

User's Manual

Pool Pump with Variable Rotation Speed

63908–63910



Illustration similar, may vary depending on model

Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!

Illustrations, functional steps, and technical data may deviate insignificantly due to continuous further developments.

Updating the documentation

If you have suggestions for improvement or have found any irregularities, please contact us.



The information contained in this document may alter at any time without prior notice. No part of this document may be copied or otherwise duplicated without prior written consent. All rights reserved. WilTec Wildanger Technik GmbH cannot be held liable for any possible mistakes in this operating manual, nor in the diagrams and illustrations shown.

Although WilTec Wildanger Technik GmbH has made every possible effort to ensure that this operating manual is complete, accurate, and up-to-date, errors cannot be ruled out entirely.

If you have found an error or wish to suggest an improvement, we look forward to hearing from you. Send us an e-mail to:

service@wiltec.info

or use our contact form:

<https://www.wiltec.de/contacts/>

The most recent version of this manual in several languages can be found in our online shop:

<https://www.wiltec.de/docsearch>

Our postal address is:

WilTec Wildanger Technik GmbH
Königsbenden 12
52249 Eschweiler – Germany

To return your goods for exchange, repair, or other purposes, please use the following address. Attention! To allow for a trouble-free complaint or return, it is important to contact our customer service team before returning your goods.

Retourenabteilung
WilTec Wildanger Technik GmbH
Königsbenden 28
52249 Eschweiler – Germany

E-mail: **service@wiltec.info**

Tel: +49 2403 55592-0

Fax: +49 2403 55592-15



Introduction

Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it.

Keep these operation instructions in a safe place.

Product features

This HPP-series intelligent pump with variable frequency is a pump that can record pump frequency and performance changes. It is characterised by simple troubleshooting and high starting torque.

This technical description contains important operating instructions and precise explanations of the setting values and parameters. Before using the pump for the first time (installation, operation, maintenance, and inspection, etc.), carefully and completely read the instructions.

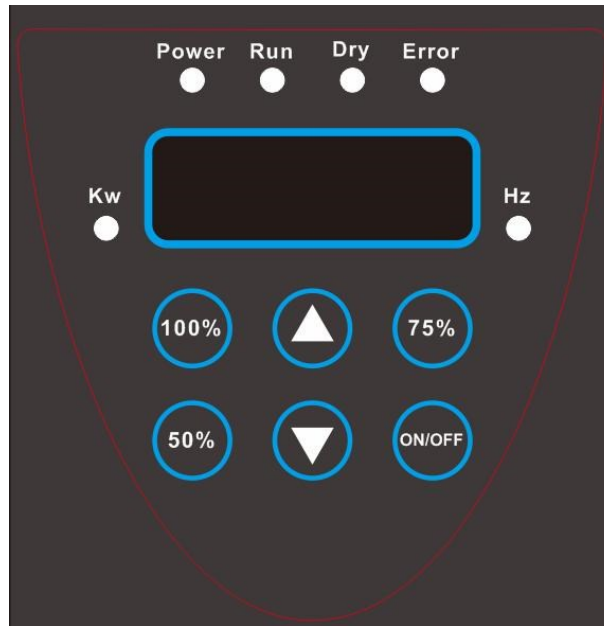
The pump has the following features:

- Data inquiry – Review current power, frequency, and other data
- Convenient speed control – Three dials for quick speed control and up and down buttons for fine speed adjustment
- Low water protection – Automatically shuts off when the pump detects a lack of water in the supply line
- Start-up after water supply – The pump recognizes whether there is still water after it has been switched off due to lack of water and can then be put into normal operation after water supply
- Power fail memory – The pump can automatically record percentage of rotation speed and on/off status

Safety instructions

- The pump must be operated in a clean and dry place with good ventilation.
- Water ingress into the control box and too low or too high temperatures can damage the pump.
- Users must observe the safety rules for using electricity.
- The pump must never be operated with wet hands.
- If there is no fan, it must be ensured that the fan at the end of the motor can blow through the cooling fins to avoid high temperatures.
- The water pump motor is a three-phase induction motor, and the pump is delta-earthed. Please ensure safe and correct earthing.
- Whenever you use the pump, install the frequency converter according to the instructions.
- Always and only operate the pump in accordance with the instructions.

Control panel



| Name | Function |
|-----------------------|--|
| Power | The light goes on when power is supplied. |
| Run | The light is on when the pump is running. |
| Dry | The light flashes when there is a lack of water at the water inlet. |
| Error | The light flashes in the event of a fault. |
| Kw / power | Input power of the engine |
| Hz / frequency | Motor operating frequency |
| 100 % | <ul style="list-style-type: none"> • During operation, short press this button to operate at 100 % frequency. • In non-parametric mode, long press this key to enter parametric mode. • In the parametric mode, short press this button to return to the last menu. |
| 75 % | <ul style="list-style-type: none"> • During operation, short press this button to operate at 75 % rate. • In the interface of the operation or shutdown state, long press this key to switch the display content. |
| 50 % | <ul style="list-style-type: none"> • During operation, short press this button to operate at 50 % frequency. • Press to finalize function codes or parameters. |
| Up arrow key | <ul style="list-style-type: none"> • During operation, a short press of this button will increase the frequency by 1 %. • Incremental increase in function code or data. |
| Down arrow key | <ul style="list-style-type: none"> • In operation, a short press of this button decreases the frequency by 1 %. • Gradual reduction of the function code or data. |
| On/off | <ul style="list-style-type: none"> • During operation, press this button to turn off. When there is a lack of water, the information about the lack of water is deleted from the display screen. • In the off state, press this button to turn on. |



Changing and setting parameters

| | |
|---------------|--|
| Step 1 | Long press the menu button to enter the programming mode and display the function code. |
| Step 2 | Press the up and down button to switch to the function code to change; press enter to make the change and then press the menu key to return to the previous level. |
| Step 3 | Press the up and down button to set certain parameters, press the enter button to save, and then press the menu button to return to the previous level. |

Note!

If you change certain parameters, press the Menu button and the Enter button to return to the last menu. If you press the Enter button to return to the last menu, the set parameters will be saved. If you press the Menu button to return to the last menu, the set parameters will not be saved.

Note!

If you do not press enter key or menu key when setting data, the device will automatically return to the operation or shutdown menu 10 s later, and the data changes will not be saved.

Parameter table

| Functional code | Functional description | Default value | Parameter description |
|-----------------|--|---------------|---|
| F00 | Model selection | 60 | The default value is 60 Hz. |
| F01 | On/off state | 0 | The fault condition is cleared, a subsequent on/off state and power failure are saved. |
| F02 | Time to determine lack of water | 90 | In seconds |
| F03 | Time interval for determining the water supply | 60 | In minutes |
| F04 | Time interval of antifreeze or rust protection | 0 | If the water pump is supplied with electricity, it will be automatically put into operation for 1 min at 30 Hz after the set time (in hours) if there is no lack of water and no continuous operation. This function is not executed if the value is 0. |
| F05 | Percentage of rotation speed | 100 | The default state is full speed operation. Remains saved after power failure. |
| F06 | Choice of model | | Set the model according to the factory setting and do not change it! |
| F07 | Rotation speed setting | 3000 | The rotation speed is saved; the unit is rpm. |
| F08–F16 | Reserved | | Any change is invalid and it is recommended not to change it! |



| | | | |
|---------|---|-------|--|
| F17 | Minimum frequency | 10 | The minimum operating frequency of the water pump should not be changed. |
| F18–F24 | Occupied | | A change is invalid and it is recommended not to change the value! |
| F25 | Direction of operation of the motor | 0 | “0”: clockwise rotation; “1”: counter-clockwise rotation. This setting must be checked in the event of a shutdown. |
| F26 | Slew rate | 10 | Change the slew rate of the motor here (in Hz/s). |
| F27 | Minimum percentage | 40 | Percentage of operation from minimum to full speed |
| F28 | Allowing the determination of lack of water | 1 | “0”: determine whether there is a lack of water; “1”: do not determine whether there is a lack of water |
| F29 | Limit of 40 % lack of water | 95 | Limit of lack of water |
| F30 | Limit of 50 % lack of water | 155 | Limit of lack of water |
| F31 | Limit of 75 % lack of water | 420 | Limit of lack of water |
| F32 | Limit of 100 % lack of water | 720 | Limit of lack of water |
| F33 | Class and power | 1500 | Standard power 1.5 kW. |
| F34 | Fixed end code | 23205 | The fixed end code cannot be changed. |

Note! A factory error may differ from what is specified in the specifications, which is a normal phenomenon.

Error codes

| Error code | Error type | Possible cause | Solution |
|------------|-----------------------------------|---|--|
| E0 | Control board EEPROM error | EEPROM damage | Have EEPROM replaced. |
| E1 | Communication error | Anomaly found in the control panel and in the board | Contact a specialist. |
| E2 | Pressure sensor error | – Insufficient contact at the pressure sensor connection – Damage to the pressure sensor | – Check whether the connection has become loose. – Have pressure sensor replaced. |
| E9 | Main control panel EEPROM error | EEPROM damage | Restore factory settings or contact a specialist. |
| P0 | IPM module overcurrent protection | UVW phase error | Check whether there is a short circuit between three phases of the 3-phase system. |
| P1 | Power pickup error | Fault in the current measurement circuit | Contact a specialist. |



| | | | |
|-----|--|--|--|
| P42 | Motor start error | <ul style="list-style-type: none"> – Damage to engine – Mechanical failure and blockage | <ul style="list-style-type: none"> – Check whether motor is damaged. – Contact a specialist. |
| P43 | Standard phase protection | UVW phase error | Check whether the 3-phase cable of the 3-phase system and the connection has become loose. |
| P46 | Protection against speed loss | Large deviation of the actual speed from the target speed | Check for blockage or contact a specialist. |
| P47 | Overspeed protection | Excessive feedback speed | Restore factory settings or contact a specialist. |
| P48 | Soft start fault | Dead start of the frequency converter | Restore factory settings or contact a specialist. |
| P49 | Motor overcurrent protection | Motor overcurrent | <ul style="list-style-type: none"> – Check whether the motor model matches the frequency converter. – Check that the three wires of the 3-phase system are reversed or contact a specialist. |
| P50 | Protection against busbar undervoltage | <ul style="list-style-type: none"> – Input power undervoltage – Fault in measuring circuit | Check if input voltage is too low. |
| P51 | Protection against overvoltage of the busbar | <ul style="list-style-type: none"> – Input power overvoltage – Fault in measuring circuit | Check if input voltage is too high. |
| P60 | IPM module low temperature protection | Low ambient temperature | Temperature too low; components and parts cannot be put into operation normally. |
| P61 | IMP module overheating protection | Insufficient heat dissipation and protection of the module | Incorrect installation of the fan or reverse installation; remedy. |
| P65 | Drive overload | Drive is being operated with too high a rated power | Replace existing drive with drive with higher performance. |
| P66 | Motor overload | Operating the motor with too high a rated power | Replace the existing motor with a higher power motor. |

General error messages and countermeasures

| Malfunction | Possible causes of the malfunction | Solution |
|--|--|--|
| No power indicator | <ul style="list-style-type: none"> – Input power abnormality – Interruption of connection line of display – Error in rectifier bridge or switching capacity | <ul style="list-style-type: none"> – Check input voltage or correct cable connection. – Check connection cable. – Contact a specialist. |
| The motor does not work after power supply | <ul style="list-style-type: none"> – Feedback pressure higher than set pressure – Motor damaged or blocked | <ul style="list-style-type: none"> – Open valve and reduce pressure. – Check whether water pump works normally. |



| | | |
|---|---|--|
| | – Error in the UVW output of the control board | – Check the control board or contact a specialist. |
| Pump is running, but no water is draining | <ul style="list-style-type: none"> – Is there water in the pump? – Are water inlets and outlets blocked by foreign objects? – Does the motor run anti-clockwise? | <ul style="list-style-type: none"> – Pump can be put into operation after it has been filled with water. – Check whether there are any foreign objects at the water inlet and outlet. – Change the order of the two UV phases in the case of counter-clockwise operation. |
| Frequency report P61 | Fan damaged | Check whether the fan is damaged or contact a specialist. |
| Message P49 or Po after switching on and starting up the water pump | <ul style="list-style-type: none"> – Check that motor rotates counter-clockwise. – Check if UVW wire is shorted | <ul style="list-style-type: none"> – Change order of UV wires when operating counter-clockwise. – Eliminate interruption errors in the event of a short circuit. – Contact a specialist. |

Regulations for waste disposal

The Waste Electrical and Electronic Equipment Directive (WEEE Directive, 2012/19/EU) of the EU was implemented in the German law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE directive are labelled with the symbol of a crossed-out wheeled rubbish bin. This symbol indicates that this electric device must not be disposed of with the domestic waste.

WilTec Technik GmbH is registered with the German registration authority EAR (Stiftung Elektro-Altgeräte Register) under the WEEE-registration number DE45283704.

Disposal of used electrical and electronic devices (intended for use in the countries of the European Union and other European countries with a separate waste collection system for these devices).

The symbol on the packaging or the product itself indicates that this product must not be treated as normal domestic waste but must be disposed of at a recycling collection station for electrical and electronic waste.

By disposing of this product correctly, you contribute to the protection of the environment and the health of your fellow people. Inappropriate disposal threatens the environment and health.



Material recycling helps to reduce the consumption of raw materials.

Additional information about the recycling of this product can be provided by your local commune, the municipal waste disposal facilities, or the store where you purchased the product.

Address:
WilTec Wildanger Technik GmbH
Königsbenden 12 / 28
52249 Eschweiler Germany

Important Note:

Reproduction and any commercial use (of parts) of this operating manual, requires a written permission of WilTec Wildanger Technik GmbH.