



**Made
in
Germany**

**Edelstahl-Tauchpumpe
Submersible pump stainless steel
Pompe submersible en inox**

**D
GB
F**

E-ZW, E-ZW A, E-ZW KS



**Betriebsanleitung
Operating Instructions
Manuel d'utilisation**

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EU-Declaration of Conformity

Manufacturer **ZEHNDER Pumpen GmbH**
Zwönitzer Straße 19
08344 Grünhain-Beierfeld,

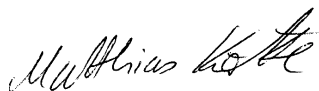
Product name: submersible motor pump
Type designation: E-ZW 50-2, E-ZW 65, E-ZW 80
Technical specifications: Rated voltage 230 V 50 Hz
Power rating: 210W, 430W, 430W
Protection class: I
Protection degree: IP 68

- In accordance with EEC-low voltage specifications 2014/35 EU
- In accordance with EMV-Specifications 2014/30 EU
- In accordance with Machinery Directive 2006/42 EU

Applied harmonised norms, particularly

EN 60335-1:2012/A11:2014
EN 60335-2-41:2003/A2:2010
EN 809:1998/AC:2010
EN 55014-1:2006/A2:2011, EN 55014-2:1997/A2:2008
EN 61000-3-2:2014, EN 61000-3-3:2013
EN 61000-6-1:2007, EN 61000-6-2:2005, EN 61000-6-3/A1:2011, EN 61000-6-4/A1:2011

Grünhain-Beierfeld, 21.03.2017



Matthias Kotte
Product development manager

1. General

1.1 Application

This operating instruction is valid for the waste water lifting unit type E-ZW.

Non-compliance with the operating instructions - in particular with the safety instructions - as well as non-manufacturer modification or use of non-original spare parts will result in loss of guarantee coverage. The manufacturer accepts no liability for damage or injury resulting from incorrect use of the equipment.

These dewatering pumps are designed for delivering of well contaminated water with particulate materials from private household, industry and agriculture. The particle size must not exceed the mentioned size at ch. 1.3.

This product may also pass as any other electrical equipment in cause of lacking electrical supply. If you may get any damages thereby, please calculate in accordance to the use an emergency power generator, a second pump and/ or a network independent alarm system. As the manufacturer we will be at your disposal after the buying for near information. In cause of defects or damages please contact your retail trader.

Manufacturer: ZEHNDER Pumpen GmbH
Zwönitzer Straße 19
08344 Grünhain-Beierfeld

Instruction last modified: 06/2022

1.2 Queries and Ordering

For queries and orders please contact your authorised retail trader.

1.3 Technical data

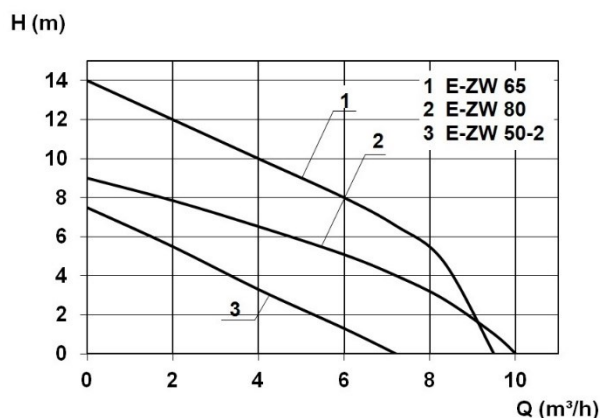
Typ:	E-ZW 50 -2	E-ZW 65	E-ZW 80
Input power P ₁	380 W	850 W	850 W
Motor power P ₂	210 W	430 W	430 W
Voltage / frequency	230 V / 50 Hz		
Nominal current	1.8 A	3.7 A	3.7 A
Nominal speed	2800 U/min		
Power cable	10 m, 3 x 1 mm ²		
max. capacity	7,500 l/h	9,500 l/h	10,000 l/h
max. head	7,5 m	14 m	9 m
max. particle size	10 mm	10 mm	30 mm
Pressure size	G 1 1/4" IG		
Weight	6,5 kg	8,0 kg	9,0 kg
Height over all	340 mm	358 mm	372 mm
Diameter	175 mm		
max. liquid temperature	40 °C (temporary 90 °C)		
max. dive in depth	5 m		
Minimum switch-on water level	200 mm		
Minimum switch-off water level	45 mm		

Design also possible with float switch or compact float

Materials

Pump body	PP	Impeller	PA 6
Outer housing	Stainless steel	Float switch	PP
Strainer	Stainless steel	Screws	Stainless steel
Motor housing	Stainless steel	Seals	Carbon/ Ceramics
Motor shaft	Stainless steel		

Characteristics



1.4 Areas of application

The E-ZW pumps are suitable for the extraction of slightly polluted water with suspended particles (no stones) from private households, industry and agriculture. The size of the suspended matter shall not exceed the maximum grain size referred to in point 1.3.

Attention: The units of this range are not suitable for sewage water from toilets and fatty water from kitchens.

2. Safety

(from: "VDMA-Standard publication 24 292")

These instructions for use contain general information, which should be noted when setting up, using and servicing the equipment. Installers and / or users must read and understand in detail these instructions prior to installation and servicing. These instructions must always be available at the site of the installation. All safety instructions must be full observed.

2.1 Marking of information in the instruction for use



Danger symbol in accordance with DIN 4844 - W9,

for warnings regarding electrical current the following symbol is used



Danger symbol in accordance with DIN 4844 - W8

The word "**Attention**" or "**Caution**" is used to introduce safety instructions whose non-observance may lead to damage to the machine and its functions.

2.2 Personal qualification

The personnel for operation, maintenance, inspection and assembly shall have the appropriate qualifications for such work. The responsibility, responsibility and supervision of the personnel must be precisely regulated by the operator. If the necessary knowledge is not available to the staff, they must be trained and instructed. This can, if necessary, be carried out by the manufacturer / supplier on behalf of the pump operator. Furthermore, the operator must ensure that the contents of the operating instructions are fully understood by the personnel. This equipment may be used by children over 8 years of age and over, as well as by persons with reduced physical, sensory or mental abilities, or lack of experience and knowledge when supervised or instructed regarding the safe use of the equipment and the resulting dangers. Children must not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision. manual.

2.3 Dangers arising due to non-compliance with safety advice

Ignoring of safety instructions can lead to danger of personnel and to the environment as well as causing possible damage to the equipment. Non-compliance with safety instructions can lead to the loss of right to claim damages. Non-compliance with safety instructions can lead for example to:

- Breakdown in important functions of the equipment
- Breakdown in prescript methods for maintenance and upkeep
- Danger of injury from electrical, mechanical or chemical sources
- Environmental damage resulting from leaks of environmentally dangerous substances

2.4 Safety conscious work

These safety instructions, as well as all national safety requirements and extra internal company precautions or such laid down by the owner of the equipment must be observed.

2.5 Safety information for the owner / operator

- Any parts of the machine which could be a possible source of hot or cold burns should be covered.
- Covering for rotating parts (i.e. coupling) should be not removed while the machine is in use.
- Leak out (i.e. sealing of shaft) of dangerous substances (i.e. explosives, poisons, hot liquids) have to be handled in such a way that no danger to persons or the environment may occur. Legal requirements must be observed.
- Danger resulting from electrical current must be prevented. (For more information consult your local electricity board.)

2.6 Safety information for maintenance, inspection and fitting

The owner must ensure that all maintenance, inspection and fitting work is carried out by qualified and authorised personnel who are familiar with the operating instructions for equipment. In general all maintenance work must be carried out while the equipment is not in operation. The instructions for turning off the equipment contained in these operating instructions must be observed.

Pumps and units which carry hazardous materials must be decontaminated.

Immediately after completion of the work all safety and protection coverings should be reinstalled and / or switched on. Please observe all instructions set out in the section on “Installation / commencement of operation” before returning the machine to service.

2.7 Non-manufacturer modification and spare part production

Modifications or alterations of the machine are only permitted after consultation with the manufacturer. Original spare parts and accessories authorized by the manufacturer ensure safety. The use of other parts can invalidate any liability of the manufacturer for consequential damage.

2.8 Unauthorized usage

The safety of the delivered pump is only guaranteed by usage according to the section 1 – General - of the instructions. The listed maximum ratings as per specification should under no circumstances be exceeded. The improper use of the pump, i.e. pumping of air or explosive media is strictly forbidden.

CAUTION

Also, this waste water pump, as a fully automatic utensil may need supervision from time to time and ensure if left inactive for long periods that the electrical supply to the pump is switch off.

3. Description

- The pumps of E- ZW- series are fitted with a robust single- phase TEFC electric motor.
- The most important seal is a mechanical seal between motor and pump- body and also a rotating mechanical seal.
- All units have a 10m power supply cable with plug for 230V 50Hz single-phase.
- Other voltages are possible on demand. Please note the data printed on the type-plate.



- This pump must be connected to an earthed outlet.
- Do not lower or lift the pump by means of the power cable.
- A damaged power cable must be replaced immediately by a qualified electrician. Danger of personal injury by electrical shock if operated with a damaged cable!
- If the pump is connected to an electric installation where an earth-leakage circuit breaker (CB) is used as an additional protection, this circuit breaker must trip out when earth fault current exceeds 30mA.



- Any operation of the pump next to a swimming pool or garden pond is only permitted if the unit is installed in accordance to local legislations. It is strictly forbidden to swim while using the pump in the swimming pool.
- If in doubt consult a qualified electrician.

4. Installation and commencement of operation



Before starting any work on the pump/motor make sure that the electric supply has been switched off and that it can not be accidentally switched on.

Before installing and starting please check the waste water lifting unit for possible damages (i.e. during transport) to prevent personal injury by electrical shock.

If the pump is installed stationary inside a shaft, the minimum dimension should be 450 x 450 x 450mm. The build- on float switch (version A) could be locked at a shaft wall. The float switch mounted at the pump must be able to work free. As the water level rises, the float switch does too, the pump starts working until a certain level is reached, when the float switch stops automatically. The height for turning on/ off can be varied by displacing the float switch cable in the fastening eye.

The function of the float switch can be verified by raising and lowering of the float switch. Pumps without float switch will start immediately upon placing of the plug in the outlet.



To avoid damages of the pump hydraulics and seals, the pump must not run dry! Also it is forbidden to use the pump against a closed valve.

5. Maintenance / Service



Always disconnect from power before servicing!

Service and repair at electrical parts of the pump (cable, motor) has to be done by authorised service- companies or producer.

In case of very low temperatures and in any case before the first frost the pump must be removed from water.

Empty the pump and store it in a place where it is protected from frost.

Service and repair at electrical parts of the pump (cable, motor) has to be done by authorised service- companies or producer.

The servicing of the pump consists of cleaning and checking the pump body. The strainer may dismount through removing the screws at the rear side of the pump. Complete this in reverse order.

A possible wear of the impeller (i.e. through abrasive media) may result in the damaging of the mechanical seal. The checking of the mechanical seal and the motor should be done by a qualified electrician.

In case of very low temperatures and in any case before the first frost the pump must be removed from water. Empty the pump and store it in a place where it is protected from frost. We recommend to switching on the pump for a very short time to avoid a jamming of the mechanical seal every 2 month.

For the purpose of a repair service kits and service tools are available on request. You will find a topical overview about our service partners at www.zehnder-pumpen.de.

We explicitly mention that spare parts and accessories which are not delivered and checked by Zehnder are. The built in and use of such products may negatively affect the constructive set properties under these circumstances. For damages which arise by using of non-original spare parts and accessories Zehnder will refuse any liability and warranty. For faults which you can not repair by yourself you should contact our customer service or a qualified person.

6. Warranty

This pump carries a 24 month manufacturer warranty. The warranty period begins with the date of purchase by the end user. Proof of purchase should be retained. Within this period we will remove all kind of shortcoming due to failures of material or assembling. It is up to us either to repair or to replace the pump.

This warranty does not cover damage cause by improper use or wear and tear (i.e. mechanical seal). Also, there will be no warranty given in case of unauthorized repair of the pump. Consequential damages caused by failing of the pump are not covered by the manufacturer.

7. Disposal



For EU-countries only.

Do not dispose the pump into the domestic waste.

In accordance to the European guideline 2002/96/EG concerning electrical and electronic equipment and implanting into national law used electrical tools have to be collected separately and supplied to an environmentally compatible recycling.

8. Technical Modification

... without prior notice.

9. Fault, possible reason and recovery

Faults	Possible reasons	Recovery
Motor does not run	Wrong or missing voltage	Check the power supply
	Incorrect connection	Adjust the connection
	Power cable damaged	Renew power cable (customer service)
	Impeller blocked	Clean
	Motor protection activated (superheated, blocked, voltage error or other defect)	Check, inform the customer service
	Float switch blocked	Position the pump so, that float switch works unhindered
	Pump motor damaged	Consult the customer service
Motor runs, but does not lift	Impeller blocked or worn	Clean or renew
	Pressure pipe blocked/ - hose shrinked	Clean/ remove the kink
	Strainer blocked	Clean
	Pump is not correct de- aerated	At the first starting up of the pump de-aerate the pressure pipe so that water will attain the pump housing.
Flow rate too lowly	Pump is not correct de- aerated	At the first starting up of the pump de-aerate the pressure pipe so that water will attain the pump housing.
Motor runs too loud	Dimensions of pressure pipe too small	Dimension 25mm in diameter at minimum

10. Spare part list

Pos.	Pcs.	Descripti on	Art-No. E-ZW 50-A2	Art-No. E-ZW 65 A	Art-No. E-ZW 80 A
10	1	Outer housing	21822	21823	21823
20	1	Motor connection housing 2-hole (type A, KS)	10281	10281	10281
20	1	Motor connection housing 1-hole (without float)	10291	10291	10291
	1	Motor unit (Pos. 30-120, 140, 190-220 ,240)	12666	12667	12667
90	1	Rotating mechanical seal complete	13215+13157	13215+13	13215+13157
100	1	Radial shaft seal ring 12x26x7	10791	10791	10791
110	0,01 1	Oil WISURA NFW	11690	11690	11690
120	1	O-Ring 95x6,8	13158	13158	13158
140	1	Impeller	23046	23045	23045
170	1	Strainer	21824	21824	21825
200	1	Capacitor holder MST	10131	10131	10131
230	1	Capacitor	22202	22203	22203
240	1	Strip terminal	21983	21983	21983
250	1	Handle	10282	10282	10282
270	2	Screw for handle M5x8-A2	15870	15870	15870
280	2	Rubber gasket	11869	11869	11869
290	2	Screwed cable gland PG 11 Ms	12334	12334	12334
290	1	Pg blind plug PG 11 Ms (without float)	12336	12336	12336
300	4	Ejot Scew PT KA 40x10-WN 1412	20678	20678	20678
305	1	Tension relief	13128	13128	13128
310	1	O-Ring 55x4,0 NBR 70	11859	11859	11859
330	1	Float switch 0,5 m	13146	13146	13146
340	1	Power cable with plug	13130	13130	13130
350	4	Cord grip	10286	10286	10286
360	2	Seal 12,5x16,5x1	11088	11088	11088
370	3	Cylinder head screw M5x50-A2	15321	15321	15325
380	3	Washer DIN 125 5,2-A2	15257	15257	15257
400	3	Threaded sleeve M5x36	12271	12271	12271
410	3	Countersunk screw M 5x16-A2	17109	17109	17109
420	1	Pump body	10101	10101	10103
430	1	O-Ring 158x3 NBR70	11822	11822	11822
440	1	Snap-ring	15324	15324	15324
450	1	O-Ring 158x3 NBR70	11855	11855	11855
460	1	Thrust ring	10095	10095	10092

