Submersible drainage pump
J 205

Specification
Electric submersible pump.
Maximum submergence: 20 m. Protection class IP 68.
Max temperature of pumped medium at max power input and continuous duty 40 °C.
Max medium density 1100 kg/m³. pH of the pumped medium 5-8.
Strainer hole: 8 x 34 mm. Max number of starts 30/hour.

J 205 ND  Medium head, 3-phase
J 205 HD  High head, 3-phase

Electric motor
3-phase squirrel-cage induction motor, 50 Hz.
Service factor 1.1. Class F insulation.
Motor rating $P_2$: 21.0 kW. Speed: 2910 rpm.

<table>
<thead>
<tr>
<th>Voltage, V</th>
<th>230</th>
<th>400</th>
<th>500-550</th>
<th>690</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal current, A</td>
<td>66</td>
<td>39</td>
<td>31.2</td>
<td>23</td>
<td>16</td>
</tr>
</tbody>
</table>

Starting method and motor protection
D.O.L. start with built-in contactor (1000 V with terminal block).
D.O.L. start with built-in SoftDrive (400 V).
Star-Delta start with built-in terminal block.
When used with VFD, pump must be equipped with terminal block instead of contactor.

Power cable
20 m type H07RN8-F (standard cable):
4 x 4 sq.mm. (690 V DOL-start)
4 x 10 sq.mm.(400-550 V DOL-start)
4 x 16 sq.mm.(230 V DOL-start)
10 x 2.5 sq.mm. (690 V star-delta start)
2-4 x 6 sq.mm. + 4 x 1.5 sq.mm. (400-550 V star-delta start)
2-4 x 10 sq.mm. + 4 x 1.5 sq.mm. (230 V star-delta start)

20 m type NSSHÖU.../3E (heavy duty cable):
3x6+3x6/3E+3x1.5 (3 control cables incl.) (690-1000 V DOL-start)
3x10+3x10/3E+3x2.5 (3 control cables incl.) (400-550 V DOL-start)

Motor protection
Built-in thermal switches in the stator windings (140°C, ±5), connected to built-in contactor, SoftDrive or to separate control box.
DI leakage sensor (not in combination with built-in contactor or SoftDrive).

Shaft seal
Double mechanical seal in oil bath, mounted in seal cartridge for easy service.
Primary seal: Silicon carbide on silicon carbide.
Secondary seal: Silicon carbide on antimony treated carbon.

Bearings
Upper bearing: Single-row deep groove ball bearing.
Lower bearing: Double angular contact ball bearing.

Discharge connections
4" (standard HD), 6" (standard ND), 8" hose connections.
4", 6", 8" Gr/B.S.P. threaded connections.

Weight
155 kg (without cable)

Options and accessories
Zinc anodes. Surface protection coating.
Wear plate in polyurethane. Electronic motor supervision.
Series connection. Starter and control units.
Automatic level control unit. Floatation system. Repair kit.
Discharge connection accessories and hose.
## Materials

<table>
<thead>
<tr>
<th>Description</th>
<th>Material</th>
<th>EN</th>
<th>ASTM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing and castings</td>
<td>Aluminium</td>
<td>EN 1706:AC-43100</td>
<td>ASTM AlSi10mg</td>
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<tr>
<td>Strainer / Handle / Fasteners</td>
<td>Stainless steel</td>
<td>10088:X5CrNi18-10 (1.4301)</td>
<td>AISI 304</td>
</tr>
<tr>
<td>Shaft</td>
<td>Stainless steel</td>
<td>10088:X20Cr13 (1.4021)</td>
<td>AISI 420</td>
</tr>
<tr>
<td>Impeller</td>
<td>White cast iron</td>
<td>EN-GJN-HV600(XCr23)</td>
<td>ASTM A 532; Alloy III A</td>
</tr>
<tr>
<td>Wear parts / O-rings</td>
<td>Nitrile rubber</td>
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</tbody>
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