Wilo-MVIE 11 --> 22 kW / Wilo-HELIX-VE 11 --> 22 kW

D Einbau- und Betriebsanleitung

GB Installation and operating instructions

F Notice de montage et de mise en service

4093679 – Ed.04-09/08

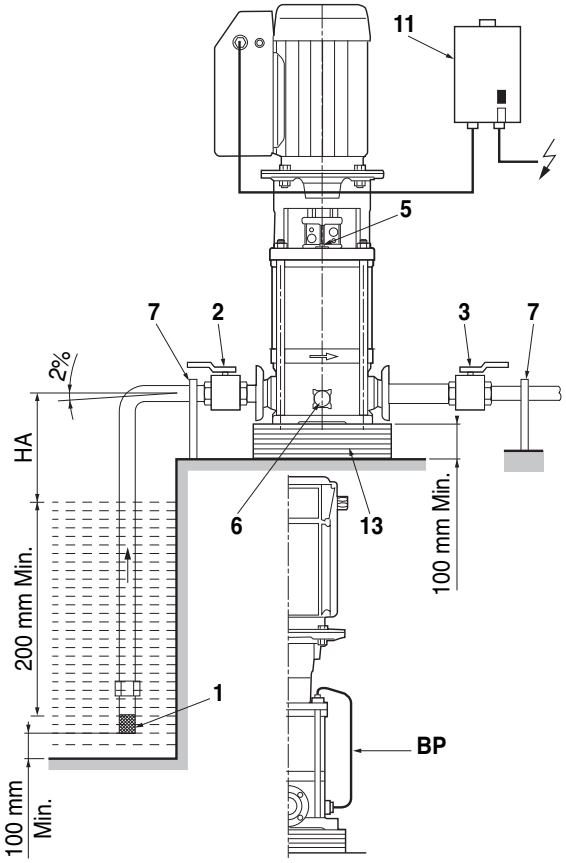


Fig. 1

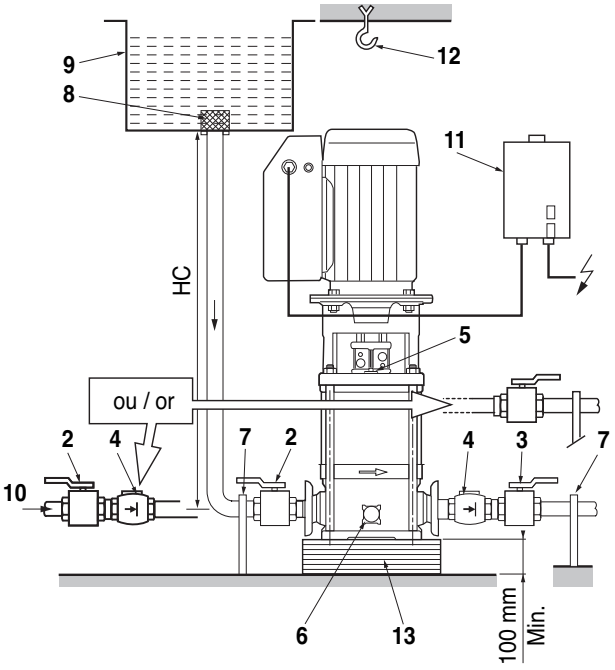


Fig. 2

TYPE	PN corps	L mm	P mm	X mm	Y mm	E mm	ØD mm
1606	16	252	190	215	130	20	12
1606→ 1610	25						
2205	16	270	190	215	130	5	12
2207→ 2209	25						
3203→ 3205	16	235	235	195	195	35	14
3203→ 3207	25	260	260	220	220	35	14
5203→ 5205	16	260	260	220	220	30	14
5203→ 5205	25						
7002→ 7004	16	350	261	280	199	45	14
7002→ 7004	25						
9501→9503	16	350	261	280	199	45	14
9501→9503	25						

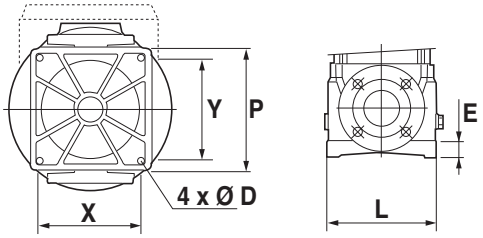


Fig. 3

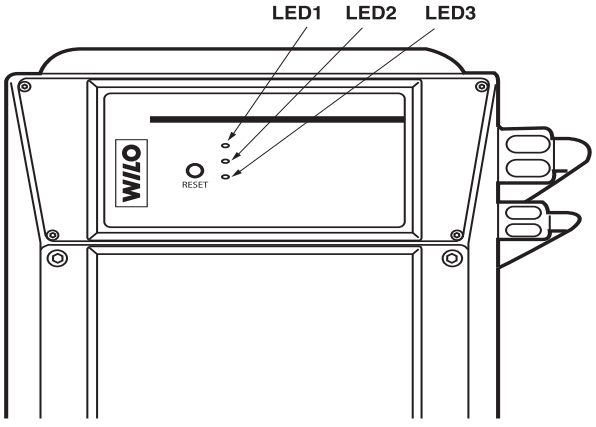


Fig. 4

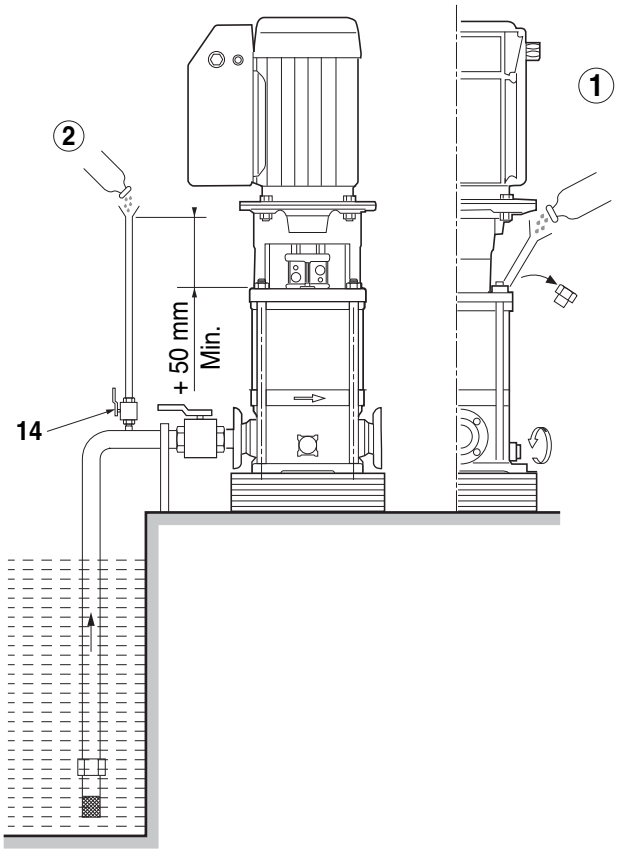


Fig. 5

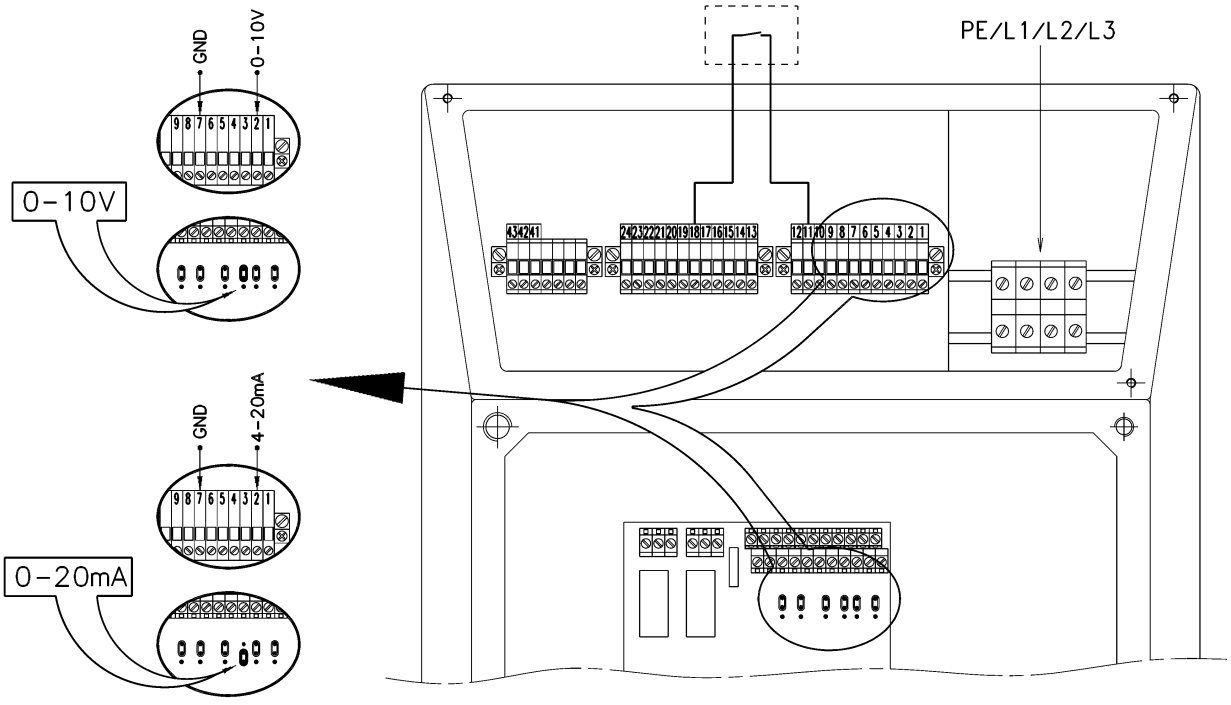


Fig. 6

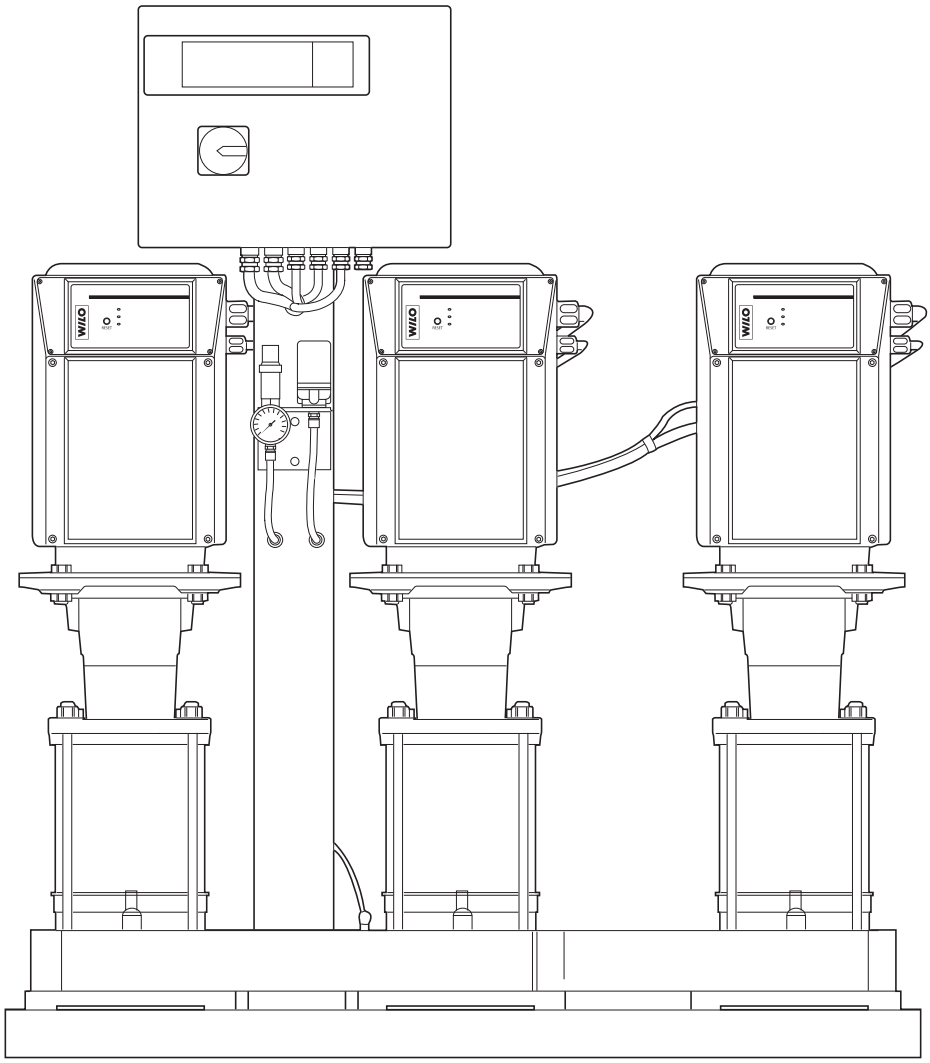


Fig. 7

D

GB

F

1. General

Installation and service by qualified personnel only

1.1 Uses

Pumps aimed at pumping clear liquids in building, agriculture and industry areas …
Water supply, water tower, sprinkling, high pressure washing, boiler supply (with mandatory by-pass kit) – lifting of condensates – air conditioning – industrial networks and integration in all modular systems.

1.2 Product Data

1.2.1 Connection and electrical data (table 1)

Temperature range : versions EPDM O'ring and mechanical seal (KTW/WRAS approved versions)[1)] Viton O'ring and mechanical seal (agressiv water)		–15 °C to +120 °C –15 °C to +90 °C
Maximum ambient temperature (standard product)		+40 °C maxi
Maximum permissible working pressure :	Maximum suction pressure Pump casing PN 16 Pump casing PN 25	10 bars 16 bars 25 bars
Mains voltages		3~ 400 V (±10%) - 50Hz 3~ 380 V (±6%) - 60Hz
Maximum suction head		according NPSH of the pump
Ambient humidity		<90 %
Protection index		IP 54
Insulation class		F
Pump acoustic level tolerance + 3dB (A) :	11 kW 15 kW 18,5 kW 22 kW	78 78 81 81

1) (WRAS : according to British standard - KTW : according to German standard).

EMC

This product complies with the standard EN 61800-3 (2nd environment).

WARNING : in domestic environment this product may cause radio interferences in which case the user may be required to take adequate measures.

Principal dimensions and connection dimensions
(table 2, see also fig. 3)

Types		PN 16 version			PN 25 version		
	L	P	X	Y	P	X	Y
MVIE	mm	mm			mm		
1606	252	190	215	130			
1606 to 1610	252				190	215	130
2205	270	190	215	130			
2207 to 2209	270				190	215	130
3203 to 3205	235	235	195	195			
3203 to 3207	260				260	220	220
5203 to 5205	260	260	220	220	260	220	220
7002 to 7004	350	264	280	199	261	280	199
9501 to 9503	350	264	280	199	261	280	199

When ordering spare parts, please give all the information on the pump/rotor rating plate.

1.2.2 Type key

MVIE 32 03 -11- 1 / 16 / E / 3 - 2 / B

- Pump family (Centrifugal pump, Multistage vertical, electronic)
- Flow rate (m^3/h) (2 poles/50 Hz)
- Number of impellers in row
- Power for MVIE 3203 only
- Steel grade :
  1 = 1.4301 (AISI 304)
  2 = 1.4404 (AISI 316L)
  3 = corps GJL-250
  + coating + hydraulics 1.4301 (AISI 304)
- Maximum permissible working pressure (bars)
- Gaskets – EPDM (KTW/WRAS)
  Gaskets – VITON
- Mains voltage
  3 = 3 400 V
- 2 = 2 poles
- Index of technical evolution

2. Safety

These instructions contain major information, which must be observed when installing and operating the pump.
These instructions must therefore be by the installer and the responsible operator before the pump is installed or started up.
Both the general safety instructions in the «safety precautions» section and those in subsequent sections indicated by danger symbols should be carrefully observed.

2.1 Symbols used in the instruction
Safety precaution which if not followed could cause personal injury:

Safety precaution concerning electrical risks which if not followed could cause personal injury:

Safety precaution which if not followed could cause damages to the pump or installation and cause it to malfunction:

CAUTION !

Useful hint to give suggestions and helps the work to be carried out:

NOTE!

2.2 Qualified personnel
The personnel installing the pump must have the appropriate qualifications for this work.

2.3 Risks incurred by failure to comply with the safety precautions
Failure to comply with the safety precautions could result in personal injury or damage to the pump or installation. Failure to comply with the safety precautions could also invalidate any claim for damages.
In particular, failure to comply with these safety precautions could lead, for example, to risks such as :
- Significant failure of the pump or installation.
- Personal injury due to electrical, mechanical or bacteriological causes.
- Damage to property.

2.4 Safety precautions for the operator
Existing regulations for the prevention of accidents must be followed. Dangers caused by electrical energy (electric shock or electrocution) are to be excluded. Safety precautions issued by the local electricity supply company are to be observed.

2.5 Safety precautions for the installation
The operator must ensure that all inspection and installation work is carried out by authorised and qualified specialists who have carefully studied these instructions.
Work on the pump or installation should only be carried out when the pump is OFF.

2.6 Unauthorized alterations and manufacture of spare parts
Alterations to the pump or installation may only be carried out with the manufacturer's consent. The use of original spare parts and accessories authorized by the manufacturer will ensure safety. The use of any other parts may invalidate claims invoking the liability of the manufacturer for any consequences.

2.7 Improper use
The operating safety of the pump or installation supplied can only be guaranteed if it is used in accordance with paragraph 1 of the operating instructions.
The limiting values given in the catalogue or data sheet must under no circumstances be exceeded.

3. Transport and interim storage

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

During transport and in storage the pump must be protected against moisture, frost and mechanical damage.

Due to high position of centre of gravity and small ground surface of this type of pumps, beware of instability during handling to avoid any falling down and take necessary means to avoid injuries or damaging.

Handle the pump carefully so as not to alter the geometry and the alignment of the unit.

CAUTION ! In no case the pump must be lifted by the converter, use some lifting hooks for any handling.

4. Description and function

4.1 Description (fig. 1-2-5)
1 : Strainer-foot valve
2 : Pump suction valve
3 : Pump discharge valve
4 : Non-return valve
5 : Venting and filling plug
6 : Drain-priming plug
7 : Pipe supports or brackets
8 : Strainer
9 : Storage tank
10 : Town water supply
11 : Switch and section switch with fuses
12 : Lifting hook
13 : Foundation block
14 : Cock
BP: By-pass
HA : Maximum suction head
HC : Minimum inlet pressure

4.2 Design of pump and motor

- Multistage vertical pump not self-priming, with ports in line on the same axis in bottom part.
- Asynchronous motor with standardized flange and shaft end for vertical operation fitted with its converter.
- Motor-pump linked by a coupling with safety guards.
- Shaft sealing by standardized mechanical seal.
- Hydraulic connection:
  Round flanges: pump delivered with rings and bolts without counter flanges (accessories as option).

4.3 Accessories as option

See catalogue or data sheet.

5. Assembly

CAUTION ! Installation and service by qualified personnel only.

5.1 Installation

Two standard types :
Fig. 1: pump in suction.
Fig. 2: pump under pressure on storage tank (item9) or town water supply (item10).

– Install the pump in a place easy to reach, protected against extrema conditions (rain and sun in excess, frost) and as close as possible from the drawing point.
– For heavy pumps provide a point of attachment (lifting hook) in the pump axis (item12) to facilitate removal.
– Install the pump on a concrete block (at least 10 cm high) (item13) and fix with anchor bolts (installation plan see fig.3).
– Foresee an insulating material under the concrete block (cork or reinforced rubber) to avoid any noise and vibration transmission into the installation.
– Before final tightening of anchor bolts, ensure that the pump axis is vertical : use shims if necessary.

CAUTION ! Bear in mind that the altitude of the installation place and the water temperature may reduce the suction possibilities of the pump.

Altitude	Loss of head	Temperature	Loss of head
0 m	0 mCL	20 °C	0,20 mCL
500 m	0,60 mCL	30 °C	0,40 mCL
1000 m	1,15 mCL	40 °C	0,70 mCL
		50 °C	1,20 mCL
		60 °C	1,90 mCL
		70 °C	3,10 mCL
		80 °C	4,70 mCL
		90 °C	7,10 mCL
		100 °C	10,30 mCL
		110 °C	14,70 mCL
		120 °C	20,50 mCL

CAUTION ! **Possible damage of the pump! (cavitation).** Above 80° C, plan to install the pump under pressure.

5.2 Hydraulic connections

CAUTION ! **Possible damage of the pump!** The installation has to bear the pressure reached when the pump runs at maximum frequency and zero flow rate.

- Pump with round flange pump casing : with weld-on or screw-on tube in the counterflanges (counterflanges available as accessories).
- The diameter of the pipe must never be smaller than the one of the counter flange.
- The direction of the fluid flow is indicated on the identification label of the pump.
- Limit the length of the suction pipe and avoid all features that cause losses of head (bends, valves, tapers). **Connections have to be correctly sealed : no air entrance is allowed on the suction pipe which is showing a mounting declivity of at least 2%** (fig. 1).
- Use supports or collars (fig.1 & 2 - item 7) so that the pump does not bear the weight of the pipes.

CAUTION ! When the pump is under pressure, it is recommended to connect the non-return valve to the pump discharge to protect it against hammer blow effects.

NOTE! To pump water with a large content of air or hot water, we recommend to install the by-pass kit (fig.1-item BP).

5.3 Electrical connections

The electric connections and inspections have to be carried out by a qualified electrician and have to comply with the relevant local standards.

- The electric characteristics (frequency, voltage, nominal current) of the motor-converter are mentioned on the name plate. Check that the motor-converter complies with the mains supply used.
- The electric protection of the motors is integrated into the converter. The parameters take into account the characteristics of the pump and must ensure its protection and the one of the motor.
- In case of impedance between earth and neutral point, install a protection before motor-converter.
- Provide a fuse disconnecting switch (type GF) to protect the mains installation (fig.1 & 2-item11).
- If you have to install a differential circuit-breaker for users protection, it must have a delay effect. Adjust it according to the current mentioned on the converter label.
- Use power cables conforming with standards


DO NOT FORGET TO CONNECT TO EARTH.

- The electric connection of the converter (fig.6) has to comply with the schemes of the following table :

CAUTION ! A connection error would damage the converter.

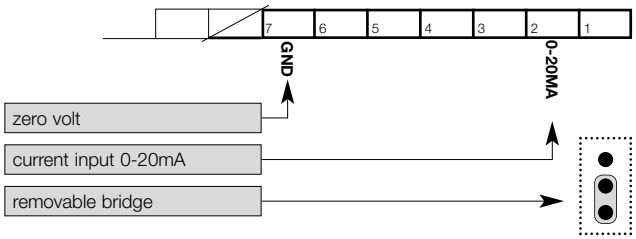
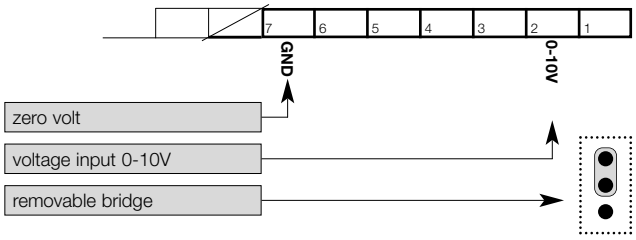
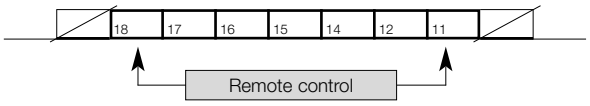

The power cable must never touch the pipe or the pump ; make sure that it is sheltered from any humidity.

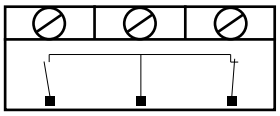
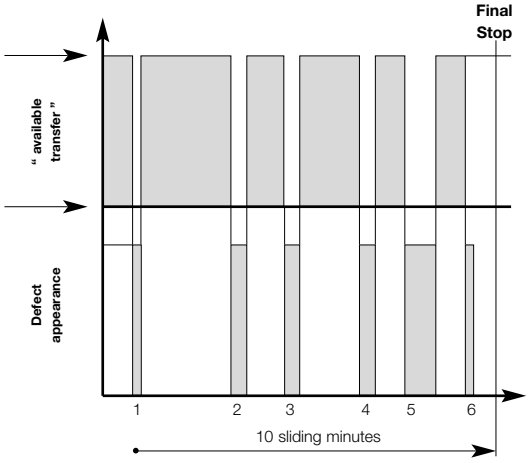
- You can change the orientation of the motor-converter by quarter turn when removing the fixing screws of the motor and reorientating the motor to the wished position.


Place the screws back.

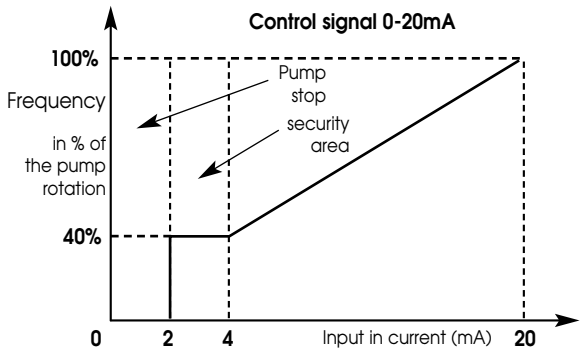
Details of electrical connections

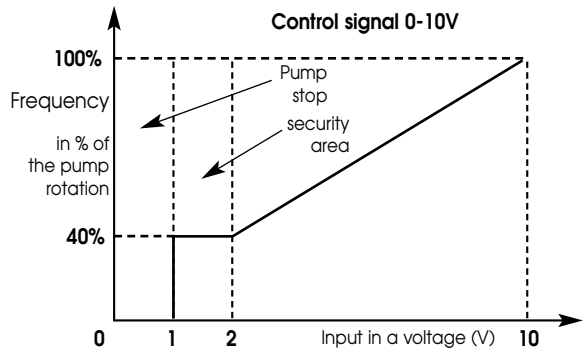
– Loosen the screws and remove the converter cover.

CONNECTION TO MAINS SUPPLY		**POWER TERMINALS**
– Connect the cable 4 wires (3 phases + earth)	wires ≥ ø4 mm2	L1 L2 L3 PE — No special order of the phases
CONNECTION OF INPUTS/OUTPUTS		**TERMINAL FOR INPUTS/OUTPUTS (1 to 10)**
– Control of the converter by an external system with a signal (0-10V) or 0-20mA) A removable jumper has to be placed according to the type of signal.	(see fig. 6)	(See chapter 6 : **starting up**)
- Control with a current signal ..... put the bridge in low position.	0-20mA	
- Control with a voltage signal ..... by default the bridge is in high position, if not carry out the change.	0-10V	
- Possibility to have a remote control ..... (free contact).	Accessories	
	ex :	Float switch, pressure gauge for dry-running...

CONNECTION OF THE SERIES CONTACTS		**TERMINAL FOR SERIES CONTACTS**
The speed variator is fitted with an output relay with free contact aimed for an interface to centralized control For example : control box, pumps control…		
«Available transfer» relay : **Bornes : 41 - 42 - 43**	See fig.6	Example : 6 defects with a variable time limit on 10 sliding minutes according to the following scale :
- feature of the contact ..... The relay is actived when the pump runs or is in a position to run. When a first defect appears or by mains supply cutoff (the pump stops), the relay is no more active. Information are given to the control box, regarding the availability of the pump permanently.	**min12V/10mA max250V/1A** *active relay*	
The number of defects is stored thanks to a counter. If the number of defects is lower than 6 and if after 10 sliding minutes no new defect has been detected, so the number of defects of the counter is reduced of 1. The pump is permanently stopped the counter count 6 defects. An impulse on the RESET button initialize the counter.	*rest relay*	

Control laws





6. Starting up

CAUTION ! If the pump is delivered as separate part, not integrated into a system we mounted, the standard configuration mode is the external control 0-10V.

6.1 Configurations

The pump is controlled with an external system (see fig.7)

If the pump is integrated in a booster assembled by ourselves, consult the booster instructions.

In normal operation the state of the leds is as follows (see fig.4) :

State of LED	Light on	Function Flashing	Switched off
LED1 RED	Detected failure	Failure Limit alarm	No failure
LED2 GREEN	The pump turns	The motor is in acceleration or deceleration phase	The motor is stopped
LED3 GREEN	Pump alive	/	Pump dead

6.2 Preliminary rinsing

Each of our pumps is tested regarding hydraulic features in factory, some water may remain in them. It is recommended for hygien purposes, to carry out a rinsing of the pump before any using with potable water supply.

6.3 Filling - degassing

CAUTION ! Never operate the pump dry, even briefly.

Pump under pressure (see fig. 2)

- Close the discharge valve (item3).
- Open the venting plug (item5), the suction valve (item2) and completely fill the pump.
- Close the venting plug only after water flows out and complete aeration.
- In hot water, a stream of water may escape from the venting plug port.
- Take all required precautions as regards persons and motor-converter.

Pump in suction (see fig.1) : two possible cases.

1st case (see fig.5.1)

- Close the discharge valve (fig.1-item3), open the suction valve (fig.1-item2).
- Remove the venting plug (fig.1-item5)
- Unscrew about 4 turns the bottom drain-priming plug (fig.1-item 6) located on the pump casing.
- Put a funnel into the venting plug port and completely fill the pump and the suction pipe.
- After water flows out and total air exit, filling is achieved.
- Screw the venting plug and the bottom drain-priming plug back in.

2nd case (see fig.5.2)

- Filling can be made easier by fitting on the suction pipe of the pump, a vertical pipe (fig.5-item14) fitted with a Ø 1/2" stopcock and a funnel.
- The length of the pipe must be at least 50 mm taller than the venting plug level.
- Close the discharge valve (fig.1-item3), open the suction valve (fig.1-item2).
- Open the stopcock (fig.5-item14) and the venting device (fig.1-item5).
- Unscrew about 4 turns the drain-priming plug (fig.1-item 6).
- Completely fill the pump and the suction pipe until water flows out of the venting plug (fig.1-item5).
- Close the stopcock (fig.5-item14) (which can be left in place), remove the pipe, close the venting device (fig.1-item5) and screw again the drain-priming plug (fig.1-item6).

6.4 Starting up

Depending on conveyed fluid and running of pump, surface temperature can exceed 68°C. Take necessary means to avoid injuries.

CAUTION ! The pump must not operate at zero flow (closed discharge valve) for more than 10 minutes with cold water (T°C < 40°C) and more than 5 minutes above 60° C.

- We recommend to ensure a minimum flow of about 10 % of the nominal flow of the pump to avoid the formation of a vapour lock at the top of the pump.
- Keep the discharge valve closed.
- Start the pump.
- Open draining plug to drain air. If no water leaks within 20s, close the plug and stop the pump, then wait 20s to allow air to settle.

- Start again the pump.
- If necessary (particularly if the suction height exceeds 5 m) repeat these operations.
- If water leaks at draining plug (it means the pump delivers its pressure), slowly open the discharge valve.
- The pump has to be primed.
- Check pressure stability at discharge with a manometer, if instability, perfect air draining.
- In case of failure, do the filling in again and start the operation again.
- To perfect air draining, close the discharge valve and the draining plug, then stop the pump 20s, start the pump again and open the draining plug. Do it as long as air comes out.
- Open the discharge valve in order to have the wished working point.
- Check that the current input does not exceed the value indicated on the identification pump plate.

7. Maintenance

CAUTION ! Before any operation, switch off the pump(s).

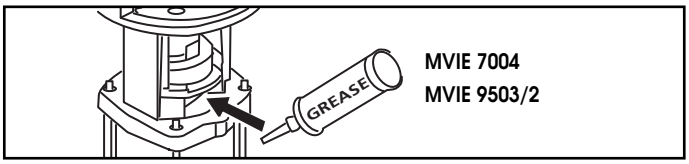
No special maintenance in operation.

Keep the pump and the motor-converter perfectly clean.

In case of prolonged stopping, if there is no risk of frost, it is best not to drain the pump.

The bearing holding the coupling and the motor bearings are lubricated for their total lifetime and do not require any lubrication.

On pumps equipped with greaser under bearing box, see regreasing instructions written on sticker put on it.



On other models, the bearing holding the coupling is lubricated for its total lifetime.

It is recommended to grease the shaft end as well as the coupling boring with a high adhering grease (type type D321R Molikote or 8191 Loctite for example) to facilitate any further diassembling.

The mechanical seal does not require any maintenance in operation. It must never operate dry.

8. Defaults-Causes-Remedies

Before carrying out any maintenance work, switch off the pump and ensure that it cannot be switched on again by unauthorised people.

CAUTION ! **Never carry out work on a running pump.**

DEFECTS DETECTED BY THE SPEED VARIATOR

All incidents hereafter mentioned give rise to :
- The resting of the "available transfer" relay.
- The activation of the "failure transfer" relay when the maximum quantity of defect is reached.
- ligthening of a red LED.

INCIDENTS	CAUSES	REMEDIES
8.1 THE PUMP IS OVERLOADED	a) The Ventilation of the converter is uncertain :	a) Check that the cooling channel is not obstructed.
	b) The pump is obstructed by foreign matters :	b) Dismantle the pump, replace the defective components or clean.
	c) The pump is locked :	c) Dismantle the pump, clean it and replace the defective parts. Possibly mechanical defect of the motor (bearings). Clean all the pipework.
	d) The fluid density is too important :	d) Limit the maximum loading point of the pump according to the type of fluid.
8.2 ELECTRICAL INCIDENTS	a) The supply of the converter is in over-or under-voltage :	a) Check the voltage at the converter terminals.
	b) A supply phase is missing :	b) Check the supply.
	c) The converter or the motor is in short-circuit :	c) Dismantle the motor-converter of the pump and check it or replace it.
8.3 THE MOTOR / CONVERTER HEATS	a) The ventilation of the converter is uncertain :	a) Check that the cooling channel is not obstructed and that fans run correctly.
	b) The motor cooling is uncertain :	b) Clean the cooling ribs of the motor.
	c) The pump is used in the ambient temperature higher 40 °C :	c) The motor / converter is foreseen to run at a maximum ambient temperature of + 40 °C.

-The "failure transfer" relay is active when the counter reaches 6 failures.

1) If the pump is completely stopped and an intervention on this one is necessary, cut the supply ; correct the failure, switch on the supply again.

2) If the failure cause has been suppressed without cutting the converter supply ; the pump must start again after an impulse on the "reset" button (See FIG. 4).

- If the defect is major, the action of an after-sales technician is required.

Other defects, not detected by the speed variator, due to the pump.

Before any operation, SWITCH OFF the pump(s).
If the liquid is toxic, corrosive or dangerous for human being, WILO or the qualified person in charge of the repairing must be informed. In this case, clean the pump to ensure a complete safety to the repairing man.

DEFAULTS	CAUSES	REMEDIES
8.4 THE PUMP TURNS BUT NO DELIVERY	a) The pump does not run quickly enough :	a) Check the adequate adjustment of the potentiometer (conformity to the required points).
	b) The internal parts are obstructed by particles :	b) Let dismantle the pump and clean it.
	c) Suction pipe are obstructed :	c) Clean all the pipes.
	d) Air in suction piping :	d) Check tightness of the whole pipe up to be pump an make it tight.
	e) Suction pressure is too low, it causes generally cavitation noise :	e) Too high losses of load on suction or suction head is too high. (Check the NPSH of the pump installed and of the installation).
8.5 THE PUMP IS VIBRATING	a) Loose on its foundation :	a) Check and tighten completely the nuts of the stud bolts.
	b) Particles obstrucing the pump :	b) Have the pump dismantled and clean it.
	c) Difficult rotation of the pump :	c) Check the pump turns freely without abnormal sticking.
8.6 NO SUFFICIENT PRESSURE FOR THE PUMP	a) The motor speed is not high enough :	a) Check the reference is correctly adjusted (conformity of the reference points).
	b) The motor is defective :	b) Replace Motor-converter.
	c) Bad filling of the pump :	c) Open the venting device and venty until there are no more air bubbles.
	d) The drain-priming plug is not fully tightened :	d) Check it and screw it again.
8.7 THE FLOW IS IRREGULAR	a) The suction head (HA) is not respected :	a) Study again the installation conditions and the recommendations described in this manual.
	b) The suction pipe has a lower diameter than the one of the pump :	b) The suction pipe must have the same diameter as the suction pump port.
	c) The strainer and the suction pipe are partially obstructed :	c) Remove and clean.

If the fault cannot be remedied, please contact your plumbing and heating specialist or your nearest WILO customer services or representative.

Subject to technical alterations!

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

Hiermit erklären wir, dass die Bauarten der Baureihe : **MVIE 11–22 kW**
Herewith, we declare that this product:
Par le présent, nous déclarons que cet agrégat :

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:
in its delivered state comply with the following relevant provisions:
est conforme aux dispositions suivants dont il relève:

EG–Maschinenrichtlinie **98/37/EG**
EC–Machinery directive
Directives CEE relatives aux machines

Elektromagnetische Verträglichkeit – Richtlinie **2004/1008/EG**
Electromagnetic compatibility – directive
Compatibilité électromagnétique– directive

Niederspannungsrichtlinie **2006/95/EG**
Low voltage directive
Direction basse–tension

Angewendete harmonisierte Normen, insbesondere: **EN 809**
Applied harmonized standards, in particular: **EN 50178**
Normes harmonisées, notamment: **EN 61800–3**

Dortmund, 14.09.2007

i. V.

Erwin Preis
Quality Manager

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Document: 2060374.2

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

Hiermit erklären wir, dass die Bauarten der Baureihe : **HELIX VE 11 – 22 kW TL6/TL7**
Herewith, we declare that this product:
Par le présent, nous déclarons que cet agrégat :

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:
in its delivered state comply with the following relevant provisions:
est conforme aux dispositions suivants dont il relève:

EG-Maschinenrichtlinie **EC-Machinery directive** **Directives CEE relatives aux machines**	**98/37/EG**
Elektromagnetische Verträglichkeit - Richtlinie **Electromagnetic compatibility - directive** **Compatibilité électromagnétique- directive**	**2004/108/EG**
Niederspannungsrichtlinie **Low voltage directive** **Direction basse-tension**	**2006/95/EG**

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

Angewendete harmonisierte Normen, insbesondere: *Applied harmonized standards, in particular:* *Normes harmonisées, notamment:*	**EN 809** **EN 50178** **EN 61800-3**

Bei einer mit uns nicht abgestimmten technischen Änderung der oben genannten Bauarten, verliert diese Erklärung ihre Gültigkeit.
If the above mentioned series are technically modified without our approval, this declaration shall no longer be applicable.
Si les gammes mentionnées ci-dessus sont modifiées sans notre approbation, cette déclaration perdra sa validité.

Dortmund, 01.10.2008

ppa. O. Breuing
Oliver Breuing
Quality Manager

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Germany

Document: 2098870.1

NL **EG-verklaring van overeenstemming**

Hiermede verklaren wij dat dit aggregaat in de geleverde uitvoering voldoet aan de volgende bepalingen:

EG-richtlijnen betreffende machines 98/37/EG

Elektromagnetische compatibiliteit 2004/1008/EG

EG-laagspanningsrichtlijn 2006/95/EG

Gebruikte geharmoniseerde normen, in het bijzonder: **1)**

I **Dichiarazione di conformità CE**

Con la presente si dichiara che i presenti prodotti sono conformi alle seguenti disposizioni e direttive rilevanti:

Direttiva macchine 98/37/CE

Compatibilità elettromagnetica 2004/1008/EG

Direttiva bassa tensione 2006/95/EG

Norme armonizzate applicate, in particolare: **1)**

E **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 98/37/CE

Directiva sobre compatibilidad electromagnética 2004/1008/EG

Directiva sobre equipos de baja tensión 2006/95/EG

Normas armonizadas adoptadas, especialmente: **1)**

P **Declaração de Conformidade CE**

Pela presente, declaramos que esta unidade no seu estado original, está conforme os seguintes requisitos:

Directivas CEE relativas a máquinas 98/37/CE

Compatibilidade electromagnética 2004/1008/EG

Directiva de baixa voltagem 2006/95/EG

Normas harmonizadas aplicadas, especialmente: **1)**

S **CE- försäkran**

Härmed förklarar vi att denna maskin i levererat utförande motsvarar följande tillämpliga bestämmelser:

EG–Maskindirektiv 98/37/EG

EG–Elektromagnetisk kompatibilitet – 2004/1008/EG

EG–Lågspänningsdirektiv 2006/95/EG

Tillämpade harmoniserade normer, i synnerhet: **1)**

N **EU-Overensstemmelseserklæring**

Vi erklærer hermed at denne enheten i utførelse som levert er i overensstemmelse med følgende relevante bestemmelser:

EG–Maskindirektiv 98/37/EG

EG–EMV–Elektromagnetisk kompatibilitet 2004/1008/EG

EG–Lavspenningsdirektiv 2006/95/EG

Anvendte harmoniserte standarder, særlig: **1)**

FIN **CE-standardinmukaisuusseloste**

Ilmoitamme täten, että tämä laite vastaa seuraavia asiaankuuluvia määräyksiä:

EU–konedirektiivit: 98/37/EG

Sähkömagneettinen soveltuvuus 2004/1008/EG

Matalajännite direktiivit: 2006/95/EG

Käytetyt yhteensovitetut standardit, erityisesti: **1)**

DK **EF-overensstemmelseserklæring**

Vi erklærer hermed, at denne enhed ved levering overholder følgende relevante bestemmelser:

EU–maskindirektiver 98/37/EG

Elektromagnetisk kompatibilitet: 2004/1008/EG

Lavvolts-direktiv 2006/95/EG

Anvendte harmoniserede standarder, særligt: **1)**

H **EK. Azonossági nyilatkozat**

Ezennel kijelentjük,hogy az berendezés az alábbiaknak megfelel:

EK Irányelvek gépekhez: 98/37/EG

Elektromágneses zavarás/türés: 2004/1008/EG

Kisfeszültségü berendezések irány-Elve: 2006/95/EG

Felhasznált harmonizált szabványok, különösen: **1)**

CZ **Prohlášení o shodě EU**

Prohlašujeme tímto, že tento agregát v dodaném provedení odpovídá následujícím příslušným ustanovením:

Směrnicím EU–strojní zařízení 98/37/EG

Směrnicím EU–EMV 2004/1008/EG

Směrnicím EU–nízké napětí 2006/95/EG

Použité harmonizační normy, zejména: **1)**

PL **Deklaracja Zgodności CE**

Niniejszym deklarujemy z pełną odpowiedzialnoscią że dostarczony wyrób jest zgdony z następującymi dokumentami:

EC–dyrektywa dla przemysłu maszynowego 98/37/EG

Odpowiedniość elektromagnetyczna 2004/1008/EG

Normie niskich napięć 2006/95/EG

Wyroby są zgodne ze szczegółowymi normami zharmonizowanymi: **1)**

RUS **Деклация о соответствии Европейским нормам**

Настоящим документом заявляем, что данный агрегат в его объеме поставки соответствует следующим нормативным документам:

Директивы ЕС в отношении машин 98/37/EG

Электромагнитная устойчивость 2004/1008/EG

Директивы по низковольтному напряжению 2006/95/EG

Используемые согласованные стандарты и нормы, в частности : **1)**

GR **Δήλωση προσαρ ογής της Ε.Ε.**

Δηλώνου ε ότι το προϊόν αυτό σ' αυτή την κατάσταση παράδοσης ικανοποιεί τις ακόλουθες διατάξεις :

Οδηγίες ΕG για ηχανή ατα 98/37/EG

Ηλεκτρο αγνητική συ βατότητα -2004/1008/EG

Οδηγία χα ηλής τάσης 2006/95/EG

Εναρ ονισ ένα χρησι οποιού ενα πρότυπα, ιδιαίτερα: **1)**

TR **CE Uygunluk Teyid Belgesi**

Bu cihazın teslim edildiği ºekliyle aºağıdaki standartlara uygun olduğunu teyid ederiz:

AB-Makina Standartları 98/37/EG

Elektromanyetik Uyumluluk 2004/1008/EG

Alçak gerilim direktifi 2006/95/EG

Kısmen kullanılan standartlar: **1)**

1) **EN 809**

EN 50178

EN 61800-3

i. V.

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August 2008

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Stand August 2008

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