

ENGLISH (Translated from Italian)

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2 MACHINE AND MANUFACTURER IDENTIFICATION

AVAILABLE MODELS BIPUMP 12Vdc - BIPUMP 24Vdc

PRODUCT CODE F036301A

MODEL TECHNICAL DATA

DANGER

CE mark

MANUFACTURER Piusi S.p.A.

3 FACSIMILE COPY OF EU DECLARATION OF CONFORMITY

The undersigned Piusi S.p.A. Via Pacinotti 16/A, z.s. Rangovino 46029 Suzzara - Mantova - Italy

HEREBY STATES under its own responsibility that the equipment described below: Description: PUMP INTENDED FOR DIESEL FUEL TRANSFER Model: BIPUMP 12Vdc - BIPUMP 24Vdc Serial number: refer to Lot Number shown on CE plate affixed to product Year of manufacture: refer to the year of production shown on the CE plate affixed to the product complies with the following legislation: - Machinery Regulations - Electromagnetic compatibility

4 MACHINE DESCRIPTION

PUMP Self-priming, volumetric, rotating vane pump, equipped with by-pass valve

MOTOR Brush motor, DC, low tension with intermittent cycle, closed type in protection class IP55 according to CEI EN 60034-5, directly flanged to the pump body

4.1 MOVING AND TRANSPORT

Foreword Due to the limited weight and dimensions of the pumps, special lifting equipment is not required to handle them.

5 GENERAL WARNINGS

MODEL	WEIGHT (Kg)	PACKAGING DIMENSION (mm)
BIPUMP 12V - 24v	9,9 / 10,4	345 x 175 x 255

5 GENERAL WARNINGS

Warnings To ensure operator safety and to protect the dispensing system from potential damage, workers must be fully acquainted with this instruction manual before attempting to operate the dispensing system.

Symbols used in the manual

ATTENTION This symbol indicates safe working practices for operators and/or potentially exposed persons.

WARNING This symbol indicates that there is risk of damage to the equipment and/or its components.

NOTE This symbol indicates useful information.

Manual preservation This manual should be complete and legible throughout. It should remain available to end users and special installation and maintenance technicians for consultation at any time.

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6 SAFETY INSTRUCTIONS

ATTENTION You must avoid any contact between the electrical power supply and the fluid that needs to be FILTERED.

Maintenance control Before any checks or maintenance work are carried out, disconnect the power source.

FIRE AND EXPLOSION To help prevent fire and explosion: Use equipment only in well ventilated area.

ELECTRIC SHOCK This device must be grounded. Improper grounding setup or usage of the system can cause electric shock.

Electrocution or death Connect only to a grounded electrical outlets.

EQUIPMENT MISUSE

Misuse can cause injury or serious death

Do not operate the device when fatigued or under the influence of drugs or alcohol.

Do not leave the work area while device is energized or under pressure.

Do not alter or modify the device.

7 FIRST AID RULES

Disconnect the power source, or use a dry insulator to protect yourself while you move the injured person away from any electrical conductor.

8 GENERAL SAFETY RULES

Essential protective equipment characteristics Wear protective equipment that is suited to the operations that need to be performed, resistant to cleaning products.

Personal protective equipment that must be worn

close-fitting clothing; protective gloves; safety goggles;

9 TECHNICAL DATA

	Voltage (V)	Frequency	Absorption (A)	RPM	Nominal Flow Rate (l/min)	Motor Protection
BIPUMP 12V	12	DC	.44	2200	85	IP55
BIPUMP 24V	24	DC	22,5	2200	85	IP55

10 OPERATING CONDITIONS

10.1 ENVIRONMENTAL CONDITIONS

TEMPERATURE min. -4 °F / max +140 °F min. -20 °C / max +60 °C Max. 90%

RELATIVE HUMIDITY The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction.

10.2 ELECTRICAL POWER SUPPLY

In accordance with the model, the pump must be powered by a direct current line, the nominal values of which are indicated on the table in the paragraph TECHNICAL DATA.

10.3 DUTY CYCLE

The pumps have been designed for intermittent use and a 30-minute duty cycle under conditions of maximum back pressure.

11 INSTALLATION

11.1 PRELIMINARY INSPECTION

Verify that all components are present. Request any missing parts from the manufacturer.

11.2 POSITIONING THE PUMP

The pumps can be installed in any position (with pump axis in vertical or horizontal position).

11.3 NOTES ON SUCTION AND DELIVERY LINES

The selection of the pump model must be made taking into account the characteristics of the system.

12 CONNECTIONS

GENERAL WARNING Before installation and maintenance make sure that power supply to the electric lines has been turned off.

12.1 ELECTRICAL CONNECTIONS

Comply with the following (not exhaustive) instructions to ensure a proper electrical connection:

13 INITIAL START-UP

GETTING STARTED

13.1 INITIAL START-UP

Extreme operating conditions with working cycles longer than 30 minutes can cause the motor temperature to rise, thus damaging the motor itself.

13.2 CONNECTING THE PIPING

Before any connections, please refer to the indications (sticker on the pump) to detect suction and delivery univocally.

13.3 CONNECTING THE PIPING

Before connecting, make sure that the pipes and the suction tank are free of dirt and thread residue, which could damage the pump and accessories.

14 DAILY USE

FOREWORD This pump is for professional use only.

USE PROCEDURE

1 If using flexible tubing, attach the ends of the tubing to the tanks. In the absence of an appropriate slot, solidly grasp the delivery tube before beginning dispensing.

2 Before starting the pump make sure that the delivery valve is closed (dispensing nozzle or line valve).

3 Turn the ON/OFF switch on. The by-pass valve allows functioning with delivery closed only for brief periods.

4 Open the delivery valve, solidly grasping the end of the tubing.

5 Close the delivery valve to stop dispensing.

6 While dispensing, do not inhale the pumped product.

7 Should you spill any fluid while dispensing, blank it with earth or sand to absorb it and limit its spreading.

8 Close the delivery valve to stop dispensing. When dispensing is finished, turn off the pump.

15 MAINTENANCE

NOTE Maintenance must be performed only by authorized and properly trained personnel.

SAFETY WARNINGS Thanks to the design, the pump requires simple maintenance. Before carrying out any maintenance work, disconnect the pump from any electrical and hydraulic power source.

ONCE A WEEK: Check that the pipe connections are not loose to prevent any leaks.

ONCE A MONTH: Check and keep the filter installed on the suction line clean. Check the pump body and keep it clean and free of any impurities. Check that the electrical supply cables are in good condition. Check monthly for the presence of grease on the contact surface between terminal box cover and terminal box body.

16 NOISE LEVEL

Under normal working conditions the noise emission from all models does not exceed the value of 75 db at a distance of 1 meter from the electric pump.

17 PROBLEMS AND SOLUTIONS

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
THE MOTOR IS NOT TURNING	Lack of electric power	Check the electrical connections and the safety systems.
	Rotor jammed	Check for possible damage or obstruction of the rotating components.
	Motor problems	Contact the Service Department.
THE MOTOR TURNS SLOWLY WHEN STARTING	Low voltage in the electric power line	Bring the voltage back within the anticipated limits.
LOW OR NO FLOW RATE	Low level in the suction tank	Refill the tank.
	Foot valve blocked	Clean and/or replace the valve
	Filter clogged	Clean the filter
	Excessive suction pressure	Lower the pump with respect to the level of the tank or increase the cross-section of the tubing
	High loss of head in the delivery circuit (working with the by-pass open)	Use shorter tubing or of greater diameter
	By-pass valve blocked	Disassemble the valve, clean and/or replace it.
	Air entering the pump or the suction tubing	Check the seals of the connections
	A narrowing in the suction tubing	Use tubing suitable for working under suction pressure
	Low rotation speed	Check the voltage at the pump. Adjust the voltage and/or use cables of greater cross-section

18 DEMOLITION AND DISPOSAL

Foreword If the system needs to be disposed, the parts which make it up must be delivered to companies that specialize in the recycling and disposal of industrial waste and, in particular:

Disposing of packing materials

The packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose.

Metal Parts Disposal

Metal parts, whether paint-finished or in stainless steel, can be assigned to scrap metal collectors.

Disposal of electric and electronic components

These must be disposed of by companies that specialize in the disposal of electronic components, in accordance with the indications of directive 2012/19/EU (see text of directive below).

European Directive 2012/19/EU requires that all equipment marked with this symbol on the product and/or packaging not be disposed of together with non-differentiated urban waste. The symbol indicates that this product must not be disposed of together with normal household waste. It is the responsibility of the owner to dispose of these products as well as other electric or electronic equipment by means of the specific refuse collection structures indicated by the government or the local governing authorities.

19 EXPLODED VIEWS

20 OVERALL DIMENSION

21 TECHNICAL DATA

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22 CONNECTING THE PIPING

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4 Do not use conical threaded fittings, which could damage the threaded inlet or outlet openings of the pumps if excessively tightened.

5 If not already fitted, fit a suction filter

23 INITIAL START-UP

GETTING STARTED

1 Check that the quantity of diesel fuel in the suction tank is greater than the amount you wish to transfer.

2 Make sure that the residual capacity of the delivery tank is greater than the quantity you wish to transfer.

3 Do not run the pump dry. This can cause serious damage to its components.

4 Make sure that the tubing and line accessories are in good condition. Diesel fuel leaks can damage objects and injure persons.

5 Do not operate switches with wet hands.

24 VOLTAGE CONNECTIONS

25 CONNECTIONS

GENERAL WARNING Before installation and maintenance make sure that power supply to the electric lines has been turned off.

25.1 ELECTRICAL CONNECTIONS

Comply with the following (not exhaustive) instructions to ensure a proper electrical connection:

1 Before installation and maintenance make sure that power supply to the electric lines has been turned off.

2 Use cables with minimum cross-sections, rated voltages and installation type that are suitable for the characteristics indicated in paragraph TECHNICAL DATA.

3 Always close the cover of the terminal strip box before switching on the power supply, after having checked the integrity of the seal gaskets that ensure the IP55 protection grade.

4 Make sure the electrical connections are suitably protected.

26 CONNECTIONS

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26.1 ELECTRICAL CONNECTIONS

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PIUSI Fluid Handling Innovation

BI-PUMP

MADE IN ITALY

Käyttäjän asennusopas ja huolto FI

Installation, use and maintenance manual EN

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