OXYGON
SWIMMING POOL · WATER TREATMENT · HEATING · COOLING

Rocket

Counter-Current Swimming / Swim-Training Pump Series (3.0–5.5 HP)

Installation, Operation & Maintenance Manual

Oxygon codes: 106.07.297 / 298 / 299 / 300 | (3.0 / 3.5 / 4.0 / 5.5 HP)

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Contents

1. Safety Warnings

CAUTION — BEFORE INSTALLATION

Read this entire manual carefully before installing or operating the pump. Failure to follow the safety instructions can cause serious injury, property damage or death. Keep this manual in a safe place for future reference.

ELECTRICAL HAZARD

Before any installation or maintenance work, disconnect the power supply. Electrical connection must be carried out only by a qualified electrician in accordance with the national wiring rules. The pump must be protected by a residual-current device (GFCI/RCD) with a rated current ≤ 30 mA. Connect the pump only to an earthed socket protected by an RCD.

EARTHING REQUIRED

The pump must be connected to an earthed power supply. If you are not sure whether an earthing system is present, contact a qualified electrician. If the power cord is damaged, it must be replaced by the manufacturer, its service agent or a qualified technician (type-Y attachment) to avoid a hazard.

WATER SAFETY & DRY RUNNING

Never run the pump without water. Dry running destroys the mechanical seal and the impeller and voids the warranty. Never start the pump before the pipework is fully connected. Make sure the circuit is filled with water before start-up. The pump is intended exclusively for swimming pools.

INTENDED USE

The Rocket pump is intended exclusively for counter-current swimming (swim-jet) and pool hydromassage systems with clean water. Use with chemicals, hydrocarbons, sludge, solvents or flammable liquids, or with water above 50°C, is prohibited. Do not touch moving parts during operation. The appliance is not intended for use by persons (including children) with reduced physical or mental abilities without supervision; children must be supervised so that they do not play with the appliance.

The product complies with EN 60335-2-41 and with the European Directives 2014/35/EU (Low Voltage) and 2014/30/EU (Electromagnetic Compatibility). For warranty terms, see Section 12 — Warranty & Contact.

2. Package Contents

On delivery, carefully check that the package includes all of the following. In case of missing items or transport damage, contact the Oxygon Service Department immediately.

- Rocket counter-current pump with mounting base
- Inlet/outlet connection unions (G2¾" suction / G4" discharge)
- Union sealing gaskets (O-rings)
- Base fixing screws
- Installation and operation manual (this document)
- Oxygon warranty certificate

3. General Product Description

The Rocket series consists of single-stage, high-flow centrifugal pumps specially designed for counter-current swimming (swim-jet) and pool hydromassage systems. They deliver a strong, steady stream of water for swim training on the spot, as well as for hydromassage applications. They are made of reinforced thermoplastic with high resistance to UV and feature a full-drain system that prevents residual water from remaining after each stop.

Key Features

- Strong, steady flow for counter-current swimming and hydromassage
- Single-stage high-flow centrifugal design (up to 90 m^3/h)
- Full water-drain system at every stop
- Asynchronous motor with thermal protection (single-phase model)
- Durable thermoplastic body, UV-resistant
- Large G2¾" / G4" connections for high flow rates
- Power range 3.0–5.5 HP (single-phase & three-phase)
- Operation with clean water up to 50°C

4. Technical Specifications

The following values apply to operation at 50 Hz and are taken from factory data. The maximum flow (Qmax) is measured at zero head and the maximum head (Hmax) at zero flow.

Rocket Series Variants (50 Hz)

Oxygon code	HP	kW	Voltage	Qmax (m³/h)	Hmax (m)
106.07.297	3.0	2.2	220V 1~	66	11
106.07.298	3.5	2.5	400V 3~	72.6	11.5
106.07.299	4.0	3.0	400V 3~	78	13
106.07.300	5.5	4.0	400V 3~	90	17.5

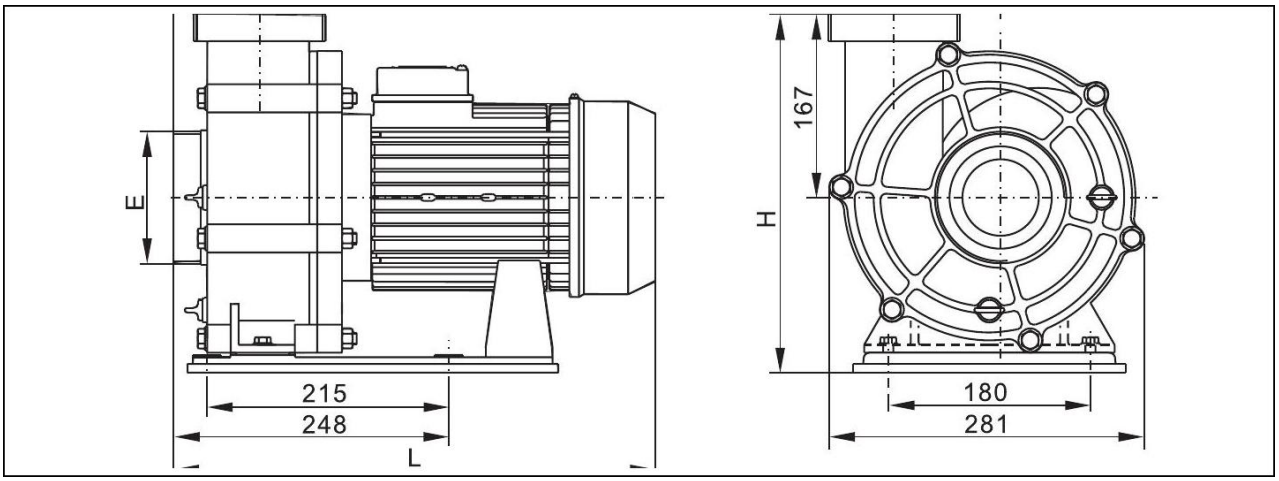
Common Characteristics

Pump type	Single-stage centrifugal, for counter-current / hydromassage
Inlet/outlet connections	G2¾" (suction) / G4" (discharge)
Maximum water temperature	50°C
Storage temperature	-10°C to +50°C
Ambient relative humidity	≤ 95%
Thermal protection (TP)	Built-in (single-phase model 106.07.297)
Body material	Reinforced thermoplastic, UV-resistant
Body height (H)	323 mm
Compliance standard	EN 60335-2-41

The 106.07.297 model (3.0 HP) is available in a single-phase version (220V / 50Hz). The 106.07.298 (3.5 HP), 106.07.299 (4.0 HP) and 106.07.300 (5.5 HP) models are available exclusively in a three-phase version (400V / 50Hz). The voltage and frequency are always stated on the motor nameplate.

5. Dimensions

Dimensions of the Rocket series in millimetres (mm). The body height (H) is 323 mm for all variants; the overall length (L) varies per power variant.



Rocket pump body dimensions (side and rear view).

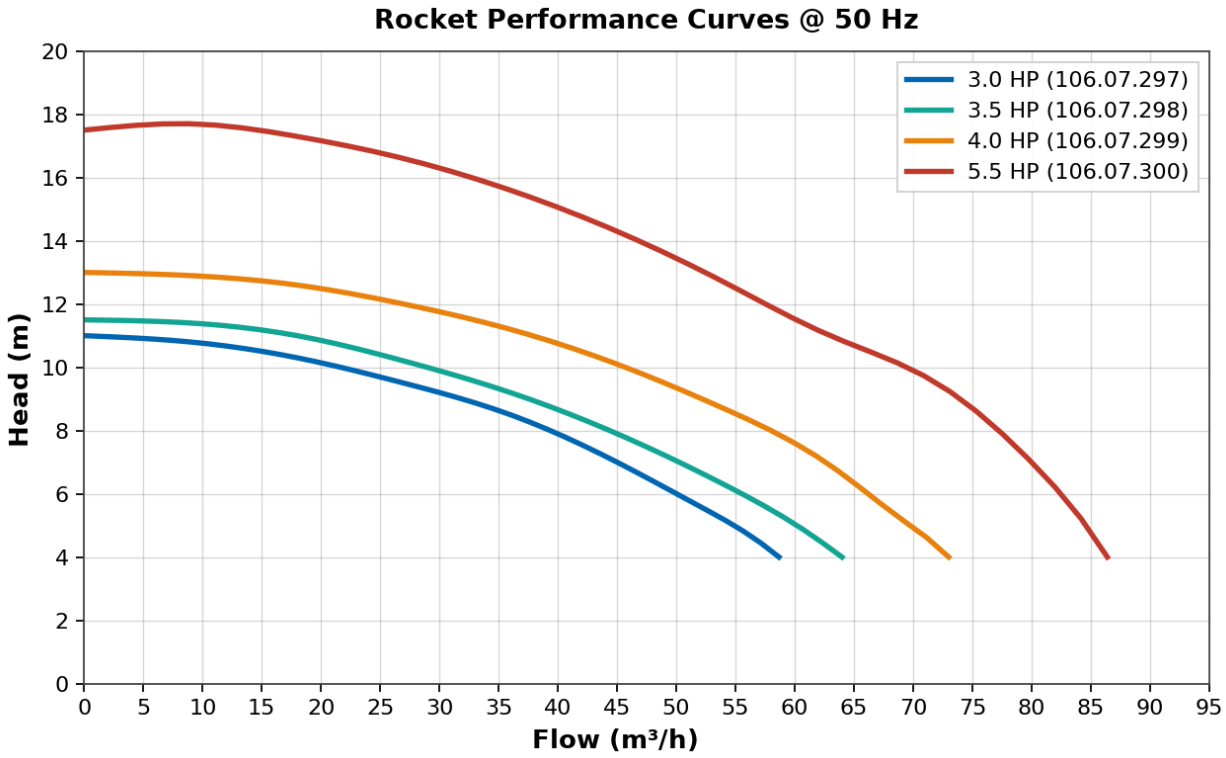
Overall length (L) per variant

Oxygon code	Power (HP)	L — Overall length (mm)
106.07.297	3.0	412
106.07.298	3.5	412
106.07.299	4.0	412
106.07.300	5.5	429

Indicative mounting-base dimensions: base width 281 mm, fixing-hole centres 180 mm (transverse) and 215/248 mm (longitudinal). Shaft height (H) 323 mm.

6. Performance Curves

The curves below show the relationship between head (H) and flow (Q) for each variant of the Rocket series at 50 Hz. The data is factory-derived and indicative — actual performance depends on the installation (pipe length/diameter, nozzles, bends, valves).



Q–H curves of the Rocket series at 50 Hz (4 variants).

7. Installation

Mounting Location

The pump is installed horizontally, as close as possible to and below the pool water level.

The distance from the pool must comply with the national wiring rules (typically ≥ 3.5 m).

The installation area must be well ventilated, dry and protected from sun and rain.

Do not install the pump inside or beneath the hydromassage skirt unless it is marked accordingly.

Fix the pump with screws through the base holes to avoid noise and vibration.

The mounting base must be flat, stable and able to support the weight of the pump.

Hydraulic Connection

The suction and discharge pipes must have a diameter equal to or greater than the pump connection (G2¾" / G4").

The suction pipework should be as short as possible and free of air traps.

The pipes must not rest on the pump body — provide independent support.

Seal all unions and joints well; avoid leaks onto the motor.

Connect the discharge to the counter-current swim jet; adjust the nozzles to achieve the desired flow.

Direct the nozzles away from the suction inlet so that no air is drawn into the pump.

8. Electrical Connection

QUALIFIED ELECTRICIAN ONLY

The electrical installation must have a multi-pole disconnection device with a contact opening of at least 3 mm and must comply with national regulations. Make sure the mains voltage and frequency match the motor nameplate.

Connection Requirements

Supply through a residual-current device (RCD) with a rated leakage current ≤ 30 mA.

Correct connection of the earth cable — mandatory.

Equipotential bonding between pool and pump with a conductor of 2.5–6 mm² cross-section.

The single-phase model (106.07.297) has built-in thermal protection.

The three-phase models (106.07.298/299/300) must be protected by an external device against phase loss, overload and rotor blocking.

On three-phase models, check the motor rotation direction according to the mark on the fan cover.

Do not use an extension lead to power the pump.

Mains impedance requirements: the single-phase model 106.07.297 requires a system impedance ≤ 0.134 Ω. The three-phase models 106.07.298/299/300 require a system impedance ≤ 0.263 Ω. If necessary, consult your electricity provider.

9. Pre-Start Checks & Filling

Pre-Start Checks

Make sure the pump shaft rotates freely.

Check that the mains voltage and frequency match the nameplate.

Make sure all hydraulic connections are watertight and that the pipework is fully connected.

Check that there is a sufficient water level and that the pump will not run dry.

The hydromassage / counter-current system must have a device that prevents start-up when there is no minimum water level.

Filling & Start-Up

Fill the circuit with water up to the level of the pool inlet/nozzle.

Start the pump only after the suction and discharge pipes are connected and free of obstructions.

Apply power to the motor and adjust the nozzles as required for the desired flow.

The pump must NEVER run dry.

10. Maintenance

DISCONNECT BEFORE MAINTENANCE

Before any maintenance or cleaning work, disconnect the pump from the power supply and release the circuit pressure.

Routine Maintenance

Hydromassage / counter-current pumps require no special maintenance or scheduling under normal use.

Periodically check the connections and unions for leaks.

Check that the nozzles are clean and not obstructed by foreign matter.

If the power cord is damaged, it must be replaced by the manufacturer or a qualified technician.

Cleaning & Winterization

During prolonged inactivity, disassemble, clean and store the pump in a dry, well-ventilated place.

Fully drain the water from the body to avoid frost damage.

Circuit cleaning: (1) fill with water up to the pool inlet level, (2) run for 2–3 minutes, (3) drain the water after the motor stops.

11. Troubleshooting

The table below summarises the most common problems and checks. If the problem persists, contact a qualified technician or the Oxygon Service Department.

Problem	Possible Cause	Check / Solution
The pump does not start	No power supply	Check the fuse/breaker, the residual-current device (RCD/GFCI) and the power connection.
The pump does not start	The air switch is not connected	Check that the control air switch is correctly connected.
The pump does not start	Thermal protection tripped	Let the motor cool down; check for overload or a blocked shaft.
The pump does not start	Blocked shaft	Disconnect the power and check whether the shaft rotates freely.
The motor hums but does not turn	Wrong voltage or phase loss (three-phase)	Check the voltage and all three phases at the panel.
The pump does not pump correctly	Air entering the suction	Turn the nozzles away from the suction inlet; check the tightness of the unions and pipe.
The pump does not pump correctly	Blockage or leak	Check whether the suction inlet is blocked or covered and whether there is foreign matter in the body.
Low flow / pressure	Low supply voltage	Check the mains voltage; avoid cable extensions.
Low flow	Partly closed valve or restriction	Fully open the valves and check for restrictions/bends in the pipes.
Low flow at the nozzle	Clogged or misadjusted nozzles	Clean and adjust the counter-current nozzles.
Noise or vibration	Cavitation or loose mounting	Check for adequate water suction and tighten the mounting base.
Water leak	Worn O-ring or mechanical seal	Replace the gasket; for the mechanical seal, contact a technician.

12. Warranty & Contact

Oxygon provides a two (2) year warranty from the date of purchase for all manufacturing components of the Rocket series, provided that installation is carried out correctly in accordance with this manual and with the company's warranty terms.

Excluded from the warranty

- Wear from dry running.
- Damage from exceeding the maximum water temperature (>50°C).
- Damage from incorrect installation or electrical connection outside specifications.
- Damage from chemical attack (e.g. over-chlorination, non-approved chemicals).
- Frost damage (incorrect winterization).
- Wear of O-rings and gaskets (consumables).

Contact Information

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ISO Certifications

ISO 9001:2015 Quality Management *EUROCERT*	**ISO 14001:2015** Environmental Management *BQV*	**ISO 45001:2018** Health & Safety *BQV*
ISO 22301:2019 Business Continuity *EUROCERT*	**ISO 46001:2019** Water Efficiency *BQV*	

Recycling of materials must be carried out in accordance with applicable regulations.