

EVAsstream Move



USER MANUAL

A step-by-step user's guide to getting started

TABLE OF CONTENTS

1	Important safety instructions	4
2	Product technical data	7
3	Placing the EVAstream Move in your pool	9
4	Charging the EVAstream Move	15
5	Connect two EVAstream Move machines for double power	19
6	Create the best swimming zone	21
7	Remote control	23
8	EVA Experience Web App	25
9	Safety standards	26
10	General safety instructions	28
11	When the EVAstream should not be used	29
12	Using the EVAstream safely	30
13	Water values	31



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EVASTREAM Move
Dutch User manual



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1. IMPORTANT SAFETY INSTRUCTIONS



Danger! Never charge near water!

Never charge the EVAstream Move while using the machine. Never charge the EVAstream Move near the swimming pool. Serious risk of electrical shock!

Important safety instructions: rotating parts

The EVAstream Move is a powerful machine with rotating parts. Safety measures have been taken to ensure the safety of fingers, toes and also to prevent hair entanglement. Nevertheless, you should always maintain a safe distance from the machine.

Despite the safety measures implemented to prevent hair entanglement, every EVAstream user is advised to wear a swim cap. EVAstream complies with the following safety standards: DIN EN16582-1/2/3, EN16713-2 (residential pools) and EN13451-1/3 (commercial pools).

Important safety instructions: child supervision and safety

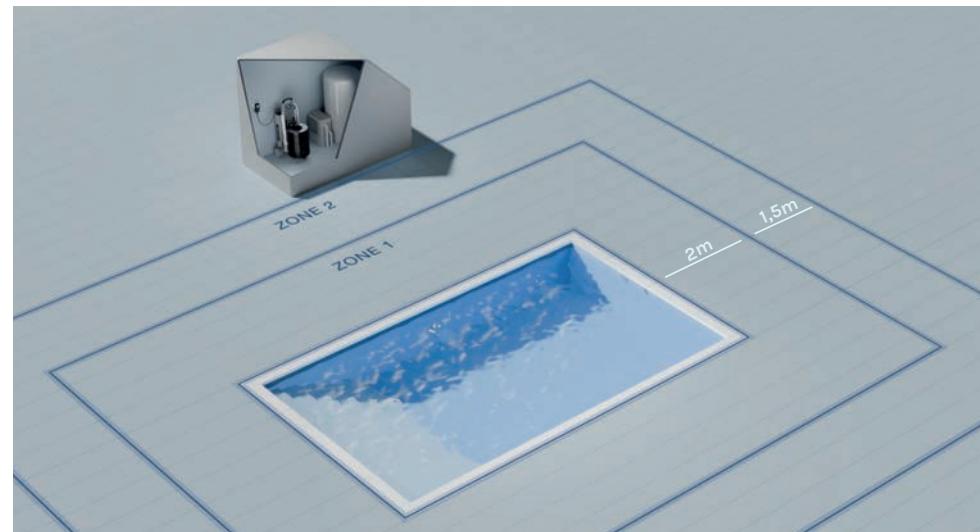
The EVAstream should not be used by children under 8 years old. Children under 16 years of age should never use EVAstream without adult supervision. The EVAstream Move may only be placed in the pool by an adult.

The EVAstream Move is not a toy. Keep your distance from the machine and absolutely do not hang from, pull on or sit on top of the turbine.

Important safety instructions: safe charging

Never charge near the water! The EVAstream Move must be charged outside of pool zone 2.

The EVAstream Move battery must be charged in a cool, dry and well-ventilated environment (ideally between 10 to 25 degrees Celsius, never below 0 or above 35 degrees Celsius). The battery must always be charged outside of pool zone 2 (never within zones 0, 1 or 2).



When not in use, avoid placing the EVAstream Move in direct sunlight.



Never use or store the EVAstream Move in a room/area where the temperature is below the freezing point.



Always use the included charger with PRCD personal protection plug for safe charging of the EVAstream Move. Charging with uncertified chargers could result in personal danger and/or damage to the machine. Doing so will void any warranty.

Rules for safe and responsible charging:

- For correct and safe charging of the EVAstream Move, always follow the specific charging instructions in this manual (4)!
- Charging the EVAstream Move from a wall socket should only be carried out by an adult.
- We recommend charging the battery near a smoke detector.
- We do not recommend unsupervised charging. It is advisable to keep an eye on the battery during charging.
- After the charging cycle is complete (approx. 4 hours), disconnect the charger from the wall socket.
- Do not interrupt the charging cycle by disconnecting from the wall socket prematurely.
- Mount the battery charger box on the wall to keep water from entering the charger.
- If you notice leaking fluid, excessive heat, a strong odour, smoke or sparks when charging the battery, disconnect it from the wall socket immediately.

2. PRODUCT TECHNICAL DATA

EVAstream Move

Machine configuration	single-engine machine
Minimum pool dimensions	4 x 2.5 meters (l x w)
Warranty	2-year factory warranty on the turbine + MCU
Recommended use	Recreational / experienced swimmer
Weight EVAstream Move (incl. battery)	30 kg

EVAstream Move - Turbine

Water temperature	5°C to 35°C
IP rating	IPX8
Flow rate capacity	Max. 250 m ³ / h (adjustable flow)
Max. water speed at outlet	6 m/s
Max. waterflow speed swimzone	1:30 sec. per 100 meters

EVAstream Move - Motor control unit

Control input	DMX 512
Output Motor PMSM 3x DC	RPM range 10-100%
IP rating	IP 20
Working temperature	Max 32°C, mount in a dry and condensation-free area
Safety measures	EVA Torque control, Voltage/current control, Mosfet temperature control

3. PLACING THE EVASTREAM MOVE IN YOUR POOL



1. Place the EVAstream Move on the edge of the pool in the centre

By prioritizing symmetrical placement, you ensure a harmonious flow throughout the pool, resulting in an optimal swimming experience for all users.



2. Place the EVAstream Move on the edge of the pool

Make sure that the wheels are placed just over the edge of the pool.

EVAstream Move - Battery

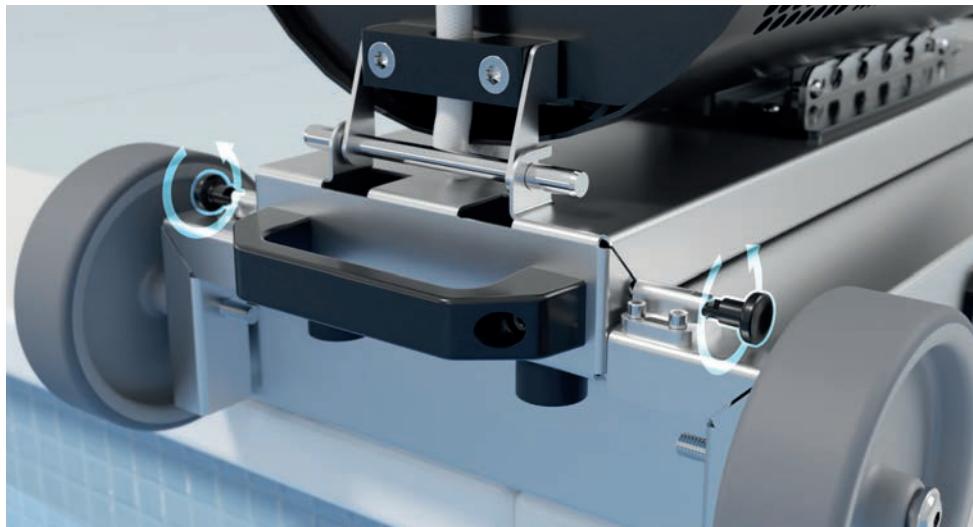
Battery type	Li-ion NMC 8S 30Vdc60A
Swimming time	60 minutes at 100% use
Warranty	1 year on the battery
Battery charging time	4 hours
Battery weight	10.9 kg
Battery dimensions	26.5 cm x 7.3 cm x 41 cm (l x w x h)
Chemical composition	Lithium-ion (NMC)
Battery voltage nominal	> 30 volts
Capacity	60 ampere hours
Ambient temperature	100% power in an environment at a temperature of up to 35 degrees, above which the capacity is reduced.

EVAstream Move - EVAstream speed vs battery life

Power	Speed km/h	Speed m/s	m ³ /h	Duration of full battery
50%	15	4,2	172	04:00
60%	16	4,5	184	02:30
70%	18	5	204	02:00
80%	19	5,3	216	01:40
90%	21	5,8	236	01:20
100%	22	6,1	250	01:00

Safety standards EVAstream turbine

EVAstream was built for speed and safety. Safety measures have been taken to ensure the safety of fingers, toes and also hair. EVAstream complies with the following safety standards: DIN EN16582-1/2/3, EN16713-2 (residential pools) and EN13451-1/3 (commercial pools).



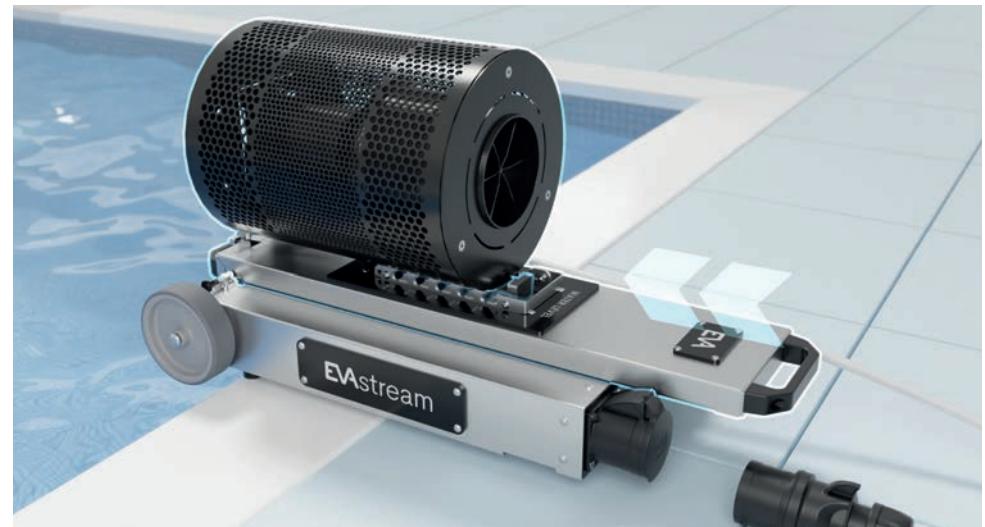
3. Pull and turn the black locking bolts

Pull and turn the black locking bolts 90 degrees clockwise to unlock the turbine from the Battery Control Unit.



4. Slide the top lever up

Slide the top lever up in order to open the height-adjustment slots.



5. Slide the top plate down slightly

Slide the top plate down approximately 2-3 centimetres to unlock the lever mechanism.



6. Determine water level

Measure the space between the top edge of the pool and the water level at the surface of your pool to determine the correct turbine height.



7. Attach the turbine to the correct height slot

Attach the turbine to the corresponding height slot (edge of pool to water level in cm). Secure the turbine by pushing the top lever down again.



8. Lower the EVAstream Move turbine into the water

Use the top handle to lower the EVAstream turbine into the water. Always make sure that the two stabilizing rubber feet on the lower back of the turbine plate are resting firmly against the pool wall for stability. **Never turn on the EVAstream if these rubber feet are not in contact with the pool wall!**



9. Connect the turbine to the battery control unit

Connect the turbine's power cable to the battery control unit.



10. Start the EVAstream Move

Start the EVAstream with either the remote control or the EVA Experience web app. If you find that you are swimming over/above the water flow, or if you experience a lot of splashing, the turbine position on the wall needs to be adjusted (see 6: Create the best swimming zone).



11. After use, first disconnect the battery from the battery control unit

Remove the turbine's power cable from the battery control unit.



12. After use, lift the EVAsream Move out of the water

To remove the machine from the pool, follow the previous steps in reverse order.

4. CHARGING THE EVASTREAM MOVE

Never charge near the water! The EVAsream Move must be charged outside Zone 2. For correct and safe charging of the EVAsream Move, always follow these specific charging instructions!



Always use the included charger with PRCD personal protection plug for safe charging. The charging station used to charge the EVAsream Move battery is equipped with a PRCD personal safety switch. The PRCD plug works as a circuit breaker which switches off the power flow from the wall socket immediately when current leakage is detected. Mount the battery charger box on the wall to keep water from entering the charger!



Even though charging the EVAsream Move while in or near the water is strictly prohibited (the unit must be at a distance of at least 3.5m, outside of pool zone 2), the PRCD switch is an extra safety measure to minimize the risk of electric shock resulting from (unintentional) water contact.



1. First insert the charger's connector into the EVAstream Move

Insert the connector of the supplied battery charger into the EVAstream Move's Battery Control Unit and turn 90 degrees clockwise to fasten.



2. Then place the PRCD plug into the wall socket

Connect the supplied charger cable with PRCD plug to the wall socket.



3. Press the green button on the PRCD plug to start charging

A complete charging cycle takes approximately 4 hours. When your charger indicates that the battery is full - the red light on the charger box turns green - it is important to disconnect it as soon as possible. You don't want the charger to burden the battery any longer once your EVAstream Move is fully charged. Ensure that the battery is charged to at least 50% during a charging cycle. Do not terminate a charging cycle prematurely.

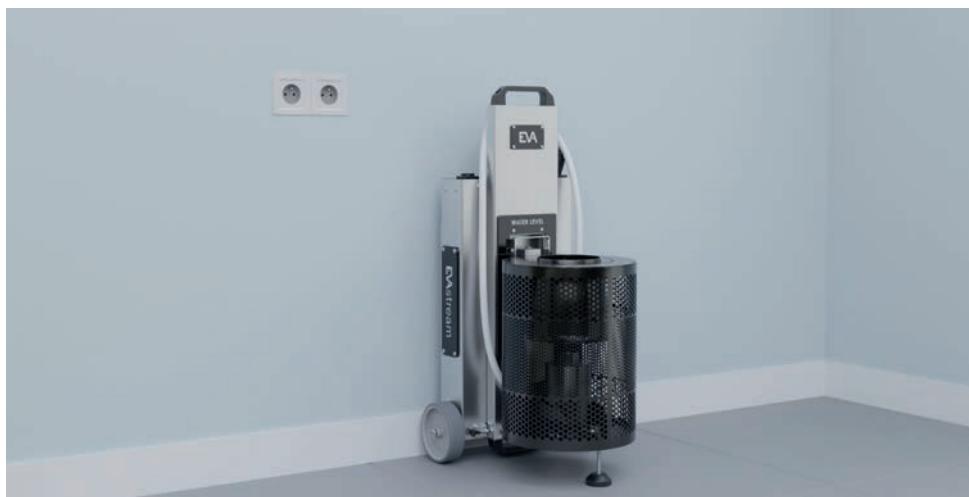


4. After the charging cycle has ended, first remove the PRCD-plug from the wall outlet

Remove the supplied battery cable from the wall outlet.



5. Only after the PRCD charger has been unplugged from the building's wall socket can you remove the charger connector from the EVAstream Move
Remove the supplied charger cable from the EVAstream Move.



Storage of the EVAstream Move for a longer period

During the winter, the EVAstream Move must be stored in a dry, well-ventilated and heated area (at least a few degrees above the freezing point). Fully charge the machine's battery before storage, and repeat every 3 months to avoid the battery becoming completely discharged. Make sure that you disconnect all plugs from the machine and the wall socket after charging.

5. CONNECT TWO EVASTREAM MOVE MACHINES FOR DOUBLE POWER

For those seeking the ultimate swimming experience, it is possible to link two EVAstream Move machines for a double powerful stream. You will not only experience maximum swimming power, but will also benefit from an extra wide swimming zone.



1. Synchronize two EVAstream Move machines

Link the two machines by connecting the supplied connection cable to both machines.



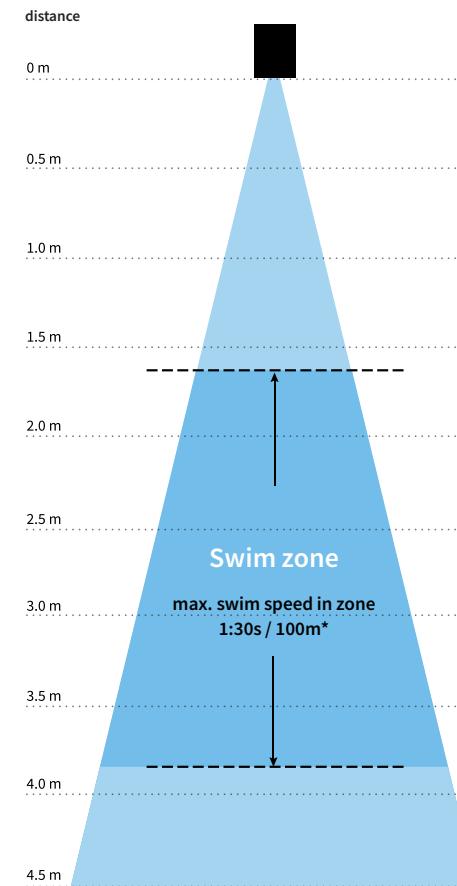
2. Unscrew the top cover plate of the 2nd EVAstream Move

Use an Allen wrench/key 4 M5x6mm (ISO 7380) to open the cover.

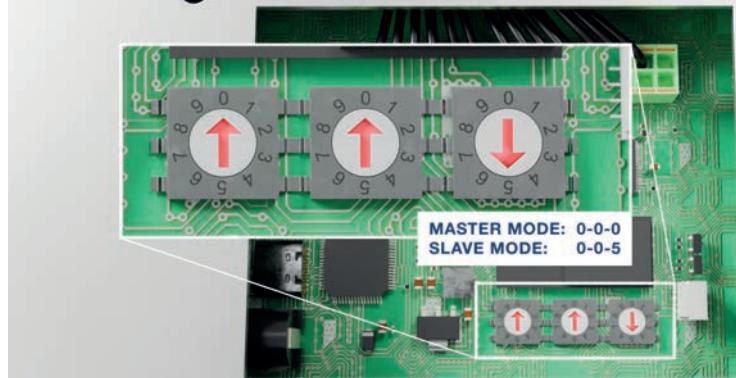
6. CREATE THE BEST SWIMMING ZONE

1. Determine swimming zone

You start by determining your swimming zone, see the image below:



*Measurements based on an adult professional swimmer.
Body size and mass affect swim speed.



3. Set the rotary switches of the 2nd EVAstream Move to 0-0-5

This allows both machines to be used simultaneously.



4. Close the cover plate of the 2nd EVAstream Move again (screw hand-tight)

Both machines can now be controlled simultaneously with either the remote control or the EVA Experience web app.



2. Turbine placement

For optimal positioning of the turbine, we recommend measuring the distance from the water level of your pool to the pool's edge. The measured distance corresponds to the height slots on the Battery Control Unit. Attach the turbine to the corresponding height slot and secure the turbine by pushing the top lever down again.



3. Check the swimming zone

The flow is supposed to be directed at the torso, not at the head, to ensure free breathing space while swimming. The current is wide and stable enough to encompass the entire body. If you find that you are swimming over/above the water flow, or if you experience a lot of splashing, the turbine position on the wall needs to be adjusted.



4. Adjust the turbine if necessary

You can adjust the turbine by tilting its position on the wall a couple of degrees. Turn the adjustment bolt on the bottom of the turbine clockwise (to tilt downwards) or counter-clockwise (to tilt upwards). This ensures an optimal swimming experience for each individual EVAstream Move user.

7. REMOTE CONTROL

The Remote control has the following control options:

1. EVA Remote control options



ON/OFF button

EVAstream ON/OFF

Button +

increase intensity 5%

Short press:

increase intensity as long as you press for a stepless increase in speed

Long press:

Button -

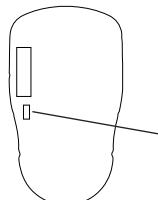
decrease intensity 5%

Short press:

decrease intensity as long as you press for a stepless decrease in speed

Long press:

2. On/off Switch



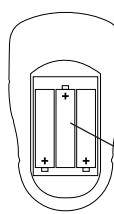
The remote control has an on/off switch on the back. The on/off switch disconnects power from the battery. In the 0/off position, the remote control will not function.

The on/off switch has 2 positions:

1 = on

0 = off

3. Replacing the batteries



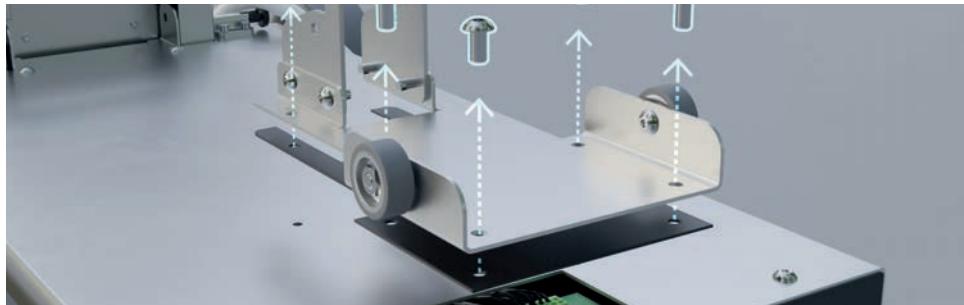
1. Remove the back piece (3 screws).
2. Remove the batteries.
3. Insert the new batteries.
4. Replace the back piece (3 screws).

Battery type: 2x AAA 1.5 V Alkaline

Remove the batteries during long-term storage.

Pairing a new remote control

If you have lost your remote control or it no longer functions properly, you can pair a new remote control with your EVAsream Move.



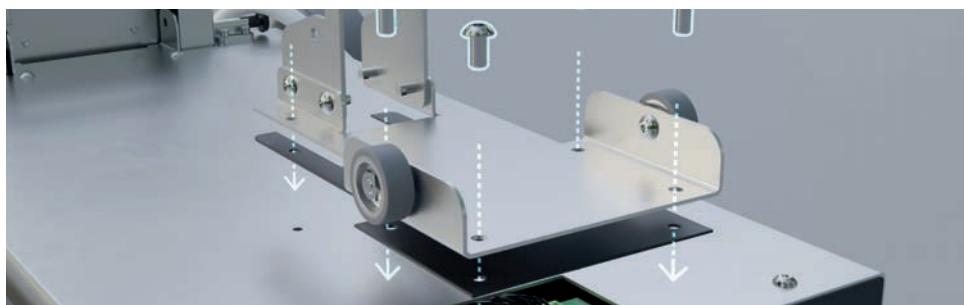
1. Unscrew the top cover plate of your EVAsream Move

Use an Allen wrench/key 4 M5x6mm (ISO 7380) to open the cover plate.



2. Connect your new remote control to the EVAsream Move

Press the black pin on the PCB for 3 seconds. Then press the on/off button on your remote control once.



3. Close the top cover plate of the EVAsream Move again.

The new remote control is now ready for use.

8. EVA EXPERIENCE WEB APP



By default, the EVAsream Move is controlled with the included remote control. In addition, the EVA Experience web app can be added for an enhanced swimming experience.

We have developed a complete training program for swimmers of every age and every skill level. The workouts consist of interval, sprint and endurance elements and increase in duration and intensity. Use the EVA Experience web app as your very own personal swimming trainer!

For installing and setting up the web app, scan the QR codes below:



Connect to
Wi-Fi network
EVAsream Move



Connect to
EVA Experience
web app



How to use the
EVA Experience
web app

SSID: EVAsreamMove
Password: U1yW5mdM

IP-address: 192.168.4.1 (Android)
Local-host: evacontroller.local (iOS)



If you are unable to connect to the EVAsream Move Wi-Fi network (step 1), please visit the step-by-step overview on our website for alternate connection options:



EVA Experience
web app - network
connection

9. SAFETY STANDARDS

The EVAstream swimming machine is an extra low voltage (ELV) system. Due to the very low voltage, the machine is suitable for use in both private and public swimming pools. Due to the very low voltage, the EVAstream swimming machines fall well outside of the scope of both the Machinery Directive 2006/42/EC (1000Vac/1500Vdc or higher) and the Low Voltage Directive 2014/35/EU (50Vac/75Vdc - 1000Vac/1500Vdc). Although the EVAstream (with a maximum of 30Vdc) falls well outside of the scope of these standards, all EVAstream models meet the relevant safety requirements as stated in both guidelines.

Specific safety standards for swimming pool products and installations

All EVAstream models comply with the following specific standards and guidelines for use in swimming pools. These standards focus, among other things, on electrical safety, electromagnetic interference and protection against hair entanglement (hair safety).

NEN-EN 16582-1/2/3:2015+A1:2021

Swimming pools for private use -

Part 1: General requirements, including safety requirements and test methods

Part 2: Specific requirements, including safety requirements and test methods for inground swimming pools

Part 3: Specific requirements, including safety requirements and test methods, for above-ground swimming pools

NEN-EN 16713-2:2016

Swimming pools for private use - Water systems -

Part 2: Circulation systems - Requirements and test methods

NEN-EN 13451-1:2020

Swimming pool equipment -

Part 1: General safety requirements and test methods

for swimming pool equipment installed in public swimming pools

NEN-EN 13451-3:2022

Swimming pool equipment -

Part 3: Additional specific safety requirements and test methods for swimming water inlets and outlets and for water/air based water attractions

EN 60364-7-702/ DIN VDE 0100-702:2012-03

Low-voltage electrical installations -

Part 7-702: Requirements for special installations, rooms and areas - Swimming pools and fountains

Directive 2014/30/EU

Electromagnetic Compatibility (EMC)

Battery charging system

IEC EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2: 2013

IEC EN 55022:2010+AC:2011

IEC EN 55024:2010+A1:2015

IEC EN 61000-3-2:2019

IEC EN 61000-3-3:2013+A1:2019

IEC EN 61000-4-2/3/4/5/6/11

IEC EN 55032:2015

IEC EN 55035:2017

UN 38.3

UN 3481

IEC EN 62133

10. GENERAL SAFETY INSTRUCTIONS

10.1 Read before use

- Follow the directions for electrical installation and use carefully.
- Failure to comply or inadequate compliance with these important instructions can result in serious personal injury or property damage.
- We do not accept any claim under warranty and/or liability for material and/or intangible damage as a result of failure to comply with these regulations regarding installation, mounting, and use.
- The general terms and conditions of EVA Tech B.V. apply to all our offers and agreements. EVA Tech B.V. expressly rejects the applicability of the general (purchasing) conditions of counterparties. The warranty provisions of the EVAsream and the general terms and of EVA Tech B.V. apply to all our offers and agreements.

10.2 Important general information

- EVAsream is a powerful machine. The machine includes a very powerful motor with rotating parts. As with any machine, always consider your safety and the safety of others when using it.
- The EVAsream Move is a powerful machine with rotating parts. Safety measures have been taken to ensure the safety of fingers, toes and also to prevent hair entanglement. Nevertheless, you should always maintain a safe distance from the machine.
- Despite the safety measures implemented to prevent hair entanglement, every EVAsream user is advised to wear a swim cap. EVAsream complies with the following safety standards: DIN EN16582-1/2/3, EN16713-2 (residential pools) and EN13451-1/3 (commercial pools).

11. WHEN SHOULD THE EVASTREAM NOT BE USED

People who do not have an official certificate of swimming proficiency (swimming diploma) may under no circumstances use the EVAsream.

- The EVAsream should not be used by children under 8 years old.
- Children under 16 years of age should never use EVAsream without adult supervision.
- Never leave children alone when the EVAsream is on or can be easily turned on.
- Always keep your attention on the swimmer.
- The EVAsream should not be used by persons with limited physical and/or sensory, or mental capabilities unless they are under the supervision of a qualified person responsible for their safety.
- Using the EVAsream if you have consumed alcohol, drugs, or medication that affects your ability to react is not permitted.
- Not for use in potentially explosive areas.
- Not for use in any aggressive environments (in the presence of gases, acids, vapours, substances, oils).
- Not for use in dirty water.
- The turbine should never be used outside of the water. Doing so will void the warranty.

12. USING THE EVASTREAM SAFELY

12.1 Read before use

- Every user and operator of the EVAstream must read the operating instructions in full, in advance. The regulations must be followed carefully at all times.
- Make sure that there are no people near the suction and outflow area of the turbine before turning on the EVAstream.
- The machine may only be operated under water. The machine must always be fully submerged before use. Serious and permanent damage to the machine can occur if the EVAstream is not submerged during use.
- The water (water values) and surroundings must meet the requirements for environmental conditions.
- Installation depth: the EVAstream can be placed at a maximum of 50 cm below water level.
- The machine and the pool in which it is placed must be free of obstacles before turning on the machine. Small objects and toys must be removed from the water and from the bottom to avoid damage to the machine.
- The EVAstream is only intended to be used as a counter-current swimming machine.
- Use for any other purpose must be discussed with the manufacturer in advance and must be documented in writing.
- Make sure that EVAstream users always read these instructions before use.
- Store these operating instructions in an easily accessible place near the machine.

12.2 Rules for a safe use

- Despite the safety measures implemented to prevent hair entanglement, every EVAstream user is advised to wear a swim cap. Wearing a swim cap enhances your safety and swimming experience.
- Make sure that there are no people near the suction and outflow area of the turbine before turning on the EVAstream.
- The suction of water takes place around the machine. Always make sure that the suction parts are completely free of obstacles. These parts of the machine must never be closed or blocked in any way. This not only provides an adequate supply of water, but it also ensures that the suction power always remains within the required levels (EN 13451-1/3).
- When operating the EVAstream, always ensure that the machine and pool in which it is located are in sight.
- Make sure that toys and small parts have been removed from the water and the bottom of the pool before switching on the EVAstream.

- Always maintain a sufficient distance from the EVAstream for your safety. Sufficient distance is at least 50 cm on both the front and the sides.
- Consider the force of the flow when using the EVAstream. Adjust the speed to the strength and skill of the user.
- Ensure that no people stand, sit, or otherwise place weight on the machine.
- Never submerge the battery control unit of the EVAstream. The battery control unit should always be kept dry.

13. WATER VALUES

The user of the EVAstream is responsible for providing the right conditions for an optimal product life cycle. To fulfil the warranty conditions, the EVAstream should only be used in pools with a water composition within the following limits:

- Water temperature: +1°C to +35°C
- pH value: 6.8 – 7.8
- Maximum chlorine levels for water:
 - Indoor swimming pool – Free available chlorine (FAC): $0.5 \leq VBC \leq 1.5 \text{ mg/l}$
 - Open-air swimming pool $\geq 20 \text{ m}^2$ – Free available chlorine (FAC): $0.5 \leq VBC \leq 3.0 \text{ mg/l}$
 - Open-air swimming pool $< 20 \text{ m}^2$ – Free available chlorine (FAC): $0.5 \leq VBC \leq 5.0 \text{ mg/l}$
 - All basins – Bound available chlorine: $< 0.6 \text{ mg/l}$
- The basin and the available accessories must be free of electrolysis.
- Cyanuric acid: $\leq 100 \text{ mg/l}$
- Metals: $\approx 0 \text{ mg/l}$
- Carbonate hardness: $\geq 2^{\circ}\text{dH}$ (${}^{\circ}\text{dH} = \text{mmol/l} \times 2.8$); (${}^{\circ}\text{eH} = \text{mmol/l} \times 3.5$);
 - (${}^{\circ}\text{fH} = \text{mmol/l} \times 5.0$)
- Ozone: 0 mg/l
- chlorite + chlorate: $\leq 30 \text{ mg/l}$
- Redox potential: $\geq 700 \text{ mV}$

EVA

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