

ABS submersible sewage pumps AFP-ME4 to ME6 SX

ABS stainless steel submersible sewage pumps, series AFP-ME, SX version are suitable for aggressive clear and wastewater, for sewage with sludge containing solids and fibrous material.

50 Hz

Construction

- Complete unit is encapsulated with stainless steel. All medium contact parts are made of corrosion resistant materials
- The water-tight fully flood-proof motor and the pump section form a compact and robust unit
- Water pressure sealed connection chamber, with two stage cable entry, protected against excessive cable tension and bending
- Bimetallic thermal sensors in the stator which open at 140 °C
- Rotor and rotor shaft dynamically balanced, upper and lower bearings lubricated-for-life, maintenance-free
- Blockage- and maintenance-free internal closed looped cooling system. Cooling medium: Glycol - water mixture
- Double shaft sealing
- Lower sealing by means of a silicon carbide mechanical seal, independent of the direction of rotation
- Upper mechanical seal (silicon carbide) in case of motor size ME4 and (carbon/chrome steel) in case of motor size ME5 and ME6, independent of direction of rotation
- Separation chamber with sensor for moisture protection to indicate water leakage through mechanical seal
- Hydraulic parts with open or closed 2- or 3-channel impellers
- These pumps are available both in standard and explosion-proof versions in accordance with international standards e.g. Ex d IIB T4/ATEX II 2Gk

Motor

Water pressure sealed high efficiency motors, (3-phase, squirrel cage induction motors) with efficiency class II, from 15 to 250 kW and, depending on hydraulic requirements as 4- to 8-pole versions

Voltage: 400 V3~, 50 Hz (other voltages on request)

Insulation class: H (motor winding protected by temperature sensor 140 °C)

Protection type: IP68

Start-up: direct on line (DOL), soft starter or star-delta



Hydraulics

You have the choice of the following hydraulics in the range of DN 100 to DN 500 discharge:

Hydraulics / Impeller type

| | | | |
|-------------|--------|-------------|--------|
| AFP 1001 SX | 1 | AFP 3001 SX | 1 |
| AFP 1077 SX | 2 (CB) | AFP 3002 SX | 1 |
| AFP 1501 SX | 1 | AFP 3003 SX | 1 |
| AFP 1575 SX | 2 (CB) | AFP 3071 SX | 4 (CB) |
| AFP 2001 SX | 1 | AFP 3501 SX | 3 |
| AFP 2002 SX | 1 | AFP 3502 SX | 3 |
| AFP 2073 SX | 2 (CB) | AFP 4001 SX | 1 |
| AFP 2501 SX | 1 | AFP 4004 SX | 3 |
| AFP 2571 SX | 2 (CB) | AFP 5001 SX | 4 |

1 = 2-channel, closed; 2 = 2-channel, open; 3 = 3-channel, closed; 4 = 3-channel, open

Pump selection

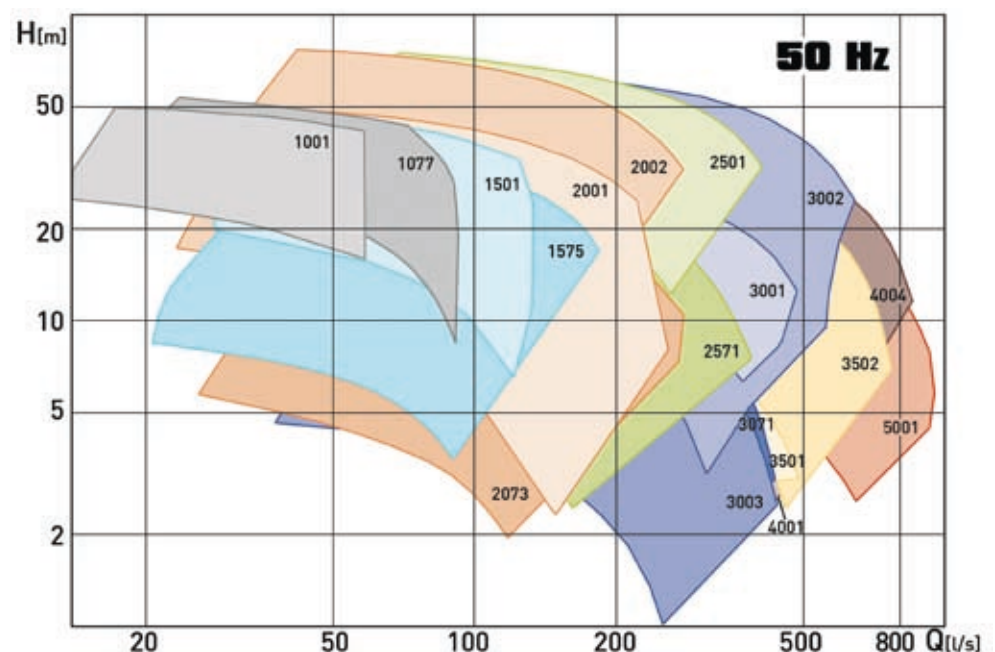
For pump selection please use our ABSEL programme

Duty point --> Selection of hydraulics --> Choice of motor

Hint

More detailed information like dimension drawings, electrical data, etc. is also available from the ABSEL CD.

Performance fields



Standard and options

| Description | Standard | Option |
|------------------------------------|---|---|
| Max. ambient temperature | 40 °C | |
| Max. submergence depth | 20 m | |
| Mains voltage | 380...420 V/50 Hz | 230 V (not all versions), 690 V/50 Hz |
| Voltage tolerance | ±10% on 400 V | |
| Insulation class | H (140) | H (160) |
| Start-up | DOL, star-delta or soft starter | |
| Approval | | Ex/ATEX |
| Cables | S1BN8-F | EMC shielded cables |
| Cable length | 10 m | 15 m, 20 m, other length on request |
| Mechanical seal (medium side) | ME4 to ME6 SiC-SiC (NBR) | SiC-SiC (Viton execution) |
| Mechanical seal (motor side) | ME4 SiC-SiC, ME5/6 carbon chrome steel | |
| O-rings | NBR | Viton |
| Preparation for lifting hoist | Lifting hoop | Eyelet bolts |
| Installation | Wet-well | Dry-well vertical/horizontal (only with cooling jacket) |
| Motor cooling | Internal closed looped cooling system | |
| Moisture sensor motor housing | DI (sensor for moisture detection) (only ME6) | DI (sensor for moisture detection) |
| Moisture sensor separation chamber | DI (sensor for moisture detection) not for Ex | External DI for Ex* |

*Upon request for motors with Ex approbation the DI must be ordered additionally

Motor protection

X = Standard; 0 = Option; - = not possible

| ME4 to ME6 | | Standard | Ex | FM |
|--|--------------------|----------------|----------------|----------------|
| Winding | Bi-metallic switch | X | X | X |
| | Thermistor (PTC) | 0 | 0 | 0 |
| | PT 100 | 0 | - | - |
| Seal protection | Separation chamber | X | 0 | X |
| | Motor housing | 0 (X only ME6) | X | 0 (X only ME6) |
| | Connection box | 0 (X only ME6) | 0 (X only ME6) | 0 (X only ME6) |
| Temperature bearing upper/lower | Bi-metallic switch | 0 (X only ME6) | 0 (X only ME6) | 0 (X only ME6) |
| | Thermistor (PTC) | 0 | 0 | 0 |
| | PT 100 | 0 | 0 | 0 |

Materials

| Motor | Standard |
|---------------------------------|----------------------|
| Connection chamber | 1.4470 (AISI 329) |
| Cooling chamber | 1.4470 (AISI 329) |
| Cooling jacket | 1.4571 (AISI 316 Ti) |
| Motor housing | EN-GJL-250 |
| Motor shaft | 1.4462 |
| Fasteners (medium contacted) | 1.4401 (AISI 316) |
| Lifting hoop | 1.4470 (AISI 329) |
| Connection systems (wet) | Standard |
| Pedestal | 1.4470 (AISI 329) |
| Fastening elements | 1.4401 (AISI 316) |
| Guide rail | 1.4571 (AISI 316 Ti) |
| Pipe retainer | 1.4408 (CF-8M) |
| Connection systems (dry) | Standard |
| Support frame | 1.4571 (AISI 316 Ti) |

| Hydraulics | Standard |
|------------|-------------------|
| Volute | 1.4470 (AISI 329) |
| Impeller | 1.4470 (AISI 329) |
| Wear ring | 1.4581 |
| Washer | 1.4462 |
| Fasteners | 1.4401 (AISI 316) |