



KOSHINPUMP.COM

PONSTAR

High Performance Submersible Pump

OPERATION MANUAL

《PX-55011 • PX-55022》

- Thank you for purchasing KOSHIN submersible pump.
- This manual is prepared for your safety when operating pump. Please read carefully and comprehend fully before use. (Wrong usage could cause injury or death.)
- Please keep this manual handy for future reference.

Please read this manual before operation.

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USE

Water feeding and discharging for construction and civil works; Water supply and sewage works; Various kinds of industrial facilities; Housing and building facilities, Flower gardening; Irrigation of seeds and nursery stock fields; Horticultural facilities; Water sprinkling, feeding and discharging for fish farm (fresh water); Watering in gardens; Feeding and discharging for fountains

INSTRUCTIONS FOR USE

1. Please check the type, aperture, output, frequency, and voltage indicated on the name plate attached to the upper part of the pump.
Pay close attention, in particular, to frequency and voltage as inadequate frequency and voltage can cause lower pump performance and troubles.
2. Place to use
The pump can be used at almost all places but avoid continuous short-water operation at a sandy place, as such may accelerate wear of the pump.
Try to install the pump at a position where water can be collected most easily. When the pump is installed on soft muddy or sandy ground, lay wooden board or block under the body to prevent setting down.
Strictly refrain from putting into any pond, bath, or swimming pool in which anybody is staying.
3. Hose piping
When any hose is used for connection, keep the hose as straight as possible as excessively bent hose reduces water quantity. Refrain from placing the discharge port under water. Inverse flow may sometimes be resulted due to siphon effect when the operation is stopped.
4. Cabtire cable
To transfer the pump or to install, hold the pump on the handle or a rope tied to the handle.
If the cabtire cable is pulled instead of the rope, the core wires may sometimes

be cut off. To extend the cable, use a cable of the same or larger size than the one attached to the pump. Strictly refrain from placing the joint between the main line and the extension in water.

5. Earth leakage breaker
Be sure to ground the earthing wire before connecting the cabtire cable to the power source. The green wire is for earthing. Be sure to attach the leakage breaker to prevent any possible leakage trouble.
6. Rotary direction of 3-phase pump
Turn on the switch while hanging the pump by one hand. If the reaction at turning-on of the switch is in the same direction as indicated on the body by an arrow, the pump rotates in the correct direction. (The arrow indicates the direction of reaction.)
If the reaction is in the opposite direction, replace any two wires each other.
7. After use
If the pump is left as it is after used for water of high sand content or other special substances, the sand is accumulated in the pump and will affect the next operation. Before stopping operation, therefore, be sure to keep pumping supernatant water or clean water for some time to clean out the inside.
8. Thermal protector
The pump incorporates a thermal protector to protect the motor, and the motor is stopped automatically at a over-load operation due to any reason.
When the motor stops automatically, be sure to check after turning off the power source.

MAINTENANCE AND INSPECTION

1. Periodically check the insulated condition with a megger tester. To be acceptable, the resistance between the earthing wire and the power cord should be 100M ohm and higher.
2. The shaft of the water-tight mechanism as the most critical part of the pump is sealed with liquid paraffin. The life changes greatly depending on the operating condition but the quantity should be checked periodically. Use 230cc of Kyoseki No. 2 or equivalent for the sealing. The liquid paraffin can be checked easily by removing the hexagon socket head bolt at a lower side of the pump body.

TROUBLE-SHOOTING

| | | |
|---|--|---|
| No start at all or stops immediately after start. | Malconnection of power circuit | Correct the connection. Check the power circuit. |
| | The leakage circuit breaker is actuated. | Repair the point of leakage. |
| | The impeller is caught by foreign substance. | Remove the foreign substance. |
| | Motor is burnt. | Repair or replace. |
| | Voltage drop. | Raise the voltage to the rating. |

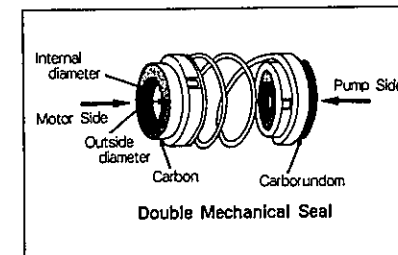
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|------------------------|----------------------------|--|
| Stops during operation | The protector is actuated. | Remove foreign substance if the impeller is clogged. |
| | | Lower the liquid temperature if it is too high. |

| | | |
|-----------------------------------|---|----------------------------------|
| No pumping or lowered performance | Voltage drop | Raise the voltage to the rating. |
| | Inverse rotation | Correct to forward rotation. |
| | High delivery head | Lower the head. |
| | Discharge pipe is clogged. | Overhauling |
| | Impeller wear | Replacement |
| | Clogging of foreign matter in strainer pump | Overhauling. |

CAUTION

The pump is used a double mechanical seal.(See Fig.)
Consulting the following table, assemble it.

| MECHANICAL SEAL | MOTOR SIDE (Carbon) | PUMP SIDE (Carborundom) |
|-------------------|---------------------|-------------------------|
| Outside diameter | 22.5mm | 20.5mm |
| Internal diameter | 18.5mm | 15.0mm |

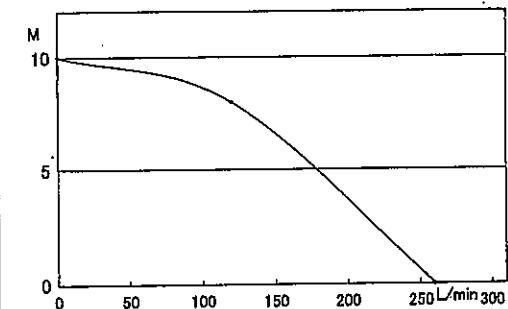


SPECIFICATION

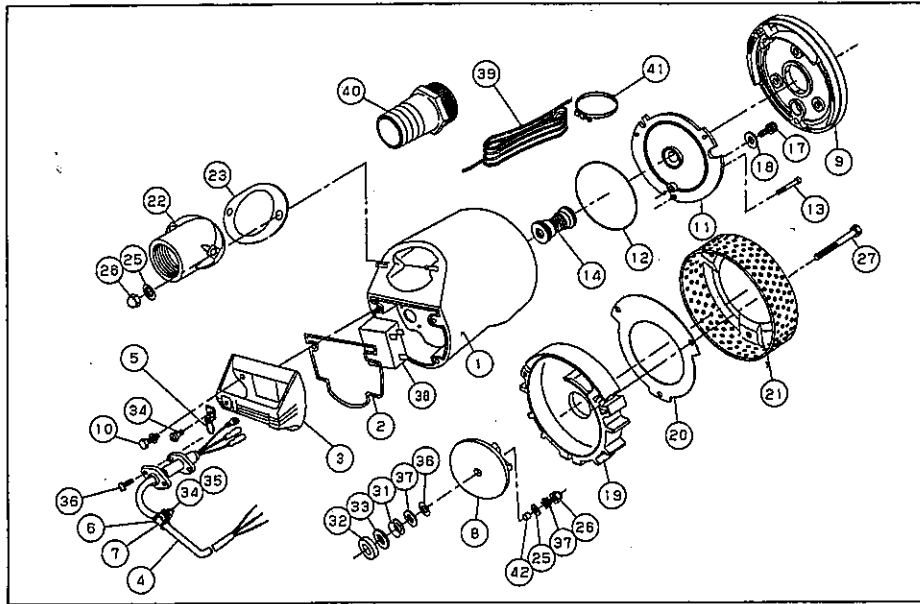
| Model | | PX-55011 | PX-55022 |
|--------------------|-------------------------------|------------------------------------|-------------|
| PUMP | Connection Dia | 50m/m (2") | |
| | Total Head | 10m | |
| | Delivery Volume | 260ℓ/min | |
| MOTOR | Voltage | Single 110V | Single 220V |
| | Frequency | 50Hz | |
| | Read Current | 6.5A | 3.2A |
| | Consumption of Electric Power | 580W | 620W |
| | Revolution | 3400rpm | |
| | Power Cord | 5m | |
| Net Weight | | 11kg | |
| Standard Accessory | | 5m Rope Nipple φ 60mm Hose Band | |

※Motive current sends about three times as much as rated current.

PERFORMANCE CURVE



PARTS LIST



| No. | PARTS No. | PARTS NAME | QTY |
|-----|-----------|---------------------------------|-----|
| 1 | 0438074 | PX-5011 400W Motor | 1 |
| 1 | 0438071 | PX-5022 400W Motor | 1 |
| 2 | 0430284 | PX-50 Head Packing | 1 |
| 3 | 0430268 | PX-50 Handle | 1 |
| 4 | 0430289 | PX-55011/55022-BAA Power Cord | 1 |
| | 0438105 | PX-55011/55022-BAB Power Cord | 1 |
| | 0438142 | PX-55022-BAC Power Cord | 1 |
| 5 | 0438066 | PX-50 Chain | 1 |
| 6 | 0390031 | PS-40 Cord Supporter | 1 |
| 7 | 0260018 | BL-3224 Cord Band | 1 |
| 8 | 0430285 | PX-50 50Hz Impeller | 1 |
| 9 | 0430273 | PX-50 Back Liner | 1 |
| 10 | 743605031 | Bolt | 4 |
| 11 | 0430271 | PX-50 Front Cover | 1 |
| 12 | 889955125 | O-ring | 1 |
| 13 | 734505037 | Socket Bolt | 3 |
| 14 | 0390003 | PS-40 Mechanical Seal | 1 |
| 15 | 0430300 | PX-50 Impeller Washer | 1 |
| 16 | 0390025 | PS-40 Impeller Adjusting Washer | 2 |
| 17 | 0390037 | PS-40 Socket Bolt | 1 |
| 18 | 854255010 | Seal Washer | 1 |
| 19 | 0430274 | PX-50 Casing | 1 |
| 20 | 0430269 | PX-50 Suction | 1 |

| No. | PARTS No. | PARTS NAME | QTY |
|-----|-----------|------------------------|-----|
| 21 | 0430270 | PX-50 Strainer | 1 |
| 22 | 0430305 | PX-50 Delivery Flange | 1 |
| 23 | 0430283 | PX-50 Delivery Packing | 1 |
| 24 | 0430290 | PX-50 Stud Bolt | 2 |
| 25 | 846205008 | Washer | 2 |
| 26 | 835305008 | Nut | 3 |
| 27 | 735705162 | Bolt | 3 |
| 28 | 0340142 | SM Seal Ring | 1 |
| 29 | 0340153 | SM + Screw | 1 |
| 30 | 0430301 | PX-50 Thrust Washer | 1 |
| 31 | 895154014 | Oil Seal | 1 |
| 32 | 0430299 | PX-50 Thrust Packing | 1 |
| 33 | 707820074 | + Screw | 1 |
| 34 | 703305100 | + Screw | 2 |
| 35 | 827305005 | Nut | 1 |
| 36 | 703305104 | + Screw | 2 |
| 37 | 845305008 | Toothed Washer | 1 |
| 38 | 0430320 | Condenser 110V | 1 |
| | 0430347 | Condenser 220V | 1 |
| 39 | 0398020 | 5m Rope | 1 |
| 40 | 0390213 | Nipple | 1 |
| 41 | 940019060 | φ 60 Hose Band | 1 |
| 42 | 0430441 | PX-50 Impeller Bush | 1 |

DIMENSION

UNIT : mm

