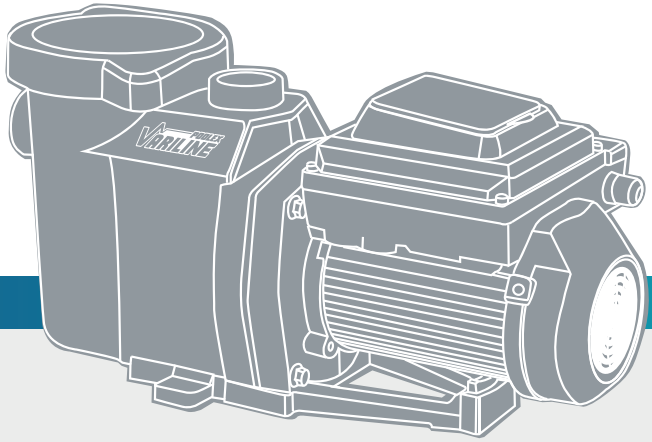
POOLEX

VARILINE WIFI

- Pompe de filtration à vitesse variable
- Variable speed filtration pump
- Bomba de filtración de velocidad variable
- Pompa di filtrazione a velocità variabile
- Filtrationspumpe mit variabler Geschwindigkeit
- Filterpomp met variabele snelheid



MANUEL D'UTILISATION
USER MANUAL
MANUAL DEL USUARIO
MANUALE D'USO
BENUTZERHANDBUCH
HANDLEIDING

LONG LIFE

Longue durée de vie
Long Life
Larga vida útil
Lunga durata
Lange Lebensdauer
Lange levensverwachting

4 vitesses programmables
4 programmable speeds
4 velocidades programables
4 velocità programmabili
4 programmierbare Drehzahlen
4 programmeerbare snelheden

GARANTIE 3 ANS

3 ans de garantie
3 years warranty
3 años garantía
Garanzia di 3 anni
3 Jahre Garantie
3 jaar garantie

Silencieux & efficace
Silent & efficiency
Silenciosa & eficiencia
Silenziosità & efficienza
Leise & effizient
Stil & efficiënt

Économie d'énergie
Energy saving
Ahorro de energía
Risparmio energetico
Energiesparend
Energiebesparend

WWW.POOLEX.FR

Cher client,

Nous vous remercions pour votre achat et pour la confiance que vous accordez à nos produits.

Nos produits sont le résultat d'années de recherche dans le domaine de la conception et de la production d'équipements pour piscine et spa. Notre ambition, vous fournir un produit de qualité aux performances hors normes.

Nous avons réalisé ce manuel avec le plus grand soin afin que vous puissiez tirer le meilleur de votre pompe de filtration Poolex.

Dear customer,

Thank you for your purchase and for your confidence in our products.

Our products are the result of years of research into the design and production of swimming pool and spa equipment. Our aim is to provide you with a quality product that delivers outstanding performance.

We have taken great care in compiling this manual so that you can get the best out of your Poolex filtration pump.

Estimado(a) cliente,

Gracias por su compra y por su confianza en nuestros productos.

Nuestros productos son el resultado de años de investigación en el diseño y producción de equipos para piscinas y spas. Nuestro objetivo es proporcionarle un producto de calidad que ofrezca un rendimiento excepcional.

Nos hemos esmerado en la elaboración de este manual para que pueda sacar el máximo partido de su bomba de filtración Poolex.

Gentile cliente,

La ringraziamo per il Suo acquisto e per la Sua fiducia nei nostri prodotti.

I nostri prodotti sono il risultato di anni di ricerca nella progettazione e produzione di attrezzature per piscine e spa. Il nostro obiettivo è fornire un prodotto di qualità che offra prestazioni eccellenti.

Abbiamo dedicato molta attenzione alla compilazione di questo manuale per consentirvi di ottenere il meglio dalla vostra pompa di filtrazione Poolex.

Sehr geehrter Kunde!

wir danken Ihnen für Ihren Kauf und für das Vertrauen, das Sie in unsere Produkte setzen.

Unsere Produkte sind das Ergebnis jahrelanger Forschung im Bereich der Entwicklung und Herstellung von Pool- und Spa-Ausrüstung. Unser Ziel ist es, Ihnen ein Qualitätsprodukt mit überdurchschnittlicher Leistung zu liefern.

Wir haben dieses Handbuch mit größter Sorgfalt zusammengestellt, damit Sie das Beste aus Ihrer Poolex-Filterpumpe herausholen können.

Geachte klant,

Hartelijk dank voor uw aankoop en voor uw vertrouwen in onze producten.

Onze producten zijn het resultaat van jarenlang onderzoek naar het ontwerp en de productie van zwembad- en spa-apparatuur. Het is onze ambitie om u een kwaliteitsproduct te leveren dat uitstekende prestaties levert.

We hebben deze handleiding met de grootste zorg samengesteld zodat u het beste uit uw Poolex-filterpomp kunt halen.

IMPORTANT NOTICE

This guide provides instructions for installing and using this pump. Consult the distributor for any questions regarding this equipment.

For the Installer: This guide contains important information about the safe installation, operation and use of this product. This information must be given to the owner and/or operator of this equipment after installation, or left on or near the pump.

For the user: This manual contains important information that will help you use and maintain this product. Please keep it for future reference.

FAILURE TO FOLLOW ALL INSTRUCTIONS AND WARNINGS MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH. **THIS PUMP SHOULD ONLY BE INSTALLED AND MAINTAINED BY A QUALIFIED PROFESSIONAL FOR POOL MAINTENANCE. INSTALLERS, POOL OPERATORS AND HOMEOWNERS SHOULD READ THESE WARNINGS AND ALL INSTRUCTIONS IN THE USER MANUAL BEFORE USING THIS PUMP. THESE WARNINGS AND THE USER MANUAL SHOULD BE LEFT WITH THE POOL OWNER.**

READ AND FOLLOW ALL INSTRUCTIONS

This is the security alert symbol. When you see this symbol on your system or in this manual, look for one of the following warnings and pay attention to the risk of personal injury.

DANGER - Cautions against hazards that may cause **death** or serious injury if ignored.

CAUTION - Caution against hazards that may cause serious injury or **significant property damage** if ignored.

WARNING - Cautions against hazards that may cause minor injury or property damage if ignored.

NOTE: This indicates special instructions not related to hazards.
Read carefully and follow all safety instructions in this manual and on the equipment. Keep safety labels in good condition; replace them if missing or damaged.

KEEP THESE INSTRUCTIONS IN A SAFE AND ACCESSIBLE PLACE FOR FUTURE REFERENCE.

CONTENTS

1. SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions must always be followed, including:

DANGER - Do not allow children to use this product.

DANGER - This device is not intended for use by persons (including children) with reduced physical, sensory or mental abilities, or a lack of experience and knowledge, unless they have been supervised or instructed by a person responsible for their safety.

DANGER - RISK OF ELECTRIC SHOCK. Connect only to a dedicated **electrical circuit protected by a differential circuit breaker** (DDFT) of 30mA maximum (differential protection). Regularly test its proper functioning. Contact a qualified electrician if you cannot verify that the circuit is protected by differential protection.
To test the DDFT, press the test button. The DDFT must shut down the power. Press the reset button. Power must be restored. If the DDFT does not operate in this manner, it is defective. If the DDFT shuts down the pump without pressing the test button, a ground current flows, indicating the danger of receiving an electrical shock. Do not use this pump. Unplug the pump and have it corrected by a qualified technician before use.

WARNING - This pump is intended for swimming pools but can also be used with spas, if it is mentioned that they comply with this type of pump

CAUTION - The circulation pump must be installed upstream of a filter suitable for its flow rate. Make sure you comply with the flow rates set by your filter, otherwise irreversible damage may occur.

DANGER - Never open the inside of the engine. There is a battery of capacitors that keep a charge of 220-240 VAC even when the unit is off.

DANGER - Before servicing the pump, turn off the pump power by disconnecting the main pump circuit.

CAUTION - The pump is not submersible.

CAUTION - NEVER START THE PUMP IF THE VALVES ARE CLOSED.

CAUTION - The pump can provide high flow rates. Be careful when installing and programming the pump so as not to limit the potential performance of the pump with old or questionable equipment.

NOTE: Standard requirements for electrical connections vary from country to country and municipality to municipality. Install equipment in accordance with NF C15-100 and all applicable local codes and regulations.

DANGER - RISK OF BEING BLOCKED BY SUCTION: Do not approach the main pipe and move away from all suction outlets!
This pump produces high suction levels and creates strong suction at the main drain at the bottom of the water. This suction is so strong that it can trap adults or children underwater if they are near a loose or broken drain or cover.

1. SAFETY INSTRUCTIONS

Using an unapproved anti-vortex BDF (bottom bung) or using the pool or spa when the BDF is missing, cracked or broken may result in body or limb blockage, hair entanglement, evisceration and/or death.

TO MINIMIZE THE RISK OF INJURY DUE TO THE DANGER OF BEING BLOCKED DUE TO ASPIRATION:

- An anti-vortex BDF, approved and correctly installed and fixed according to the standards in force in the country concerned, must be used for each drain.
- Inspect all covers regularly to ensure they are not cracked, damaged or weathered.
- If a BDF is loose, cracked, damaged, broken or missing, replace it with a certified and appropriate BDF.
- Replace drain covers if necessary. Drain covers deteriorate over time due to exposure to sunlight and weather.
- Avoid putting hair, limbs or body in close proximity to a suction cover, pool drain or outlet.
- Disable the suction outlets or reconfigure them into return inputs.

⚠ **CAUTION -** An emergency stop system (switch, disconnect) clearly identified for the pump must be in an easily accessible and visible location.
TO MINIMIZE THE RISK OF INJURY DUE TO THE RISK OF VACUUM BLOCKAGE: Make sure users know where it is and how to use it in an emergency.

For installation of electrical controls on the hardware control panel:

⚠ **WARNING -** Install all electrical controls on the hardware control panel, such as on/off switches, timers and control systems, etc., to allow operation (start, stop or maintenance) of any pump or filter, so that the user does not place any part of his body on or near the pump strainer cover, filter cover or valve closures. This installation must leave sufficient space for the user to move away from the filter and pump during start-up, shutdown or maintenance of the circuit filter.

⚠ **DANGER - DANGEROUS PRESSURE: DO NOT APPROACH PUMP OR FILTER DURING OPERATION**
Circulation systems operate under high pressure. When servicing any part of the circulation system, air may enter the system and be compressed. Compressed air can violently separate the pump housing, filter cover and valves, which can result in serious injury or even death. The filter tank cover and strainer cover must be properly secured to prevent violent dissociation. Stay away from any equipment in the circulation system when starting or starting the pump.

Before servicing the equipment, take note of the filter pressure. Make sure that all controls are set so that the system cannot inadvertently start during maintenance. Turn off the power to the pump. **IMPORTANT: Place the manual filter air trap in the open position and wait until all pressure is removed from the system.**

Before starting the installation, open the filter's manual air trap completely and place all the valves of the installation in the open position to allow water to enter and exit the filter freely. Stay away from any equipment and start the pump.

IMPORTANT: Do not close the filter air trap until all pressure has been removed from the trap and a steady stream of water appears. Observe the filter pressure gauge and make sure that the pressure value does not exceed that indicated before servicing.

1. SAFETY INSTRUCTIONS

General information on the installation

- All work must be performed by a qualified professional and must meet all national, provincial and local standards.

- Install to ensure drainage of compartment for electrical components.

- These instructions contain information on a variety of pump models and therefore some instructions may not apply to a specific model. All models are intended for use in swimming pools. The pump will only function normally if it is properly sized for a given system and installed correctly.

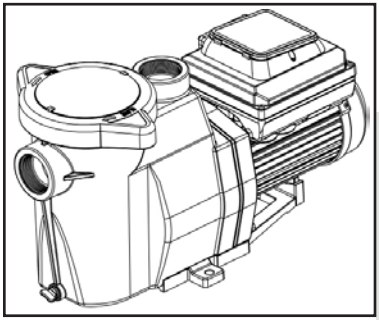
⚠ **CAUTION -** Improperly sized or installed pumps or used in systems other than those for which the pump was designed may result in serious injury or death. These risks may include, but are not limited to, electric shock, fire, flooding, suction blockage, serious injury or property damage caused by a structural failure of the pump or other system component.

⚠ **CAUTION -** If the power cord is damaged, it must be replaced by a qualified person to avoid danger.

2. DESCRIPTION

2.1 Model characteristics

Model	PF-VL15HW
Input voltage	220-240 V ~
Input frequency	Single-phase, 50/60 Hz
Input current	5.5 A
Input power	1300 W
Speed range	450 - 3 450 rpm
Maximum gauge height (m)	22 .5
Protection	IPX4
Threading	1"1/2 x 1"1/2’

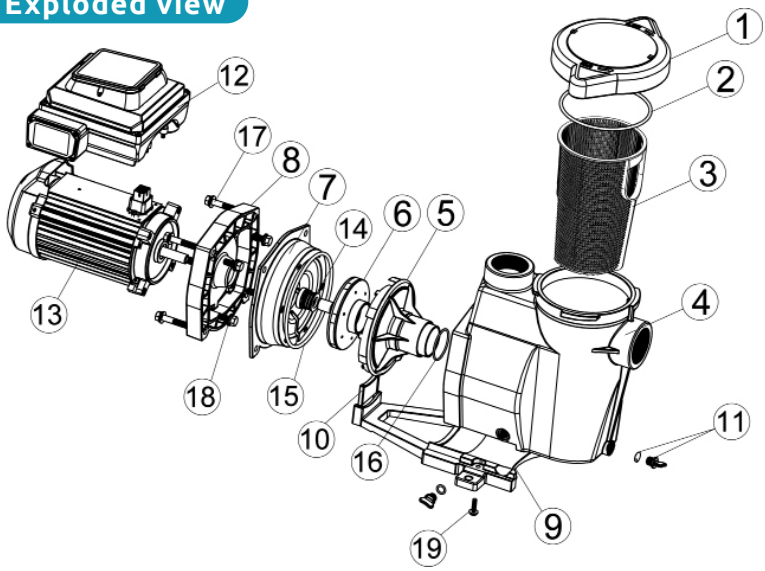


Variable speed pump

Model	PF-VL10PW	PF-VL15PW	PF-VL20PW	PF-VL30PW
Input voltage	220-240 V ~			
Input frequency	Single-phase, 50/60 Hz			
Input current	5.5 A	7A	8A	10A
Input power	1300 W	1500 W	1800 W	2200 W
Speed range	450 - 3 450 rpm			
Maximum gauge height (m)	22.5	23.5	24	25
Protection	IPX4			
Threading	2" x 2" (5.08 cm x 5.08 cm)			

- Compatible pool and salt chemical treatment
- Extremely quiet operation
- Threading of union fittings 1,5’’ and 2’’ according to model for single fittings
- A large pre-filter for optimal cleaning
- Fully enclosed fan cooled (TEFC)
- Hydraulic noise reduction through integration of winding and pump body
- Easy filter basket inspection with clear lid
- Self-priming for quick and easy start up to 2.5m
- Permanent magnet pump
- Stainless steel shaft
- ASI 316 carbon/ceramic mechanical seal

2.2 Exploded view

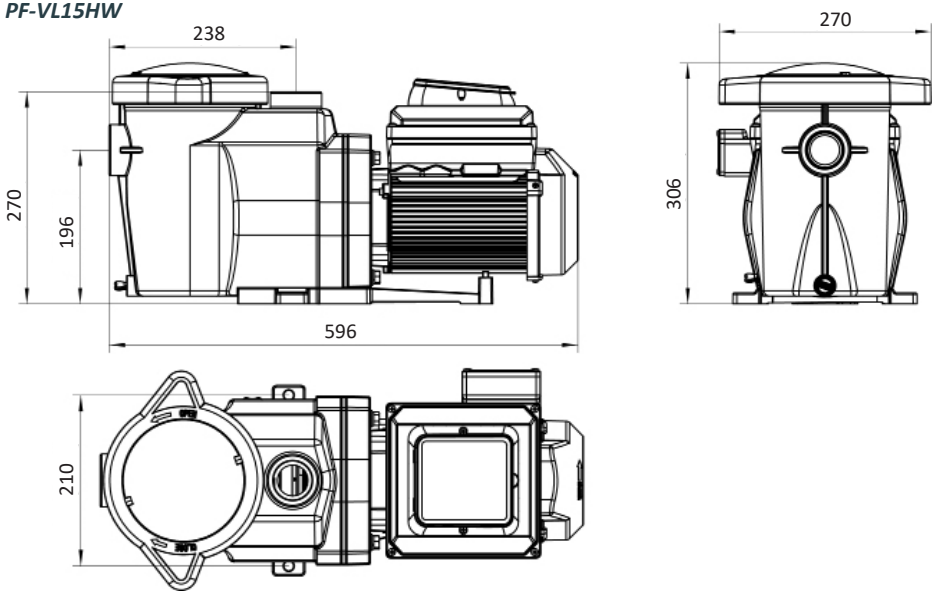


Ref	part N°	Description	Qty.	Ref.	part N°	Description	Qty.
1	PF-FB2010SCK	Strainer Lid Kit	1	12A	PF- FB2010-MD-W	Engine module for PF-VL10P	1
2	PF-FB2010CO	Lid O-ring	1	12B	PF-FB2015-MD-W	Engine module for PF-VL15H and PF-VL15P	1
3	PF-FB2010-B	Basket	1	12C	PF-FB2020-MD-W	Engine module for PF-VL20P	1
4A	PF-FW1515-PH	Pump housing 1.5"*1.5" (3.81 cm x 3.81 cm)	1	12D	PF-FW2030-MD-W	Engine module for PF-VL30P	1
4B	PF-FB2010-PH	Pump housing 2"*2" (5.08 cm x 5.08 cm)	1	13A	PF-FB2010-M	Engine PF-VL15H PF-VL10P	1
5	PF-FB2010-D	Diffuser	1	13B	PF-FB2015-M	Engine PF-VL15P	1
6A	PF-FB2010-IA	Turbine for PF-VL15H and PF-VL10P	1	13C	PF-FB2020-M	Engine PF-VL20P	1
6B	PF-FB2015-IA	Turbine for PF-VL15P	1	13D	PF-FB2030-M	Engine PF-VL30P	1
6C	PF-FB2020-IA	Turbine for PF-VL20P	1	14	PF-FB2010-SA	Gasket Assembly	1
6D	PF-FB2030-IA	Turbine for PF-VL30P	1	15	PF-FB2010-SPO	O-ring of the sealing plate	1
7	PF-FB2010-SP	Sealing plate	1	16	PF-FB2010-DO	Diffuser O-ring	1
8	PF-FB2010-MP	Mounting plate	1	17	PF-FB2010-HCS	3/8-16*2 housing pan head screw	4
9	PF-FB2010-MF	Fixing foot	1	18	PF-FB2010-MCS	Motor cover screws 3/8-16*1	4
10	PF-FB2010-SF	Support foot	1	19	PF-FB2010-MPS	Screws for fixing the leg	2
11	PF-FB2010-DPG	Drain plug with seal	2				

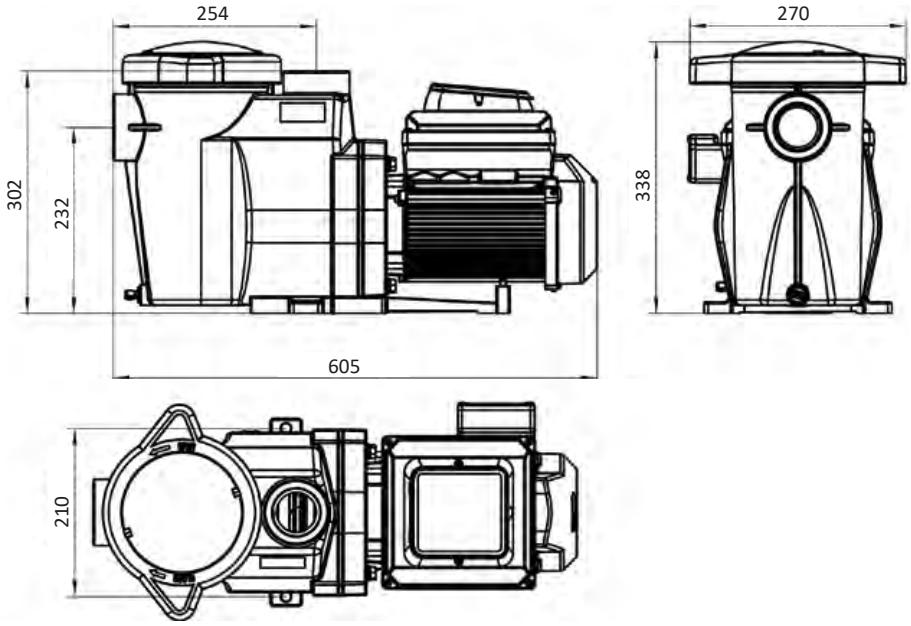
2.3 Pump dimensions

Dimensions in mm

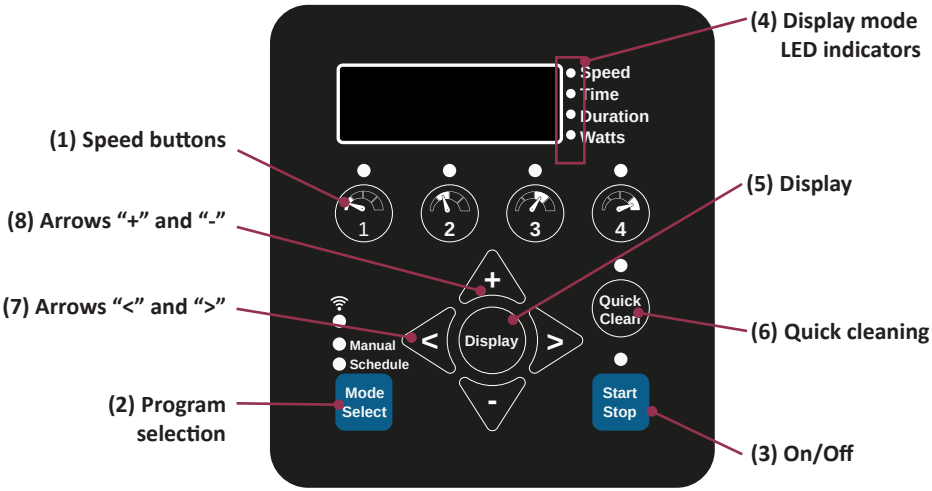
PF-VL15HW



PF-VL10PW / PF-VL15PW / PF-VL20PW / PF-VL30PW



3. CONTROL PANEL



WARNING - If the variable speed pump motor is energized, pressing one of the following buttons mentioned in this section may cause the motor to start. Failure to do so may result in injury or equipment damage. Be careful not to start if valves are closed.

3.1 Using the Control Keyboard

1. Speed buttons - Used to select the desired speed. The LED above the speed buttons lights up when a given speed is selected or running. A flashing LED indicates that the speed program is activated.

2. Program selection button - Manual, wifi or programming choice.

3. On/Off Button - Used to start and stop the pump. When the pump is stopped and the LED is not lit, the pump is unable to operate with any type of input.

4. LED Display Mode Indicators - A lit LED indicates what information is displayed on the screen at a specific time. A flashing LED indicates that the parameter is being modified.

5. Display button - Used to switch between the different display modes available. This button is also used to set the clock to 24 hours and screen resolution.

6. Quick Clean Button - Used to run a set speed and time for quick clean. When the LED is on, the Quick Clean program is active.

7. Arrows "<" and ">" - Choose between a 12 or 24 hour format

8. Arrows "+" and "-" - Used to adjust pump settings on the screen. The "+" arrow increases the value of a given setting, while the "-" arrow decreases the value of a given setting. Press and hold any of the arrow buttons to increase or decrease changes faster.

3.2 Controller features

- Simple user interface
- IPX4 certified housing resistant to UV and rain
- Scheduling of customized schedules
- Adjustable priming mode
- Programmable quick clean mode
- Alarm diagnostics display.
- Active power factor correction
- Accepts 220-240V ~ 50/60Hz input power
- Automatic power limiting protection circuit
- Clock maintained for one week in case of power failure

3.3 Controller function

The variable speed pump uses a higher efficiency variable speed motor that offers great program flexibility in terms of adjustable motor speed and duration. The pump is designed to operate at the lowest speeds necessary to maintain a healthy environment, minimizing energy consumption. The size of the pool, the presence of additional aquatic facilities, chemicals used to maintain sanitary conditions and local environmental factors will affect the optimal programming required to maximize energy savings.

DANGER - This pump is intended for use with a nominal voltage of 220-240V AC 50/60Hz, and ONLY for use as a pool pump. Connecting to an incorrect voltage or using another system can damage equipment or cause personal injury.

The integrated electronic interface controls the speed settings as well as the running time. The pump can operate at speeds between 450 and 3450 rpm and will operate in the voltage range of 220-240 V at an input frequency of 50 or 60 Hz. Customizing the program may require a number of trial and error to determine the most satisfactory parameters based on the conditions. In most cases, setting the pump to the lowest speed over a long period of time is the best strategy to minimize energy consumption. However, conditions may require running the pump at a higher speed for some time each day to maintain adequate filtration in order to achieve satisfactory sanitation.

NOTE: Optimize the pump according to the special conditions of the pool. Specific conditions such as pool size, other devices, features and environmental factors can all have an impact on optimal settings.

4. INSTALLATION

Only a qualified professional is allowed to install the variable speed pump. For more information on installation and safety, see «Safety Instructions».

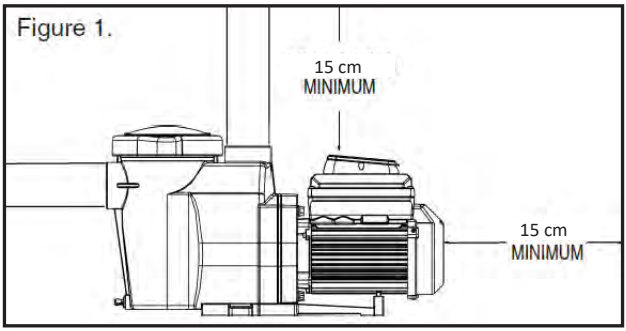
4.1 Location

NOTE: Make sure the pump is connected to a protected socket and connected to the electrical panel.

Ensure that the pump location meets the following requirements:

1. Install the pump as close to the pool or spa as possible. To reduce losses, use short, direct suction and return hoses.
2. Install the pump according to NF C15-100.
3. Install the pump to a maximum of 2.5 meters above the water level.
4. Install the pump in a well-ventilated area protected from excessive humidity in a technical room.
5. Install the pump with a rear clearance of at least 15 cm so that the engine can be properly ventilated and removed easily for maintenance and repairs. See **Figure 1.** Without this rear clearance, the pump could overheat, causing a fault or even damage to the control module electronics.

Figure 1.

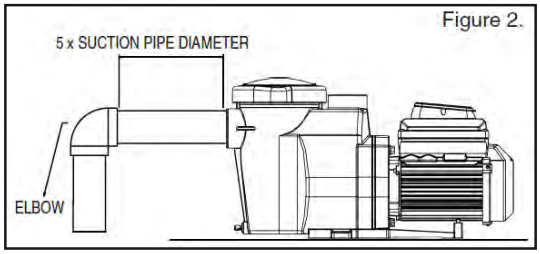


4.2 Piping

To improve the hydraulic installation of the pool:

- The diameter of the piping on the suction side of the pump must be the same or greater than that of the return pipe.
- The piping on the pump suction side should be as short as possible.
- Install valves on the pump suction and return lines so that the pump can be isolated during maintenance and cleaning operations.
- Do NOT install a valve, elbow or tee on the suction line within five (5) times the diameter of the suction line upstream of the pump. See **Figure 2.**
  Example: A 6.3 cm (2.5") diameter hose requires 31.8 cm (12.5") of length before the pump inlet. This facilitates priming the pump.

Figure 2.



4.3 Fittings and valves

1. Do not install the 90° elbows directly at the pump inlet or outlet.
2. Submerged suction systems must have valves installed on the suction and discharge lines for maintenance. However, the suction valve should not be located less than five times the diameter of the suction line, as described in this section.
3. Use a check valve in the discharge line when using this pump for any situation where plumbing height is high downstream of the pump.
4. Be sure to install check valves when the plumbing is parallel to another pump. This avoids a reverse rotation of the turbine and engine.

4.4 Electrical specifications

- Install all equipment in accordance with NF C15-100 and all applicable local codes and regulations.
- An automatic power cut-off protection device must be installed in the fixed wiring with a ground connection to prevent electrocution.

4. INSTALLATION

DANGER - RISK OF ELECTRIC OR ELECTRIC SHOCK.

The variable speed pump must be installed by a qualified professional in accordance with NF C15-100. An improperly designed electrical installation can result in serious personal injury or death as a result of an electrical shock, and can also cause property damage.

Always disconnect the pump power supply before servicing the pump. Read all maintenance instructions before working on the pump.

4.5 Overview and installation of wiring

CAUTION - Power must be turned off when installing, servicing or repairing electrical components. Follow all warnings on existing equipment, on the pump and in these installation instructions.

The variable speed pump must be installed by a qualified professional in accordance with NF C15-100. The pump accepts input power in single phase 220 V-240 V, 50 or 60 Hz. The connections must be permanently grounded (see Figure 3) in accordance with NF C15-100.

Make sure all circuit breakers and electrical switches are off before wiring the motor. Always wait five (5) minutes after disconnecting the pump power before opening or repairing the pump.

The Variline pump is delivered pre-wired.

The pump must be permanently connected to an outlet with a suitable curved C circuit breaker and protected by a 30mA differential circuit breaker.

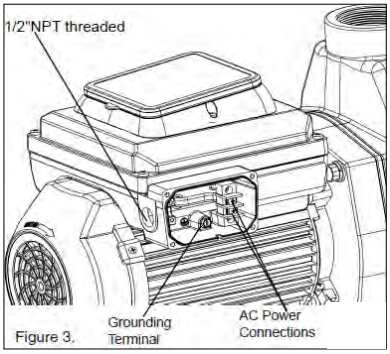


Figure 3.

Internal view of turnouts

5. PUMP OPERATION

WARNING - NEVER START THE PUMP WITHOUT WATER!

5.1 Clock setting

When first installing the pump, it is necessary to set the clock, otherwise the pump will not work properly. Any user-defined daily schedule must be based on a precise time setting.

EN

To set the clock:

Setting the time is only possible during the 5 seconds of blinking. The pump must be disconnected and it is necessary to ensure that the panel lights are all turned off. It must then be reconnected to enter the menu and be able to perform step 1.

1. Use the arrows **(<)** and **(>)** to choose between 12 or 24 hour formats.
2. When the pump is connected, the **TIME** light flashes. To enter the clock settings, press the **Display button.**
3. Use the **(+)** and **(-)** arrows to set the exact time. In the 12-hour format, AM/PM is displayed in the lower left corner.
4. Press **Display** to exit the Clock Setting menu. The clock is now set.

In case of power failure, the player keeps the clock setting in memory for up to one week. If the power failure lasts more than a week, the clock must be reset to the correct time.

NOTE: When the pump is turned back on after a prolonged failure (more than a week), the clock automatically sets to the start time of Speed 1, flashes and moves to the next step. The pump will also run according to the schedule associated with that start time.

To set the clock automatically : See section “6.1 Wifi function”, page 49.

Figure 4 : Clock setting

5.2 Using the default schedule

Default schedule is designed to ensure sufficient daily renewal to serve a typical pool. See **Table 2** for default schedule.

	Duration (hours)	Speed (rpm)
SPEED 1	2	3000
SPEED 2	10	1500
SPEED 3	2	2500
SPEED 4	4	1000

Table 2: Default Schedule

SPEED 1 is set to start at 0800 and run at 3000 rpm for 2 hours. When SPEED 1 is complete, the pump immediately begins to operate at SPEED 2 by default. SPEED 2 is set to 1500 rpm by default and operates for 10 hours. When SPEED 2 is complete, the pump will operate at 2500 rpm for two hours at SPEED 3.
After 18 hours of operation and after completing operation at SPEED 4, the pump will enter the stationary/pause state for the next 6 hours. The pump restarts at 8:00 the next morning and resumes the default program. The pump will continue to operate in this way until a custom schedule is programmed in the player by the user. Note:For the pump to work, press the Start/ Stop button and the LED is lit.

Speed 1 and priming

The installer must adjust the priming speed so that it is sufficient to start the pump from a new installation, but not to the point of causing significant energy loss. The time it takes for the pump to successfully start can vary depending on local environmental conditions such as water temperature, atmospheric pressure and water level of your pool. All of these should be considered when setting the priming speed, but in most cases the pump will not need to run at 3,450 rpm to prime properly.

Please test and verify the chosen priming speeds more than once, allowing water to flow from the system between each test. Turn on the pump and switch to manual mode to test priming using Speed 1. Note how long it took for the water to fill the pump housing, then stop the pump. Restart the pump to set SPEED 1/Prime Time.

5.3 Personalized schedules and quick cleaning

To customize the program of operation of your variable speed pump, the pump must be stopped. Make sure the ON/OFF LED is not lit..

Programming a personalized schedule:

NOTE: When programming, the indicator light next to the parameter ("**Speed**", "**Time**" and "**Duration**") that you set flashes.

1. Stop the pump if it is running by pressing the **Start/Stop** button.
2. Press the "**1**" button. The LED above the selected SPEED starts flashing and the "**Speed**" parameter LED flashes while editing. See **Figure 5**.

Figure 5 : Speed setting

3. Use the **"+"** and **"-"** arrows to set the speed in rpm for SPEED 1.

NOTE: Speed is increased or decreased by 10 rpm intervals.

4. Press the "**1**" key again and the display changes to the SPEED 1 start time. The "**Time**" LED starts flashing. See **Figure 6**.

Figure 6 : Setting the start time

5. Use the **"+"** and **"-"** arrows to set the daily start time for SPEED 1.

6. Press the “1” button again and the display changes to the duration of SPEED 1. The LED of the “Duration” parameter begins to flash. See **Figure 7**.
7. Use the **“+”** and **“-”** arrows to set the duration of SPEED 1 in hours and minutes

Figure 7 : Time adjustment

NOTE: THE TIME SETTING IS SET IN 15-MINUTE INTERVALS.

8. By pressing the “**1**” button, you continue to scroll through these settings, but changes are immediately saved as they are adjusted.
9. Press the “**2**” button. The LED above SPEED 2 will flash and the corresponding parameter LED will flash while editing.
10. Use the **“+”** and **“-”** arrows to set the SPEED 2 rpm speed.
11. Press the “**2**” key again and the display changes to SPEED 2.

NOTE: SPEEDS 2 and 3 do not have a start time, as they begin their duration immediately after the end of the previous SPEED.

12. Use the **“+”** and **“-”** arrows to set the SPEED 2 duration in hours and minutes.
13. Repeat steps 9-12 to program SPEED 3-4 and QUICK CLEAN.

NOTE: The time allowed for SPEED 3 is limited to the time remaining in a 24-hour day. During the remaining time slots of the day that are not programmed to SPEEDS 1 to 4, the pump will remain stationary.

SPEED 1 + SPEED 2 + SPEED 3 + SPEED 4 < 24 hours

14. Press the **Start/Stop** button and make sure the LED is on. The pump is now running and will run the custom program programmed by the user.

NOTE: If the pump has been stopped using the **Start/Stop** button, the pump will not work until the **Start/Stop** button has been reset to restart the pump. If the **Start/Stop** button LED is lit, the pump is powered on and running according to the set schedule.

5.4 Priorities for Speed Programs

For time settings, SPEEDS are prioritized as follows: SPEED 1 -> SPEED 2 -> SPEED 3 -> SPEED 4. SPEED 1 has the highest priority, while SPEED 4 has the lowest priority. **The box will not allow a user to schedule a schedule with a duration of more than 24 hours.** When the 24th hour of the duration is programmed, it takes time for the durations of the lowest priority speeds to add them to that of the SPEED being set.

Example :

Startup program (before adjustment)
SPEED duration 1 = 18 hours
SPEED duration 2 = 2 hours
SPEED duration 3 = 2 hours

If the user reprograms SPEED 1 for 22 hours, SPEED 2 (lower priority speed) will automatically adjust to 1 hour and SPEED 4 (lower priority speed) to 0 hour.

End time (after adjustment)
SPEED duration 1 = 22 hours
SPEED duration 2 = 1 hour
SPEED duration 3 = 1 hour
SPEED duration 4 = 0 hour

5.5 Operation of the pump on

⚠ **WARNING -** If the pump is energized, pressing one of the following buttons mentioned in this section may cause the engine to start. Failure to do so may result in injury or damage to equipment.

Press the Display key to scroll through the following settings.

- **Speed -** running speed
- **Time -** current time of day
- **Duration -** time remaining at current execution speed
- **Watts -** quantity of watts currently consumed

While the pump is running, press one of the speed buttons ("**1**", "**2**", "**3**", "**4**","**Quick Clean**") to pause it temporarily. The pump will work according to the speed and time programmed for the selected key. Once this cycle is complete, it will default back to the appropriate cycle in the scheduled schedule.

NOTE: If you set the program speeds while the pump is running, the set speed will run for the rest of the current time, but the settings will not be saved

5.6 Priming function

The installer must adjust the priming speed so that it is sufficient to prime the pump from a new installation. The time it takes for the pump to prime may vary depending on local environmental conditions such as water temperature, atmospheric pressure and pool water level. All these elements must be taken into account when setting the priming speed.

Fill the pump body with water before starting priming.

This feature is disabled by default. To enable the boot program:

- Make sure the pump is in STOP mode by pressing the START/STOP button until the red light on top no longer illuminates.
- Press the DISPLAY button for 6 seconds to access the boot settings.
- In this menu, use the arrows (<) and (>) to switch between the options.
- The default boot speed is 3400 rpm. Use the (+) and (-) arrows to set this speed between 2000 and 3450 rpm.
- The default duration is 0 minutes, which means this feature is disabled. Set more than 0 minutes to activate this feature.
- Use the (+) and (-) buttons to set the desired time between 0 and 10 minutes.
- Press the DISPLAY button for 2 seconds to save the settings.

5.7 Freeze protection program: active wintering

⚠ **WARNING -** If this function is activated, be sure to open the suction and discharge valves and that the water level in the basin is sufficient.

⚠ **WARNING -** This function allows active overwintering. In case of passive overwintering, disable this function or disconnect the pump.

This pump is equipped with an automatic frost protection mode. Indeed, if the ambient air reaches the temperature of protection against frost, the pump starts and ensures a continuous and moderate flow to protect the equipment of the pool.

This feature is disabled by default. To enable frost protection:

- Make sure the pump is in STOP mode by pressing the START/STOP button until the red light on top no longer illuminates.
- Press and hold the (+) and (-) keys simultaneously to access the freeze protection settings.
- In this menu, use the arrows (<) and (>) to switch between the options.
- The default frost protection speed is 1000 rpm. Use the (+) and (-) arrows to set this speed between 750 and 3450 rpm.
- Then use the (+) and (-) buttons to set the time in hours that the pump is running once the frost protection is triggered.
- Set the duration to 0 to disable frost protection.
- Use the (+) and (-) buttons to set the activation temperature between 4°C and 10°C.
- The MODE SELECT button toggles between Fahrenheit and Celsius.

6. APPLICATION

6.1 Wifi function

You can also control your pump remotely using the dedicated Poolex application and built-in Wi-Fi.
Go to your store to download it. You can also scan the QR code for your interface (iOS or Android) opposite.
To pair your pump with WiFi, follow these steps:

1. Check that the pump is switched off.
2. Press «Display» for 5 seconds. The wifi LED will flash red.
3. In the «POOLEX» application, click to add a new device.
   During pairing, the wifi LED remains red.
4. When pairing has worked, the wifi LED will light up green.

Pairing automatically synchronises the clock.

iOS :

Android :

EN

6.2 Choice of operating mode

1. Stop the pump before changing modes.
2. Position the valves as required.
3. Click on the icon to display the operating modes menu.
4. Click on the desired mode.

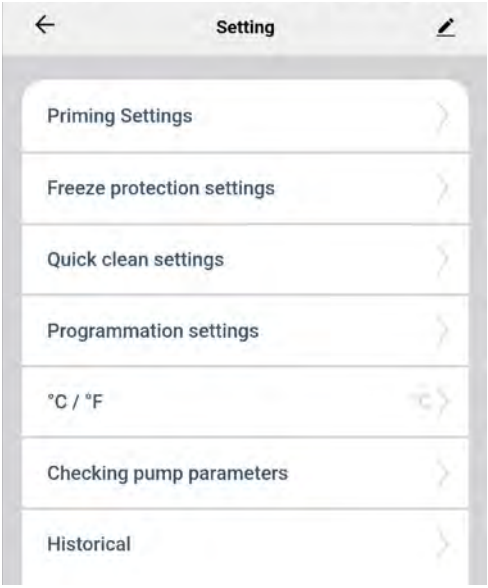
Manuel Allows you to set the pump manually: ON/OFF and speed selection
To set the speed, use the arrows or the blue rounded cursor.

Quick Clean
1. Allows you to backwash
2. Skims the surface of the pool with high power in a short space of time.

Scheduled Used to programme pump operation. This is the preferred mode. It requires a minimum amount of programming to be saved.

6.3 Setting

On the Home screen, when the device is switched off, press the icon to access the settings menu.



Priming settings

Freeze protection settings

Quick clean settings

Programmation settings

Unit settings (°C or °F)

Checking parameters

History

Priming parameters

From the priming parameters menu, you can enable / disable the priming function, as well as adjust the priming speed and time.
Refer to «5.6 Priming function», page 48 for instructions on how to do this.

Freeze protection settings

From the freeze protection settings menu, you can activate/deactivate the freeze protection function, as well as setting the circulation speed and the activation temperature for freeze protection mode.

When anti-freeze mode is activated, the icon is displayed.
Refer to «5.7 Freeze protection program: active wintering», page 48 for instructions on how to do this.

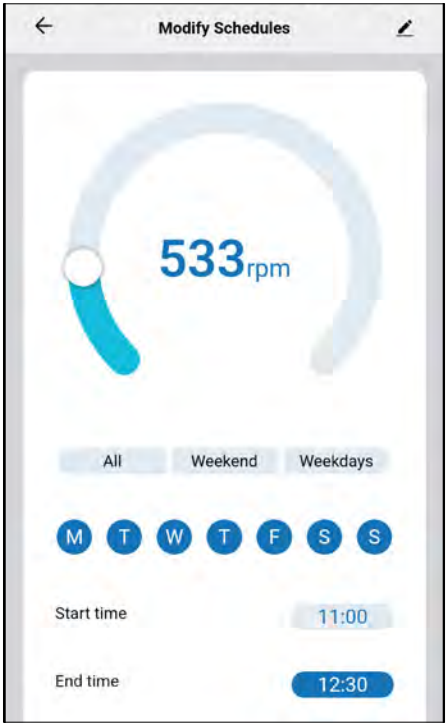
Quick clean settings

From the quick clean settings menu, you can set the circulation speed and the activation time for the quick clean mode.

Programmation settings

From the programmation settings menu, you can create weekly or daily programmes and choose to activate/deactivate them at any time.
Each programme is made up of several parameters:

- adjusting the circulation speed,
- selecting the days on which the programme is to be applied
- setting the programme start and stop times.



Unit settings (°C or °F)

You can choose the temperature units from this menu: you can choose between degrees Celsius (°C) and degrees Fahrenheit (°F).

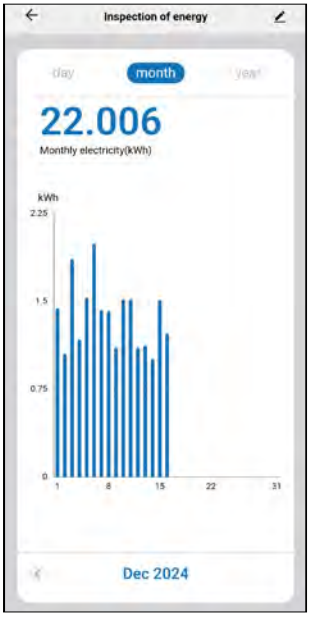
Checking parameters

This menu is used to check pump parameters in real time:

- supply voltage (in V)
- current drawn (in A)
- the power consumed (in W)
- pump rotation speed (in rpm)
- air temperature
- error history.

History

The history enables you to track actual consumption (in kWh) over the course of days, months and years.



7. MAINTENANCE

WARNING - DO NOT open the pre-filter cover if the variable speed pump does not prime or the pump has operated without water in the filter basket. Pumps used in these circumstances may present an increase in steam pressure and contain hot hot water. Opening the pump may result in serious injury. To avoid any risk of injury, make sure the suction and discharge valves are open and the screen temperature is cold to the touch, then open with extreme caution.

WARNING - To avoid damage to the pump and for proper operation of the system, regularly clean the pump basket and skimmer baskets.

7.1 Basket of the pump prefilter

The pump prefilter basket (or “filter basket”, “pump filter basket”) is located in front of the turbine. Inside the chamber is the basket that must be kept clean of leaves and debris at all times. Observe the basket through the “transparent lid” to check for leaves and debris.

Regardless of how long it takes to clean the filter, it is very important to visually inspect the basket at least once a week.

7.2 Cleaning the pump pre-filter basket

1. Press the Start/Stop button to stop the pump and stop the pump at the circuit breaker.
2. Release the pressure in the system by letting the water cool.
3. Gently tap the locking ring counterclockwise to remove the locking ring and cover.
4. Remove debris and rinse the basket. Replace the basket if it is cracked.
5. Return the basket to the case. Make sure to align the notch at the bottom of the basket with the rib at the bottom of the scroll.
6. Fill the pump basket and volute to the inlet with water.
7. Clean the cover, O-ring and sealing surface of the pump basket. Note: It is important to keep the lid O-ring clean and well lubricated.
8. Reinstall the lid by placing the lid on the basket. Make sure the lid O-ring is properly placed. Place the locking ring and cover on the pump and turn clockwise until the handles are horizontal.
9. Turn on the home circuit breaker. Set the clock to the correct time again, if necessary.
10. Start the pump.
11. Open the manual air trap on top of the filter.
12. Purge the filter air until a steady stream of water comes out. Close the manual air purge.

7. MAINTENANCE

CAUTION - THIS SYSTEM OPERATES UNDER HIGH PRESSURE. When servicing any part of the circulation system (e.g. locking ring, pump, filter, valves, etc.), air may enter the system and be compressed. Compressed air can cause the lid to separate, which can cause serious injury, death or property damage. To avoid this potential risk, follow the instructions above.

7.3 Winter preparation: passive wintering

It is your responsibility to determine when freezing conditions may occur. If freezing conditions are anticipated, take the following steps to reduce the risk of frost damage. Frost damage is not covered by the warranty. To avoid frost damage, follow these steps:

1. Press the Start/Stop button to stop the pump and turn off the power supply from the pump to the circuit breaker.
2. Drain the water from the pump housing by unscrewing the two drain plugs from the pump housing. Store the plug plugs in the pump basket.
3. Cover the engine to protect it from rain, snow and ice.

NOTE: Do not wrap the engine with plastic or other airtight materials during winter storage. The engine may be covered during a storm, winter storage, etc., but never during operation or waiting for operation.

NOTE: In areas where the climate is mild and temporary freezing conditions may occur, operate your filtration equipment overnight in driver mode to prevent freezing.

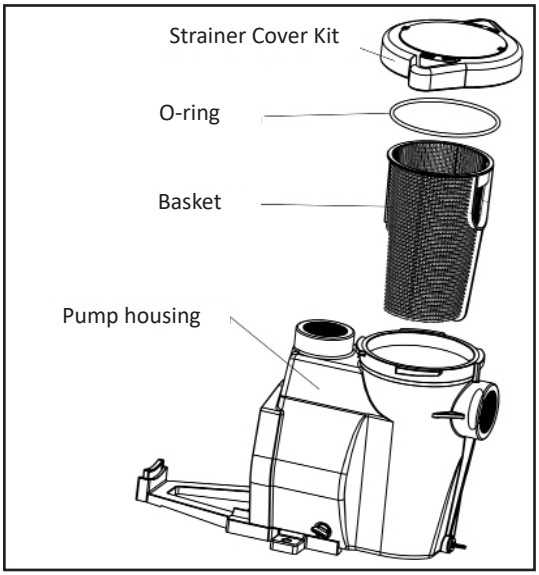


Figure 8 : Strainer assembly

8. TROUBLESHOOTING

⚠ **CAUTION -** Always disconnect power from the variable speed pump to the circuit breaker and disconnect the power cable before servicing the pump. Failure to do so may result in death or serious injury to maintenance personnel, users or others due to the danger of a potential electric shock. Read all maintenance instructions before working on the pump.

⚠ **CAUTION -** DO NOT open the pre-filter if the pump does not prime or if the pump ran without water in the basket. Pumps running in these circumstances, the steam pressure can accumulate and contain hot hot water burning. Opening the pump may result in serious injury. To avoid any risk of injury, ensure that the suction and exhaust valves are open and the pre-filter is cold to the touch, then open with extreme caution.

⚠ **WARNING -** Be careful not to scratch or damage polished shaft sealing surfaces. The seal will leak if surfaces are damaged. The polished and superimposed surfaces of the gasket may be damaged if not handled with care.

8.1 Maintenance of the electric motor

Heat protection

1. Protect the engine from the sun in a well-ventilated technical room.
2. Any enclosure must be well ventilated to prevent overheating.
3. Provide sufficient cross-sectional ventilation.

Dirt protection

1. Protect against any foreign matter.
2. Do not store (or spill) chemicals on or near the engine.
3. Avoid sweeping or waving dust near the engine while it is running.
4. If an engine has been damaged by dirt, this may void the engine warranty.
5. Clean the cover and locking ring, O-ring and sealing surface of the pump housing.

Moisture protection

1. Protect against splashing or spray water.
2. Protect from extreme weather such as flooding.
3. If the internal parts of the engine are wet, let them dry before use. Do not let the pump run if it has been flooded.
4. If an engine has been damaged by water, this may void the engine warranty.

⚠ **CAUTION - DO NOT RUN THE PUMP DRY.** If the pump runs dry, the mechanical seal will be damaged and the pump will start to leak. If this occurs, the damaged gasket must be replaced. ALWAYS maintain adequate water level. If the water level drops below the suction port, the pump will draw air through the suction port, thus losing priming and running the dry pump, which will damage the seal. Continued operation in this manner could result in a loss of pressure that would damage the pump body, turbine and mechanical seal. This may cause property damage, personal injury and void the warranty.

8.2 Restart instructions

If the variable speed pump is installed below the pool water level, close the return and suction lines before opening the pump filtration basket. Make sure to reopen the valves before putting them into service.

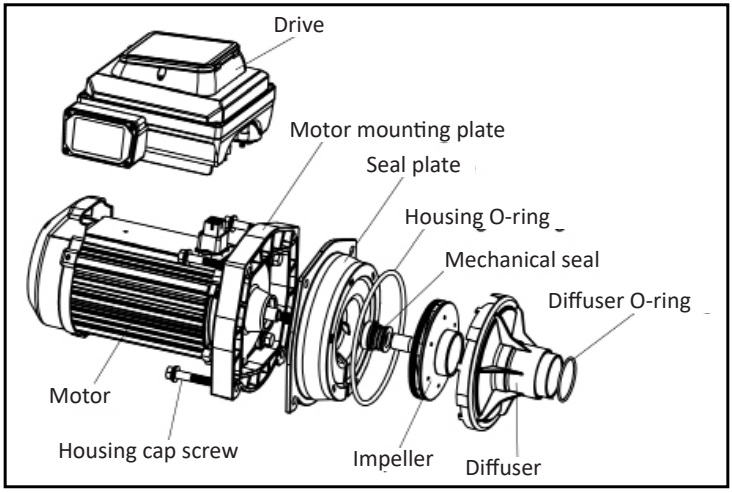
Pump priming

The pump prefilter basket must be filled with water before starting the pump again. Follow these steps to prime the pump:

1. Remove the pump cover locking ring. Remove the pump cover.
2. Fill the pump pre-filter with water.
3. Reassemble the pump cover and locking ring on the pre-filter. The pump can now be primed.
4. Turn on the pump.
5. Open the filter air trap and stay away from the filter.
6. Press the On/Off key on the player keyboard. If the pump is programmed to run at a given time, it will start at that time.

NOTE: If the pump is not programmed to start, press a Speed button to initiate a manual control that will start the pump.

7. When water comes out of the air trap, close the valve. The system must now be free of air and water to and from the pool.



9. PROBLEM SOLVING

CAUTION - The diagnosis of certain indicators may require work to be carried out on components supplied with electricity or in their immediate vicinity. Contact with electricity can cause death, personal injury or damage to property. When troubleshooting the pump, electrical diagnostics must be carried out by an approved professional.

9.1 Troubleshooting and fault resolution

Problems	Possible causes	Corrective measures
Pump failure.	1/ Pump does not prime - Air leak or too much air. 2/ Pump does not prime - Not enough water. 3/ The pump seal is blocked. 4/ The pump filter seal is faulty.	1/ Check the suction pipework and suction valve glands. Attach the cover to the pump strainer basket and make sure the cover gasket is in place. Check the water level to make sure there is no air in the skimmer. 2/ Make sure that the suction pipes, pump, strainer and pump volute are full of water. Make sure the valve in the suction line is working and opens (some systems do not have a valve). Check the water level to make sure there is water in the skimmer. 3/ Clean the pump strainer basket. 4/ Replace the seal.
Reduced capacity and/ or head.	1/ Air pockets or leaks in suction pipe. 2/ Turbine blocked. 3/ Pump basket clogged.	1/ Check the suction pipework and suction valve glands. Attach the cover to the pump strainer basket and make sure the cover gasket is in place. Check the water level to make sure there is no air in the skimmer. 2/ Switch off the electrical supply to the pump. Clean the debris from the impeller. If the debris cannot be removed, follow these steps: 1. Remove the anti-torsion bolt and O-ring from the left-hand thread. 2. Remove, clean and reinstall the impeller. 3/ Clean the suction siphon.
Pump does not start.	1/ The mains power supply has been cut off. 2/ The pump shaft is blocked. 3/ The pump shaft is damaged.	1/ Replace the fuse, reset the earth leakage circuit breaker. Tighten the power cable connections. 2/ Check that the pump can turn by hand and remove anything that could block it. 3/ Replace the pump.
Pump runs then stops.	1/ OVERHEATING problem 2/ OVERCURRENT problem	1/ Check that the rear of the pump is free of dirt and debris. Use compressed air to clean. 2/ The pump will restart automatically after one (1) minute.

9. PROBLEM SOLVING

Problems	Possible causes	Corrective measures
Pump is noisy.	1/ Debris in contact with the fan.	1/ Check that the rear of the pump is free of dirt and debris. Use compressed air to clean.
	2/ Debris in strainer basket	2/ Clean the strainer basket.
	3/ Loose fasteners	3/ Check that the pump mounting bolts are tight.
Pump running without flow.	1/ Turbine is loose	1/ Check that the pump is running by looking at the fan at the back of the variable speed pump. If so, check that the pump impeller is correctly installed.
	2/ Air leak	2/ Check the pipe connections and make sure they are tight.
	3/ Blocked or narrow pipework	3/ Check that there is no obstruction in the strainer or in the suction side pipework. Check that the drain pipework is not obstructed, including if the valve is partially closed or if the pool filter is dirty.

9.2 Errors and alarms

If an alarm is triggered, the meter's LCD screen will display the error code text and the variable speed pump will stop running. Switch off the power to the pump and wait until all the LEDs on the keypad have gone out. At this point, reconnect the power to the pump. If the error has not been corrected, appropriate troubleshooting will be required. Use the error description table below to begin troubleshooting.

Error code	Description	Error code	Description
E-01	Inverter protection	**E-09**	Motor overload
E-02	Overcurrent during motor acceleration	**E-10**	Inverter overload
E-03	Overcurrent during motor deceleration	**E-11**	Input phase loss
E-04	Overcurrent at constant speed	**E-12**	Output phase failure
E-05	Motor acceleration overvoltage	**E-14**	Module overheating
E-06	Overvoltage during motor deceleration	**E-16**	Communication error
E-07	Overvoltage at constant speed	**E-17**	Current detection fault
E-08	Voltage fault	**E-24**	Inverter hardware fault

E-16- **The communication link between the HMI and the motor control has been lost:** Check the sheathed wire at the back of the keypad inside the drive's top cover. Check that the 5-pin connector is correctly plugged into the socket and that the cable is not damaged.

E-01,02,03,04,05,06,07,09,10,24 - **Internal errors:** If this error is displayed repeatedly, there may be a problem with the pump's rotating assembly. Please dismantle the pump and check whether there is a problem with the impeller or the mechanical seal.

E-08- **Absolute AC undervoltage detected:** This indicates that the supply voltage has fallen below the 200 V operating range. This may be due to a normal voltage variation which will disappear on its own. Otherwise, there could be an overvoltage caused by poor installation or inadequate supply voltage.

E-14- **Module overheating:** This may be caused by a high ambient temperature or an overload**.**

10. WARRANTY

Poolstar warrants to the original owner that the Poolex Variline will be free from defects in materials and workmanship for a period of **three (3) years.**

Wearing parts (O-rings, diffuser, impeller, basket, mechanical seal) are guaranteed for **six (6) months.**

The warranty takes effect on the date of the first invoice.

The guarantee does not apply in the following cases:

- Malfunction or damage resulting from installation, use or repair that does not comply with the safety instructions.
- Malfunction or damage resulting from a chemical agent unsuitable for the pool.
- Malfunction or damage resulting from conditions unsuitable for the use of the equipment.
- Damage resulting from negligence, accident or force majeure.
- Malfunction or damage resulting from the use of unauthorised accessories.

Repairs carried out during the warranty period must be approved before being carried out by an authorised technician. The warranty is void if the equipment is repaired by a person not authorised by Poolstar.
Guaranteed parts will be replaced or repaired at Poolstar's discretion. Defective parts must be returned to our factory before the end of the warranty period to be covered by the warranty. The warranty does not cover labour charges or unauthorized replacements. The return of the defective part is not covered by the warranty.

Dear Sir/Madam

Do you have a question? Do you have a problem? Or simply register your guarantee, find us on our website:

https://assistance.poolstar.fr/

We thank you for your confidence
and we wish you an excellent swim.

Your details may be processed in accordance with the Data Protection Act of 6 January 1978 and will not be disclosed to anyone else.

Courbes de performance de la pompe pour des vitesses préréglées
Hauteur dynamique totale selon débit volumétrique

Pump performance curves for preset speeds
Total dynamic head depending on volumetric flow rate

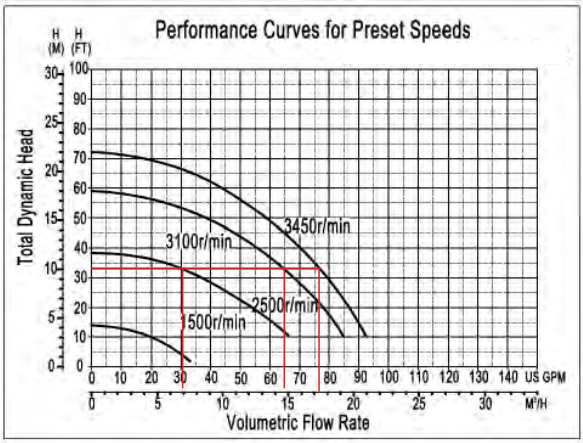
Curvas de rendimiento de la bomba para velocidades preestablecidas
Carga dinámica total en función del caudal

Curve di prestazione della pompa per velocità predefinite
Prevalenza dinamica totale in funzione della portata

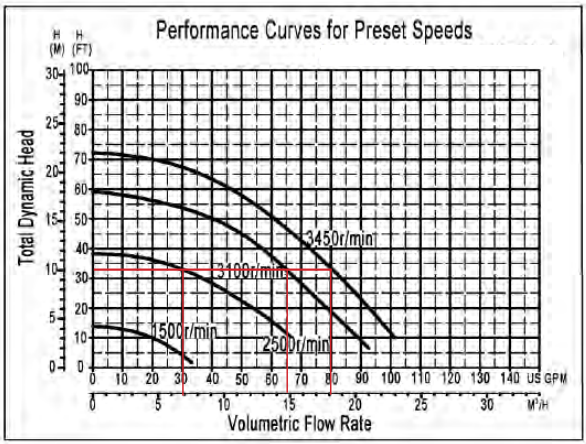
Pumpenleistungskurven für voreingestellte Geschwindigkeiten
Dynamische Gesamthöhe nach Volumenstrom

Pompvermogenscurves voor vooraf ingestelde snelheden
Totale dynamische opvoerhoogte afhankelijk van de volumestroom

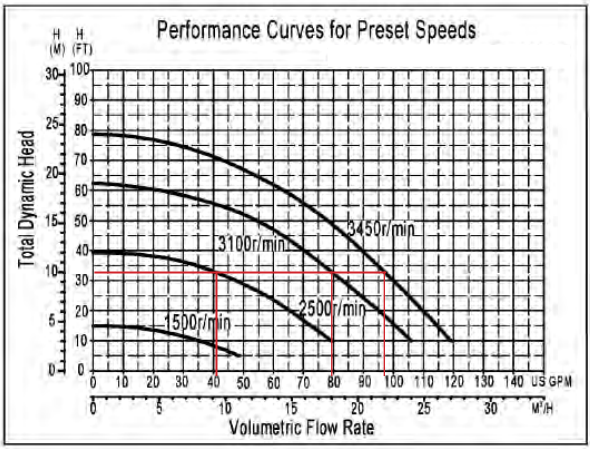
PF-VL15HW



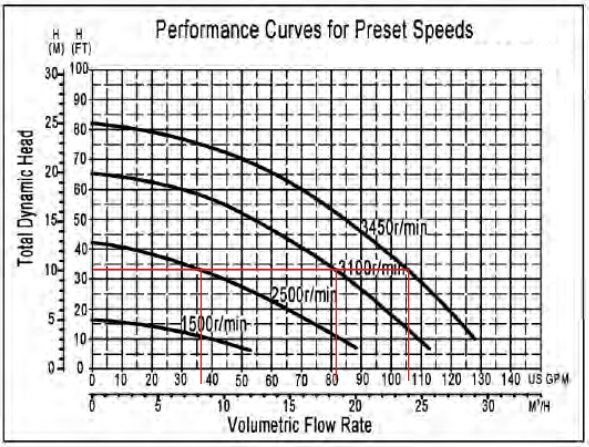
PF-VL10PW



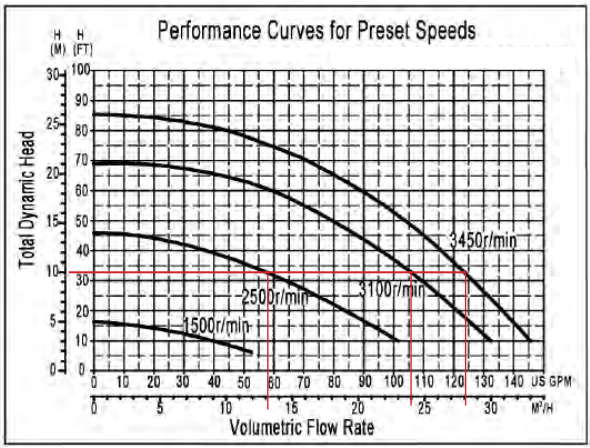
PF-VL15PW



PF-VL20PW



PF-VL30PW



POOLEX

Assistance technique - Technical support -
Asistencia técnica - Assistenza tecnica -
Technische unterstützung - Technische bijstand

www.assistance.poolstar.fr
contact@poolstar.fr

Poolex is a brand of the group :

Poolstar

12-2024