

**9@97HF ⇒ 'DI A D': CF 'HF 5BG: 9FH
TYPE I D%57**



PRODUCT DESCRIPTION**A**

Self-priming electric pump for transfer of fresh or salt water with flexible impeller of nitrile rubber which allows the problem-free transit of small particles.

TECHNICAL DETAILS**B**

CODE	TYPE	FLOW RATE (2m)	PRESSURE	VOLT	FUSE	WEIGHT	P.CS x CART.
162 001 1C	UP1/AC	30 l/min	1 bar	220	2.5 A	8,5 kg	1

AMBIENT CONDITIONS**C**

Temperature: min. -10 °C / max. +60 °C **Relative humidity:** max. 90 %
Warning: the above indicated temperature ranges must be respected, in order to avoid any possible damage or malfunctioning.
Storage should be in a dry area, same temperature ranges.

ELECTRICAL CONNECTIONS**D**

The electric pump must be connected to a 220VAC power. The pump must be protected by a suitable rated fuse.

OPERATING CYCLE**E**

The pump has been designed for continuous use.

APPLICATIONS**F**

There are numerous fields of applications for the pump, however only exclusively with the allowed liquids mentioned.

- water transfer
- boat bilge water transfer

G**FLUIDS ALLOWED / NOT ALLOWED****ALLOWED:**

FRESH WATER AND SEA WATER
WATER CONTAINING GLYCOLS

NOT ALLOWED:

PETROL (GASOLINE)
FLAMMABLE LIQUIDS with PM < 55°C
LIQUIDS WITH VISCOSITY > 20 cSt
FOODSTUFF LIQUIDS
CORROSIVE CHEMICAL PRODUCTS

SOLVENTS

DIESEL FUEL

RELATED DANGERS

FIRE EXPLOSION
FIRE EXPLOSION
MOTOR OVERHEATING
FOODSTUFF LIQUID CONTAMINATION
PUMP CORROSION -
INJURY TO PERSONNEL
FIRE EXPLOSION
DAMAGE TO SEALS
MOTOR AND RUBBER IMPELLER DAMAGE

H**TRANSPORTATION AND HANDLING**

Due to limited weight and dimensions the pump does not require the use of any special handling or lifting equipment. When handling manually, normal personal protective gear should be worn (safety shoes with toe piece, etc.)
The pump is carefully packed prior to shipment. Upon receiving, the pump packaging should be inspected for damages and the pump stored in a dry area.

I**INSTALLATION**

It is recommended that the use of the pump be according to normative safety standards and also as per the precautions listed below.

I-1**PACKAGING ENVIRONMENTAL DISPOSAL**

The packaging material is not in any way polluting or dangerous and does not require any special environmental disposal precautions. Disposal should be carried out according to local regulations in place.

I-2**PRELIMINARY CHECKS**

Check that there has been no damage to the pump during transportation or storage. Both inlet and outlet ports should be carefully cleaned. Remove the end caps and possible dust or residual packaging material. Verify that the available electrical power supply corresponds to the pump specification requirements.

I-3**POSITIONING OF THE PUMP**

The pump can be mounted in any position. Fix the pump utilizing suitable diameter screws corresponding to the holes of the flange.

WARNING: THE PUMP MOTOR IS NOT EXPLOSION PROOF. Do not install the pump where flammable vapours or gases may be present. Install the pump in an accessible place for inspection.

The pump is IP55 protection rated. It is good practice to avoid any pump contact with water splashes possibly causing water seepage into the motor with high risk of internal oxidation and/or short circuit.

TUBING CONNECTIONS

I-4

- Prior to making any tube/hose connections, check that the inlet ports have no end caps.
- Before attaching the delivery hose, partially fill the pump chamber with fluid in order to facilitate priming.
- Do not position the pump at a height greater than 1,5m with respect to the minimum level of the fluid to be transferred. Pump damage may occur if this height is exceeded as the pump may not draw fluid.
- Do not use conical threaded couplings as these may damage the threaded pump ports if tightened excessively.

PUMP INSTALLATION

I-5

The electrical installation of the pump must include a protection fuse which is suitably rated as indicated on the motor label and sized with reference to the chosen point of application.

WARRANTY EXPIRES IF NO FUSE IS UTILIZED

Electrical cabling size should depend on the distance between pump and power source.

Up to 40 m length: 1,5 mmq

The use of undersized cabling can cause overheating of the electrical wiring and subsequent fire hazard. There will also be a voltage drop at the motor terminals with a consequent reduction in efficiency.

The flow rate value indicated on the motor label is obtained with a 25 mm internal tube diameter. Tubes with inferior diameters will cause an increase in current with potential risk of motor overheating. On the outlet side it is advisable to use at least a short section of flexible tubing.

WARNING: it is the responsibility of the installation technician to ensure a correctly designed circuit installation fitted according to regulations. Environmental risks must be taken into account with the installation.

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TROUBLESHOOTING

L-1

CHECK POINTS IF THE PUMP HAS STOPPED OR WILL NOT START?

- Check the effectiveness of the battery power supply (voltage activity)
- Check if the fuse has blown
- Check for any foreign matter present in the pump impeller. To do this, disconnect the power supply and unscrew the three fixing screws, remove the pump front cover plate and inspect the pump chamber. Replace the cover plate in the same initial position after inspection.
- Avoid running the pump dry for more than a few seconds. **Pumps found defective that have run dry in the absence of fluid are not covered by warranty.**

L-2

WHY THE PUMP WILL NOT PRIME ITSELF?

- The pump is fitted at a height greater than 1,5m above the fluid level.
- Wear of the impeller due to the presence of highly abrasive material (sand) in suspension in the fluid
- The pump has run dry for too long a period
- Long periods of inactivity. In this case it is advisable to add liquid directly into the pump chamber before start-up. It is also advisable to add, before running the pump, a drop of lubricating oil inside the pump only.
- Air leak at the suction pipe due to the following reasons:
 - Possible cuts in the pipe, inadequate hose clamps, malfunctioning of the filter due to defective/worn seals
- Air leak at the pump front plate cover due to the following reasons:
 - Loose fixing screws, poor effectiveness of the seal.
- Presence of liquid loops in the outlet tube.

L-3

GOOD PRACTICES ENSURING A WELL FUNCTIONING PUMP

If it is expected that the pump will not be used for a period of at least 30 days, especially in the case of usage with salty water, it is advisable to run fresh water through the pump and to then loosen the pump front plate screws.

Upon re-use, run the pump briefly (a few seconds) and then tighten the screws again. Check under conditions of maximum operating pressure that the motor current value is within the motor label specifications.

NORMAL MAINTENANCE

L-4

Check every month the pump chamber and keep clean from any foreign matter. Check every month that electrical wiring is in good condition. Replace the rubber impeller every season.

INDICATORS THAT THE PUMP IS FUNCTIONING CORRECTLY

L-5

- Regular flow and constant pump noise levels
- Amp-draw within the limits indicated in the technical details

TO OPEN THE PUMP

L-6

- It is recommended that a specialized service technician be consulted for any pump repair work or the replacement of worn out internal components, exclusively with original spare parts.
- During the warranty period, only by authorized Marco S.p.A. personnel, failing which the warranty will expire.

ENVIRONMENTAL DISPOSAL

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Should the pump be discarded, do not pollute the environment. Please refer to the local environmental regulations.

WARRANTY

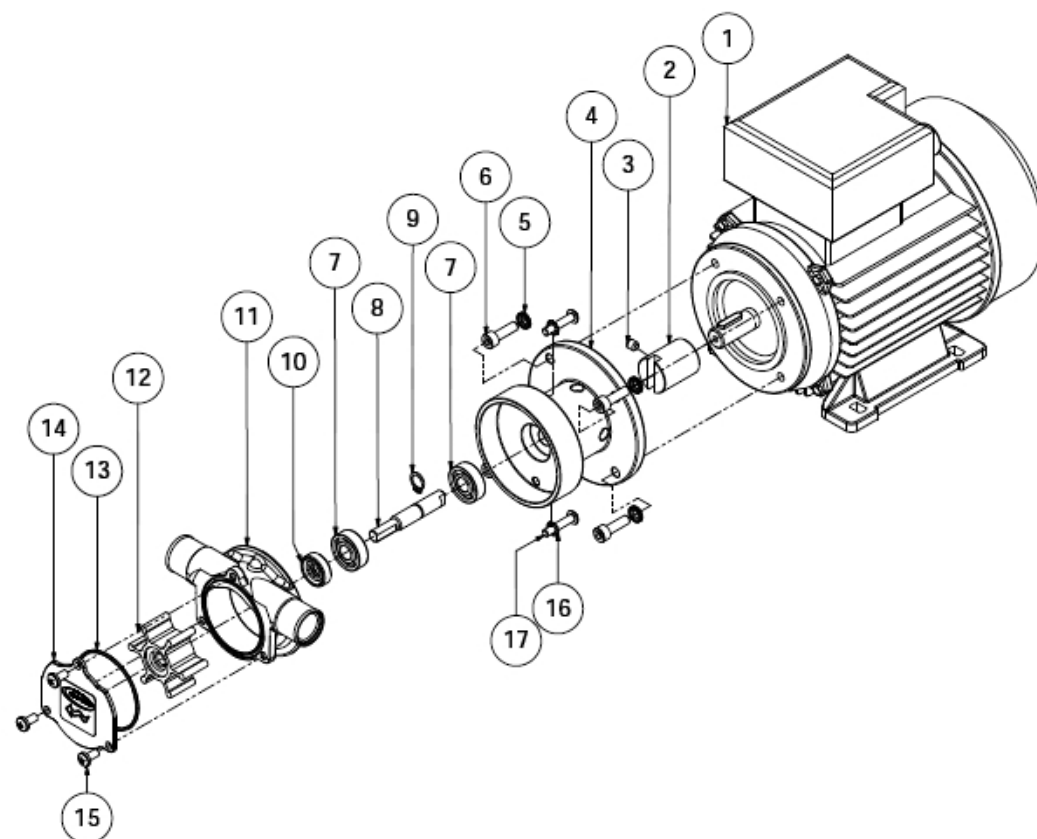
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- 1) The Warranty period is 2 years from date of purchase on production of the appropriate sales invoice.
- 2) Should the original sales invoice not be available, then the 2 year warranty period will be valid from date of production.
- 3) The Warranty becomes null and void in the case of incorrect utilization or disregard of the instructions contained herein.
- 4) The Warranty only covers original production defects.
- 5) The Warranty does not cover any related installation costs involved.

01 SCHEDA DI ASSEMBLAGGIO / EXPLODED VIEW UP1/AC 220V

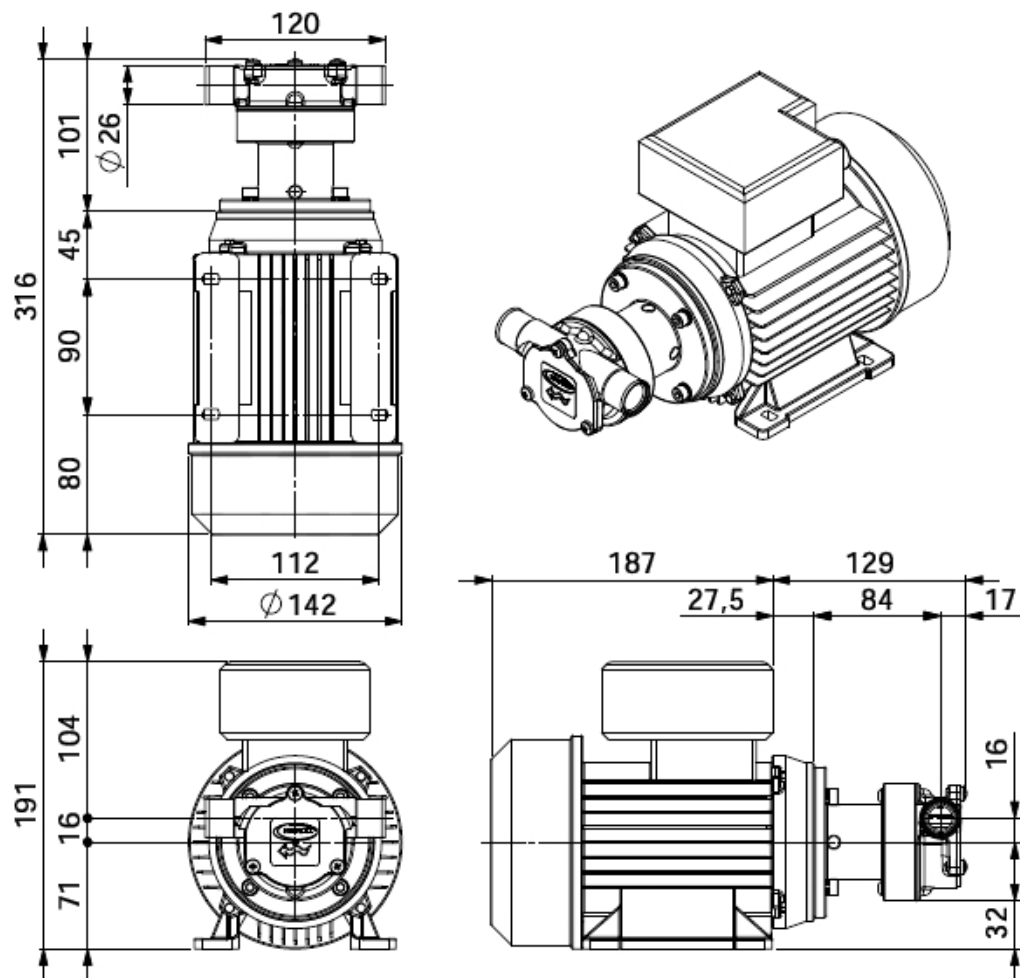
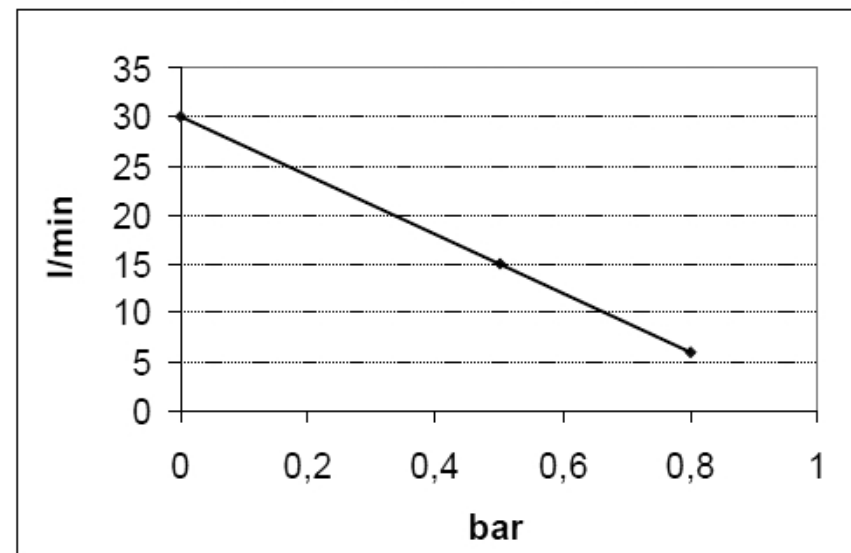
Pos.	Q.tà	Descrizione
1	1	MOTORE
2	1	GIUNTO
3	1	GRANO
4	1	FLANGIA
5	2	VITE
6	4	VITE
7	2	CUSCINETTO
8	1	ALBERO

Pos.	Q.tà	Descrizione
9	1	SEEGER
10	4	CORPO
11	1	ANELLO DI TENUTA
12	1	GIRANTE
13	1	O-RING
14	1	PIATTELLO
15	4	VITE



Art.	Q.tà	Descrizione
1	1	MOTOR
2	1	JOINT
3	1	HEADLESS SCREW
4	1	FLANGE
5	2	SCREW
6	4	SCREW
7	2	BALL BEARING
8	1	SHAFT

Art.	Q.tà	Descrizione
9	1	SEEGER
10	4	PUMP BODY
11	1	RUBBER LIP SEAL
12	1	IMPELLER
13	1	O-RING
14	1	TOP PLATE
15	4	SCREW

UP1/AC 220V

UP1-AC
**DIAGRAMMA PORTATA
FLOW RATES DIAGRAM**

**DIAGRAMMA ASSORBIMENTI
AMPERE-DRAW DIAGRAM**
