# NOCCHI MINIVORT P
## ELECTRIC SUBMERSIBLE VORTEX PUMPS FOR SEWAGE WORKS

MINIVORT P pumps are constructed entirely in cast iron and are designed for continuous duty in fixed installations. Designed for vortex operation, with retracted impeller. Rugged and reliable.

### MOTOR

- Dry motor.
- Protection rating IP 68.
- Insulation class F.
- Single phase power supply with permanently activated capacitor and thermal cutout protection incorporated in the motor winding.
- Three phase power supply with external protection to be fitted by the user.
- Self-lubricating ball bearings.
- Rotation speed 2850 rpm (P2).
- Rotation speed 1450 rpm (P4).

### APPLICATIONS

- Lifting and draining of waste water; civil and industrial sewage works with suspended solid bodies.
- Emptying of septic tanks, cess pits, handling of waste and sewage water.
- Lifting stations with one or more pumps for industrial and civil complexes.

### APPLICATION DATA

- Type of liquid: waste water, slurry and sewage.
- Maximum liquid temperature: 40°C.
- Maximum immersion below water level: 7m.
- Minimum drainage level 45 mm (on manual version).
- Free transit of solid bodies: 52 mm.

### DESIGN SPECIFICATIONS

- Automatic single phase version with float switch and watertight electrical panel, incorporating capacitor, thermal cutout protection and manual/automatic switching module. 10 m H07 RN-F power cable.
- Three phase version, 10m H07 RN-F power cable.
- Flanged outlet port, with square threaded counter-flange, 2" female.



### TABLE OF MATERIALS

| | Component | Material | |
|---|---|---|---|
| 1 | Pump body | Grey cast iron EN GJL 200 (ex G20) | |
| 2 | Motor body | Grey cast iron EN GJL 200 (ex G20) | |
| 3 | Support base | Grey cast iron EN GJL 200 (ex G20) | |
| 4 | Impeller | Grey cast iron EN GJL 200 (ex G20) | |
| 5 | Motor shaft | Stainless steel X 12 CrNiS 1809 (AISI 416) | |
| 6 | Mechanical gasket | | Lubricated in oil chamber |
| 7 | Counterface | Ceramic | |
| 8 | Lip seal | Rubber NBR 70 | |

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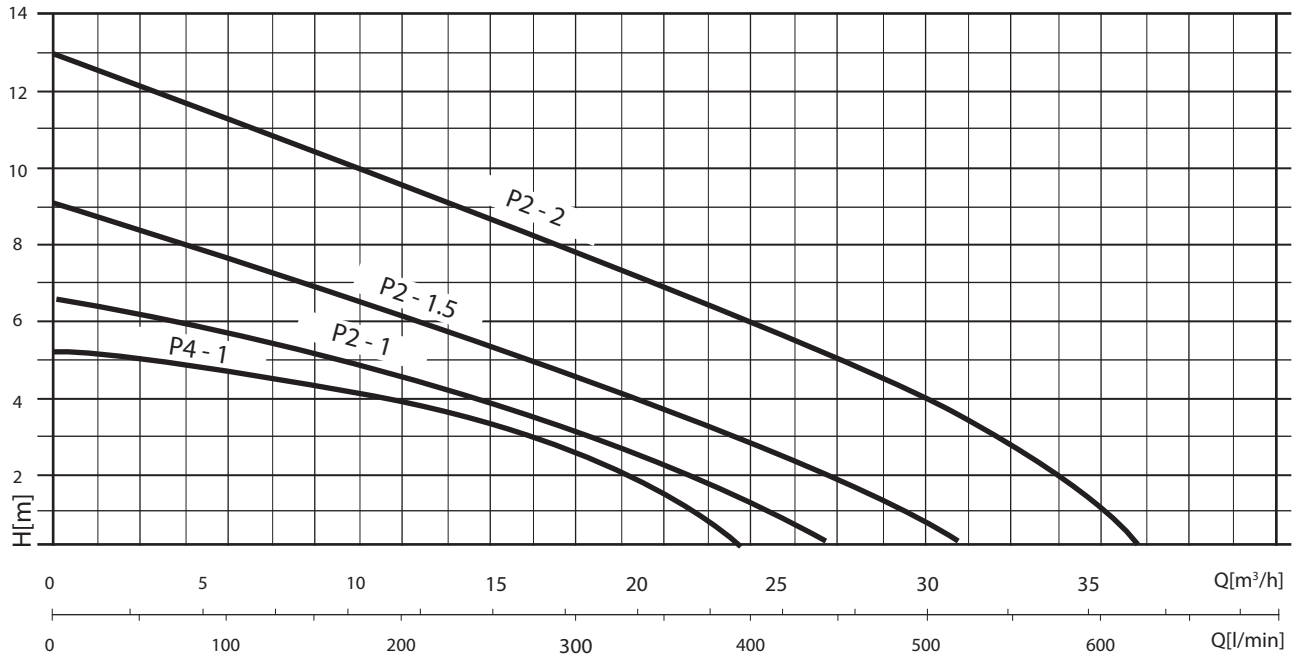
### HYDRAULIC PERFORMANCE




| MODEL | Motor output (P2) | | Power Motor (P1) | | VOLT | In (A) | µF | Q | L/min | 50 | 100 | 200 | 300 | 400 | 500 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HP | kW | HP | kW | | | | | m³/h | 3 | 6 | 12 | 18 | 24 | 30 |
| MINIVORT P2 - 1 M<br>MINIVORT P2 - 1 M AUT<br>MINIVORT P2 - 1 T | 1 | 0.75 | 2 | 1.5 | 1 ~ 220 - 240 V<br>1 ~ 220 - 240 V<br>3 ~ 400 V | 6.5<br>6.5<br>2.3 | 20<br>20 | m.c.a. / m.w.c. | | 6 | 5.4 | 4.1 | 3 | 1 | 0 |
| MINIVORT P2 - 1.5 M<br>MINIVORT P2 - 1.5 M AUT<br>MINIVORT P2 - 1.5 T | 1.5 | 1.1 | 2.2 | 1.6 | 1 ~ 220 - 240 V<br>1 ~ 220 - 240 V<br>3 ~ 400 V | 7<br>7<br>2.7 | 25<br>25 | | | 8.3 | 7.5 | 6.1 | 4.6 | 2.8 | 1 |
| MINIVORT P2 - 2 M<br>MINIVORT P2 - 2 M AUT<br>MINIVORT P2 - 2 T | 2 | 1.5 | 3 | 2.2 | 1 ~ 220 - 240 V<br>1 ~ 220 - 240 V<br>3 ~ 400 V | 9.8<br>9.8<br>3.2 | 35<br>35 | | | 12.1 | 11.3 | 9.8 | 8 | 6 | 3.7 |
| MINIVORT P4 - 1 M<br>MINIVORT P4 - 1 M AUT<br>MINIVORT P4 - 1 T | 1 | 0.75 | 1.7 | 1.25 | 1 ~ 220 - 240 V<br>1 ~ 220 - 240 V<br>3 ~ 400 V | 5.5<br>5.5<br>2.3 | 25<br>25 | | | 5 | 4.6 | 3.3 | 2.2 | | |

MINIVORT P2 : 2-pole motor 2850 rpm

MINIVORT P4 : 4-pole motor 1450 rpm

### OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions (mm) | | | | | Weight (kg) |
|---|---|---|---|---|---|---|
| | A | B | C | D | DNM | |
| MINIVORT P2-1 | 45 | 440 | 85 | 235 | 2" | 27 |
| MINIVORT P2-1.5 | 45 | 440 | 85 | 235 | 2" | 27 |
| MINIVORT P2-2 | 45 | 440 | 85 | 235 | 2" | 28 |
| MINIVORT P4-1 | 45 | 440 | 85 | 235 | 2" | 27 |

