# ปั๊มน้ำยาเคมี Sanso PMD (Magnet pump Series)

[ For chemical and sea water สำหรับเคมีและน้ำทะเล ]

# International protection(IP44) High Power Type



\* ปั๊มน้ำยาเคมีและสูบน้ำทะเล Sanso "ซันโซ่" PMD Magnet pump series High power แบบ International protection (IP44) กำลังมอเตอร์ไม่ต่ำกว่า 1.5 kw.





PMD-15013A · B

PMD-22013A · B

PMD-37013B

#### ■Features of new models

Efficiency About 35% improved

•Electric power costs About 20% can be reduced

Noise About less 5dB than conventional models
Vibration About 50% less than conventional models
Small and light About 10% lighter than conventional models

# ■Application การใช้งานโดยทั่วไป

- Circulation of sea water
- Culture tank and water tank
- •Waste water treatment equipment
- Drain chemical liquid
- Aquarium equipment
- •PCB equipment
- Solar heating system
- Filter
- •Bubble bath
- Etching equipment
- Photo development equipment
- •Transfer of chemical liquid
- Cooling of NC machine
- •Ice maker etc.

## ■Characteristics

- Magnet type
- Totally enclosed indoor type motor
- Corrosion resistance performance
- •Small size and excellent performance

#### ■Features

- Long life
- Complete liquid leakage free
- Excellent corrosion resistance
- Varieties of models

### ■Materials for pump parts

| Part name     | For chemical liquids and sea water |  |  |  |  |  |
|---------------|------------------------------------|--|--|--|--|--|
| Casing        | Poly-Propylene with glass fiber    |  |  |  |  |  |
| Back casing   | Poly-Propylene with glass fiber    |  |  |  |  |  |
| Impeller      | Poly-Propylene with glass fiber    |  |  |  |  |  |
| Pump shaft    | Ceramic                            |  |  |  |  |  |
| Thrust washer | Ceramic                            |  |  |  |  |  |
| Bearing       | Teflon                             |  |  |  |  |  |
| O-ring        | FKM (Fluoro rubber)                |  |  |  |  |  |

#### **Excellent characteristics**

#### **♦**Shaft

- •Endurance of shaft is much improved because of being supported from both sides.
- •Shaft can be changed individually.
- •SIC with excellent endurance is available, if required.

## **♦**Back casing

- •Special structure of rear casing and structure of impeller for preventing the air retention is excellent against the air lock.
- Endurance of rear casing is much improved, because carbon fiber is used for reinforcing the rear casing.
- ◆Exclusive motor (with terminal box)
- •This pump can be used in the chemical environment, because reinforced plastics is used for terminal box.
- •Wiring works are easy, because terminal box is equipped at the upside of pump.
- •Oil seal is used against gas and liquid leakage to prevent the motor corrosion.

Lifetime is much improved.

## ◆Impeller and magnet

- •Strong rare earth magnet is used for over 1.5Kw.
- Problem in high temperature and reverse rotation can be prevented, because impeller and magnet is coupled.
- Efficiency id improved because of special impeller.

## ◆Loose flange

•Loose flange is used to be adjusted to the opposite side.

## Sanso PMD (Magnet pump Series High power) for chemical and hot water Specifications

|                  |          | Maximum   |      | Rated     | Motor           |                    |         | \\/-:- -t |
|------------------|----------|-----------|------|-----------|-----------------|--------------------|---------|-----------|
| Model            | Diameter | Flow Rate | Head | Flow Rate | Rated<br>Output | Power<br>Consumpti | Voltage | Weight    |
|                  |          | L/min     | m    | m-L/min   | kw              | kw                 | V       | kg        |
| PMD-15013 (50Hz) | 50Ax40A  | 430       | 26   | 15-320    | 1.5             | 1.7                | 200     | 27        |
| PMD-15013 (60Hz) | 50Ax40A  | 420       | 26   | 20-310    | 1.5             | 1.6                | 200     | 27        |
| PMD-22013 (50Hz) | 50Ax40A  | 480       | 30   | 20-320    | 1.9             | 2.2                | 200     | 29        |
| PMD-22013 (60Hz) | 50Ax40A  | 470       | 32   | 20-320    | 1.9             | 2.2                | 200     | 29        |
| PMD-37013 (60Hz) | 50Ax40A  | 550       | 39   | 25-410    | 3               | 3.7                | 200     | 52        |

#### Note

- 1. PMD-37013 (50Hz) is not available.
- 2. Voltage can be adjusted to customer's requirement.

## Sanso PMD (Magnet pump Series High power) Performance Curve





