br/><b>EF-OVERENSSTEMMELSESERKLÆRING</b></p> <p>WILO SE erklærer, at produkterne, som beskrives i denne erklæring, er i overensstemmelse med bestemmelserne i følgende europæiske direktiver, samt de nationale lovgivninger, der gennemfører dem:</p> <p>Lavspændings 2006/95/EF ; Elektromagnetisk Kompatibilitet 2004/108/EF ; Energiøkonomiserende produkter 2009/125/EF</p> <p>De er ligeledes i overensstemmelse med de harmoniserede europæiske standarder, der er anført på forrige side.</p>                           | <p align="center"><b>(EL) - Ελληνικά</b><br/><b>ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΚ</b></p> <p>WILO SE δηλώνει ότι τα προϊόντα που ορίζονται στην παρούσα ευρωπαϊκά δηλωσή είναι σύμφωνα με τις διατάξεις των παρακάτω οδηγιών και τις εθνικές νομοθεσίες στις οποίες έχει μεταφερθεί:</p> <p>Χαμηλής Τάσης 2006/95/ΕΚ ; Ηλεκτρομαγνητικής συμβατότητας 2004/108/ΕΚ ; Συνδεόμενα με την ενέργεια προϊόντα 2009/125/ΕΚ</p> <p>και επίσης με τα εξής εναρμονισμένα ευρωπαϊκά πρότυπα που αναφέρονται στην προηγούμενη σελίδα.</p>   |
| <p align="center"><b>(ES) - Español</b><br/><b>DECLARACIÓN CE DE CONFORMIDAD</b></p> <p>WILO SE declara que los productos citados en la presente declaración están conformes con las disposiciones de las siguientes directivas europeas y con las legislaciones nacionales que les son aplicables :</p> <p>Baja Tensión 2006/95/CE ; Compatibilidad Electromagnética 2004/108/CE ; Productos relacionados con la energía 2009/125/CE</p> <p>Y igualmente están conformes con las disposiciones de las normas europeas armonizadas citadas en la página anterior.</p> | <p align="center"><b>(ET) - Eesti keel</b><br/><b>EÜ VASTAVUSDEKLARATSIOONI</b></p> <p>WILO SE kinnitab, et selles vastavustunnistuses kirjeldatud tooted on kooskõlas alajärjearvate Euroopa direktiivide sätetega ning riiklike seadusandlustega, mis nimetatud direktiivide üle on võtnud:</p> <p>Madalpingeseadmed 2006/95/EÜ ; Elektromagnetilist Ühilduvust 2004/108/EÜ ; Energiatõrjumärgistused 2009/125/EÜ</p> <p>Samuti on tooted kooskõlas eelmisel leheküljel ära toodud harmoniseeritud Euroopa standarditega.</p>                                 |
| <p align="center"><b>(FI) - Suomen kieli</b><br/><b>EY-VAATIMUSTENMUKAISUUSVAKUUTUS</b></p> <p>WILO SE vakuuttaa, että tässä vakuutuksessa kuvutat tuotteet ovat seuraavien eurooppalaisten direktiivien määräysten sekä niihin sovellettavien kansallisten lakiasetusten mukaisia:</p> <p>Matala Jännite 2006/95/EY ; Sähkömagneettinen Yhteensopivuus 2004/108/EY ; Energiaan liittyvien tuotteiden 2009/125/EY</p> <p>Lisäksi ne ovat seuraavien edelläsiellä sivulla mainittujen yhdenmukaistettujen eurooppalaisten normien mukaisia.</p>                        | <p align="center"><b>(HR) - Hrvatski</b><br/><b>EZ IZJAVA O SUKLADNOSTI</b></p> <p>WILO SE izjavljuje da su proizvodi navedeni u ovoj izjavi u skladu sa sljedećim prihvaćenim europskim direktivama i nacionalnim zakonima:</p> <p>Smjernica o niskom naponu 2006/95/EZ ; Elektromagnetna kompatibilnost - smjernica 2004/108/EZ ; Smjernica za proizvode relevantne u pogledu potrošnje energije 2009/125/EZ</p> <p>i uskladenim europskim normama navedenim na prethodnoj stranici.</p>  |
| <p align="center"><b>(HU) - Magyar</b><br/><b>EK-MEGFELELŐSÉGI NYILATKOZAT</b></p> <p>WILO SE kijelenti, hogy a jelen megfeleléségi nyilatkozatban megjelölt termékek megfelelnek a következő európai irányelvek előírásainak, valamint azok nemzeti jogrendbe áttüzetett rendelkezéseinek:</p> <p>Alacsony Feszültségű 2006/95/EK ; Elektromágneses összeférhetőségre 2004/108/EK ; Energiával kapcsolatos termékek 2009/125/EK</p> <p>valamint az előző oldalon szereplő, harmonizált európai szabványoknak.</p>  | <p align="center"><b>(IT) - Italiano</b><br/><b>DICHIARAZIONE CE DI CONFORMITÀ</b></p> <p>WILO SE dichiara che i prodotti descritti nella presente dichiarazione sono conformi alle disposizioni delle seguenti direttive europee nonché alle legislazioni nazionali che le traspongono :</p> <p>Bassa Tensione 2006/95/CE ; Compatibilità Elettromagnetica 2004/108/CE ; Prodotti connessi all'energia 2009/125/CE</p> <p>E sono pure conformi alle disposizioni delle norme europee armonizzate citate a pagina precedente.</p>                               |
| <p align="center"><b>(LT) - Lietuvių kalba</b><br/><b>EB ATITIKTIES DEKLARACIJA</b></p> <p>WILO SE pareiškia, kad šioje deklaracijoje nurodyti gaminiai atitinka šių Europos direktyvų ir jas perkeliančių nacionalinių įstatymų nuostatus:</p> <p>Žema įtampa 2006/95/EB ; Elektromagnetinis Suderinamumas 2004/108/EB ; Energija susijusiems gaminiams 2009/125/EB</p> <p>ir taip pat harmonizuotas Europos normas, kurios buvo cituotos ankstesniame puslapyje.</p>  | <p align="center"><b>(LV) - Latviešu valoda</b><br/><b>EK ATBILSTĪBAS DEKLARĀCIJA</b></p> <p>WILO SE deklarē, ka izstrādājumi, kas ir nosaukti šajā deklarācijā, atbilst šeit uzskaitīto Eiropas direktīvu nosacījumiem, kā arī atveišķu valstu likumiem, kuros tie ir ietverti:</p> <p>Zemsprieguma 2006/95/EK ; Elektromagnētiskās Saderības 2004/108/EK ; Enerģiju saistītiem ražojumiem 2009/125/EK</p> <p>un saskaņotajiem Eiropas standartiem, kas minēti iepriekšējā lappusē.</p>  |
| <p align="center"><b>(MT) - Malti</b><br/><b>DIKJARAZZJONI KE TA' KONFORMITÀ</b></p> <p>WILO SE jidkijjara li l-prodotti speċifikati f'din id-dikjarazzjoni huma konformi mad-direttivi Ewropej li jsegwu u mal-legislazzjonijiet nazzjonali li japplikawhom:</p> <p>Ultraġg Baxx 2006/95/KE ; Kompatibilità Elettromanjetika 2004/108/KE ; Prodotti relati mal-enerġija 2009/125/KE</p> <p>kif ukoll man-normi Ewropej armonizzati li jsegwu imsemmija fil-paġna preċedenti.</p>   | <p align="center"><b>(NL) - Nederlands</b><br/><b>EG-VERKLARING VAN OVEREENSTEMMING</b></p> <p>WILO SE verklaart dat de in deze verklaring vermelde producten voldoen aan de bepalingen van de volgende Europese richtlijnen evenals aan de nationale wetgevingen waarin deze bepalingen zijn overgenomen:</p> <p>Laagspannings 2006/95/EG ; Elektromagnetische Compatibiliteit 2004/108/EG ; Energiegerelateerde producten 2009/125/EG</p> <p>De producten voldoen eveneens aan de geharmoniseerde Europese normen die op de vorige pagina worden genoemd.</p> |

|   |   |
|---|---|
| <p align="center"><b>(NO) - Norsk</b><br/><b>EU-OVERENSSTEMMELSESRKLÆING</b></p> <p>WILO SE erklærer at produktene nevnt i denne erklæringen er i samsvar med følgende europeiske direktiver og nasjonale lover:<br/>EG-Lavspenningsdirektiv 2006/95/EG ; EG-EMV-Elektromagnetisk kompatibilitet 2004/108/EG ; Direktiv energirelaterte produkter 2009/125/EF<br/>og harmoniserte europeiske standarder nevnt på forrige side.</p>  | <p align="center"><b>(PL) - Polski</b><br/><b>DEKLARACJA ZGODNOŚCI WE</b></p> <p>WILO SE oświadcza, że produkty wymienione w niniejszej deklaracji są zgodne z postanowieniami następujących dyrektyw europejskich i transponującymi je przepisami prawa krajowego:<br/>Niskich Napięć 2006/95/WE ; Kompatybilności Elektromagnetycznej 2004/108/WE ; Produktów związanych z energią 2009/125/WE<br/>oraz z następującymi normami europejskich zharmonizowanymi podanymi na poprzedniej stronie.</p>          |
| <p align="center"><b>(PT) - Português</b><br/><b>DECLARAÇÃO CE DE CONFORMIDADE</b></p> <p>WILO SE declara que os materiais designados na presente declaração obedecem às disposições das directivas europeias e às legislações nacionais que as transcrevem :<br/>Baixa Voltagem 2006/95/CE ; Compatibilidade Electromagnética 2004/108/CE ; Produtos relacionados com o consumo de energia 2009/125/CE<br/>E obedecem também às normas europeias harmonizadas citadas na página precedente.</p>  | <p align="center"><b>(RO) - Română</b><br/><b>DECLARAȚIE DE CONFORMITATE CE</b></p> <p>WILO SE declară că produsele citate în prezenta declarație sunt conforme cu dispozițiile directivelor europene următoare și cu legislațiile naționale care le transpun :<br/>Joasă Tensiune 2006/95/CE ; Compatibilitate Electromagnetică 2004/108/CE ; Produselelor cu impact energetic 2009/125/CE<br/>și, de asemenea, sunt conforme cu normele europene armonizate citate în pagina precedentă.</p>                |
| <p align="center"><b>(RU) - русский язык</b><br/><b>Декларация о соответствии Европейским нормам</b></p> <p>WILO SE заявляет, что продукты, перечисленные в данной декларации о соответствии, отвечают следующим европейским директивам и национальным предписаниям:<br/>Директива ЕС по низковольтному оборудованию 2004/95/EC ; Директива ЕС по электромагнитной совместимости 2004/108/EC ; Директива о продукции, связанной с энергопотреблением 2009/125/EC<br/>и гармонизированным европейским стандартам, упомянутым на предыдущей странице.</p> | <p align="center"><b>(SK) - Slovenčina</b><br/><b>ES VYHLÁSENIE O ZHODE</b></p> <p>WILO SE čestne prehlasuje, že výrobky ktoré sú predmetom tejto deklarácie, sú v súlade s požiadavkami nasledujúcich európskych direktív a odpovedajúcich národných legislatívnych predpisov:<br/>Nízkonapäťové zariadenia 2006/95/ES ; Elektromagnetickú Kompatibilitu 2004/108/ES ; Energetický významných výrobkov 2009/125/ES<br/>ako aj s harmonizovanými európskych normami uvedenými na predchádzajúcej strane.</p>  |
| <p align="center"><b>(SL) - Slovenščina</b><br/><b>ES-IZJAVA O SKLADNOSTI</b></p> <p>WILO SE izjavlja, da so izdelki, navedeni v tej izjavi, v skladu z določili naslednjih evropskih direktiv in z nacionalnimi zakonodajami, ki jih vsebujejo:<br/>Nizka Napetost 2006/95/ES ; Elektromagnetno Združljivostjo 2004/108/ES ; Izdelkov, povezanih z energijo 2009/125/ES<br/>pa tudi z usklajenimi evropskimi standardi, navedenimi na prejšnji strani.</p>   | <p align="center"><b>(SV) - Svenska</b><br/><b>EG-FÖRSÄKRAN OM ÖVERENSSTÄMMELSE</b></p> <p>WILO SE intygar att materialet som beskrivs i följande intyg överensstämmer med bestämmelserna i följande europeiska direktiv och nationella lagstiftningar som inför dem:<br/>Lågspännings 2006/95/EG ; Elektromagnetisk Kompatibilitet 2004/108/EG ; Energirelaterade produkter 2009/125/EG<br/>Det överensstämmer även med följande harmoniserade europeiska standarder som nämnts på den föregående sidan.</p> |
| <p align="center"><b>(TR) - Türkçe</b><br/><b>CE UYGUNLUK TEYİD BELGESİ</b></p> <p>WILO SEbu belgede belirtilen ürünlerin aşağıdaki Avrupa yönetmeliklerine ve ulusal kanunlara uygun olduğunu beyan etmektedir:<br/>Alçak Gerilim Yönetmeliği 2006/95/AT ; Elektromanyetik Uyumluluk Yönetmeliği 2004/108/AT ; Eko Tasarım Yönetmeliği 2009/125/AT<br/>ve önceki sayfada belirtilen uyumlaştırılmış Avrupa standartlarına.</p>   |   |



# Wilo – International (Subsidiaries)

## Argentina

WILO SALMSON  
Argentina S.A.  
C.1295ABI Ciudad  
Autónoma de Buenos Aires  
T +54 11 4361 5929  
info@salmson.com.ar

## Australia

WILO Australia Pty Limited  
Murrarie, 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  
1065 Baku  
T +994 12 5962372  
info@wilo.az

## Belarus

WILO Bel IOOO  
220035 Minsk  
T +375 17 3963446  
wilo@wilo.by

## Belgium

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

## Bulgaria

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

## Brazil

WILO Comercio e  
Importação Ltda  
Jundiaí – São Paulo – Brasil  
13.213-105  
T +55 11 2923 9456  
wilo@wilo-brasil.com.br

## Canada

WILO Canada Inc.  
Calgary, Alberta T2A 5L7  
T +1 403 2769456  
info@wilo-canada.com

## China

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

## Croatia

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

## Cuba

WILO SE  
Oficina Comercial  
Edificio Simona Apto 105  
Siboney, La Habana, Cuba  
T +53 5 2795135  
T +53 7 272 2330  
raul.rodriguez@wilo-cuba.com

## Czech Republic

WILO CE, 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 Salmson France S.A.S.  
53005 Laval Cedex  
T +33 2435 95400  
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 SA  
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

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

## Indonesia

PT. WILO Pumps Indonesia  
Jakarta Timur, 13950  
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  
20250 Casablanca  
T +212 (0) 5 22 66 09 24  
contact@wilo.ma

## The Netherlands

WILO Nederland B.V.  
1551 NA Westzaan  
T +31 88 954 000  
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  
– Sistemas Hidraulicos 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@watanaiand.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  
2065 Sandton  
T +27 11 6082780  
patrick.hulley@  
salmson.co.za

## Spain

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

## Sweden

WILO NORDIC AB  
35033 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 CO., Ltd.  
24159 New Taipei City  
T +886 2 2999 8676  
nelson.wu@wilo.com.tw

## Turkey

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

## Ukraine

WILO Ukraina t.o.w.  
08130 Kiev  
T +38 044 3937384  
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