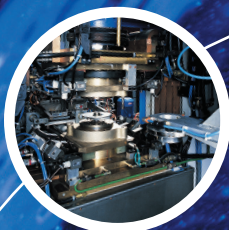


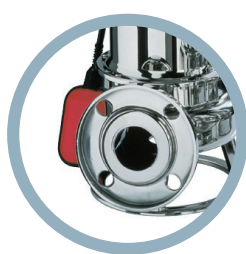
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DW-DW VOX



Submersible Sewage Pumps







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DW-DW VOX

SUBMERSIBLE PUMPS FOR DIRTY WATER

SPECIFICATIONS



Submersible sewage pump made of stainless steel AISI 304, with double mechanical seal that ensures long life and reliability. Suitable for sewage and dirty water systems with solids. Applications include remote sewage stations for housing developments, pubs, hotels and restaurants, and water displays. Options include with - without float switch. Solids handling up to 50 mm.

APPLICATIONS

- Food plants
- Air treatment plants
- Washing plants
- Moderately aggressive fluids pumping

TECHNICAL FEATURES

- Double mechanical seal with interposed oil chamber
- Reliability
- Vortex or single channel impeller
- Easy installation
- Completely AISI 304
- 10 m power cable length
- With or without float switch
- Versatile with treated or flanged connection
- Customizable for various applications

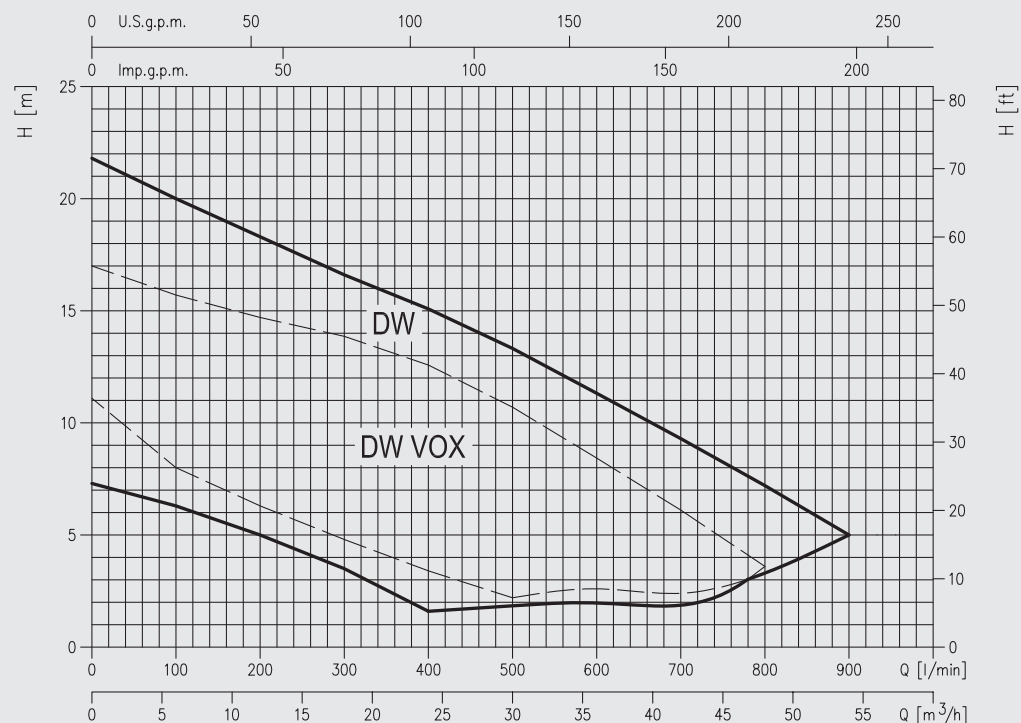
SPECIFICATIONS

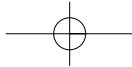
- Maximum liquid temperature: 40°C
- Maximum immersion: 10 m
- Maximum passage of solids: 50 mm
- Capacity up to 55 m³/h
- Total head up to 22 m

MATERIALS

- Pump casing, impeller, cover, casing cover and motor casing in AISI 304
- Shaft in AISI 303
- Double mechanical seal with interposed oil chamber: upper in carbon/ceramic/NBR, lower in Sic/SiC/NBR.

PERFORMANCE CHART

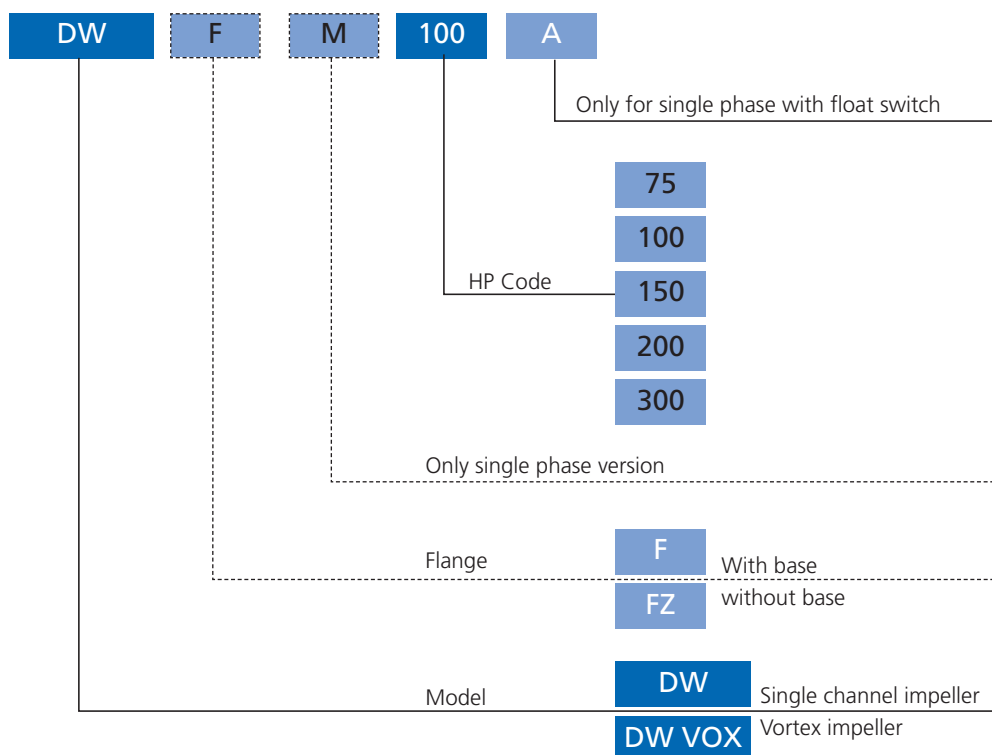




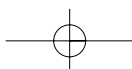
DW-DW VOX SUBMERSIBLE PUMPS FOR DIRTY WATER SPECIFICATIONS



TYPE KEY



| PERFORMANCE TABLE | | | | | | | | | | | | | | | | |
|---------------------------|--------------------------|------|-----------|-----|----------------------|------------|----------------------------|------------|------|------|------|------|-----|-----|-----|-----|
| Pump type | | kW | Capacitor | | Absorbed Current (A) | | l/min m ³ /h | Q=Capacity | | | | | | | | |
| Single-phase 230V 50Hz | Three-phase 400V 50Hz | | μF | Vc | 1~ | 3~ 400V | | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
| | | | | | | | H=Total head | | | | | | | | | |
| | | | | | | | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | |
| DW 75 M | DW 75 | 0,55 | 20 | 450 | 3,9 | 1,5 | 8 | 6,3 | 4,8 | 3,4 | 2,2 | - | - | - | - | |
| DW 100 M | DW 100 | 0,75 | 25 | 450 | 5,9 | 2,1 | 10,6 | 8,7 | 7,1 | 5,5 | 4 | 2,6 | - | - | - | |
| DW 150 M | DW 150 | 1,1 | 31,5 | 450 | 7,3 | 2,8 | 13,1 | 11,3 | 9,5 | 7,7 | 5,9 | 4,2 | 2,4 | - | - | |
| - | DW 200 | 1,5 | - | - | - | 3,6 | 16,6 | 15 | 13,3 | 11,4 | 9,5 | 7,5 | 5,4 | 3,3 | - | |
| - | DW 300 | 2,2 | - | - | - | 5,0 | 20 | 18,3 | 16,6 | 15,1 | 13,3 | 11,3 | 9,3 | 7,2 | 5 | |
| DW VOX 75 M | DW VOX 75 | 0,55 | 20 | 450 | 3,9 | 1,4 | 6,3 | 5 | 3,5 | 1,6 | - | - | - | - | - | |
| DW VOX 100 M | DW VOX 100 | 0,75 | 25 | 450 | 5,8 | 2,1 | 7,9 | 6,7 | 5,3 | 3,7 | 1,9 | - | - | - | - | |
| DW VOX 150 M | DW VOX 150 | 1,1 | 31,5 | 450 | 7,3 | 2,8 | 10,2 | 9 | 7,6 | 6,1 | 4,1 | 2,1 | - | - | - | |
| - | DW VOX 200 | 1,5 | - | - | - | 3,3 | 12,5 | 11,2 | 9,8 | 8,3 | 6,4 | 4,2 | 1,6 | - | - | |
| - | DW VOX 300 | 2,2 | - | - | - | 4,4 | 15,7 | 14,7 | 13,9 | 12,6 | 10,7 | 8,4 | 6,1 | 3,6 | - | |





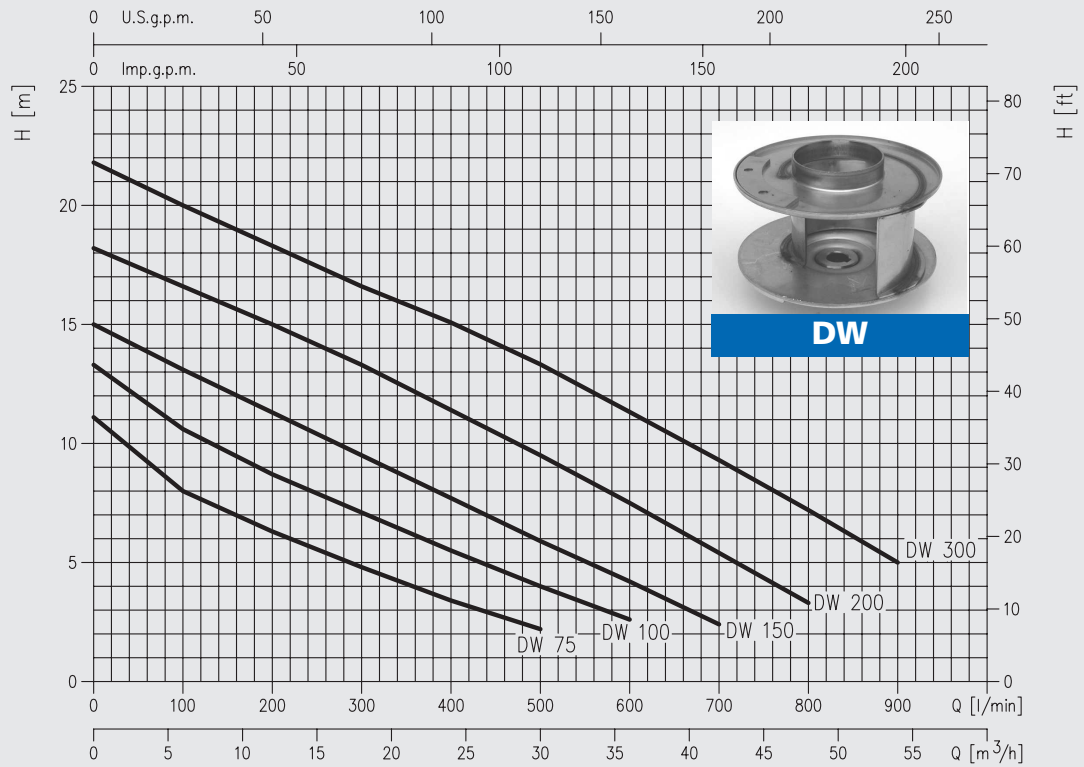
DW-DW VOX

SUBMERSIBLE PUMPS FOR DIRTY WATER

SPECIFICATIONS

DW 75 (0.55 kW) - Impeller diameter = 92
DW 100 (0.75 kW) - Impeller diameter = 99

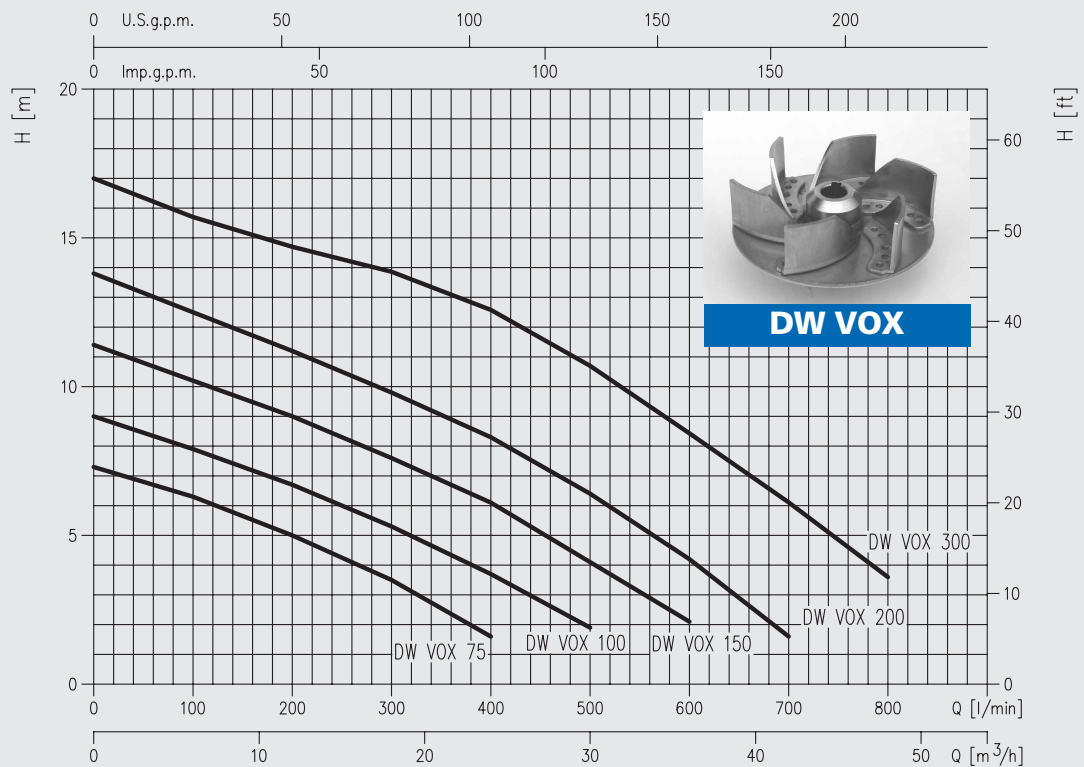
DW 200 (1.5 kW) - Impeller diameter = 114
DW 300 (2.2 kW) - Impeller diameter = 125



Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

DW VOX 75 (0.55 kW) - Impeller diameter = 88
DW VOX 100 (0.75 kW) - Impeller diameter = 88
DW VOX 150 (1.1 kW) - Impeller diameter = 95

DW VOX 200 (1.5 kW) - Impeller diameter = 103
DW VOX 300 (2.2 kW) - Impeller diameter = 116.5



Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

DW-DW VOX**SUBMERSIBLE PUMPS
FOR DIRTY WATER****SPECIFICATIONS**

| PUMP | | |
|-----------------------------|---|--------------------------------|
| Liquid Handled | Type of liquid | Dirty water, sewage water |
| | Max temperature [°C] | 40 |
| | Max solids size [mm] | 50 spherical |
| Maximum immersion | [m] | 10 |
| Construction | Impeller | Single channel (DW) |
| | | Vortex (DW VOX) |
| | Shaft seal type | Double mechanical seal |
| | Bearing | Sealed ball bearing |
| Pipe Connection | Discharge-Flange | DW-DW VOX - G2 UNI ISO 228 |
| | | DWF-DW VOXF - Flange DN 50 |
| Material | Casing | AISI 304 |
| | Impeller | AISI 304 |
| | Casing cover | AISI 304 |
| | Shaft seal | Pump side: SiC/SiC/NBR |
| | | Motor side: Carbon/Ceramic/NBR |
| | Seal cover | AISI 304 |
| | Shaft | AISI 303 (wet extension) |
| Lubricating liquid | White mineral oil: Esso Marcol 172 (385 cc) | |
| Applicable standard of test | | ISO 9906 – Annex A |

| MOTOR | | | |
|-----------------------------|----------------------|--|--------------------------------|
| Type | | Submersible dry type | |
| | | Single Phase | Three Phase |
| No. of Poles | | 2 | |
| Rotation speed | [min ⁻¹] | ≈2800 | |
| Insulation Class | | F | |
| Protection degree | | IP 68 | |
| Power rating | [kW] | 0.55 ÷ 1.1 | 0.55 ÷ 2.2 |
| | [HP] | 0.75 ÷ 1.5 | 0.75 ÷ 3 |
| Frequency | [Hz] | 50 | |
| Voltage | [V] | 230 ±10% | 400 ±10% |
| Capacitor | | Built in | - |
| Over load protection | | Built in | Provided by the user |
| Float switch | | Optional | - |
| Float switch cable | material | H07RN-F | |
| | size | 3G1 | - |
| Casing material | | AISI 304 | |
| Base material/motor support | | AISI 304 | |
| Power cable | length | 10 | |
| | material | H07RN-F | |
| | size | 3G1 (up to 0.55 kW) 3G1.5 (from 0.75 to 1.1 kW) | 4G1.5 + 2x0.5 4G1.5 + 2x0.5 |
| Dimensions of cable entry | | Cable Gland | |



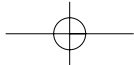
DW-DW VOX

SUBMERSIBLE PUMPS FOR DIRTY WATER

ELECTRICAL DATA

| DW | | | | | | | | | |
|-----------------------|----------------------|-------|------|--------------------|-----|-----------------|----------------|-------------------|----------------|
| TYPE PUMPS | | POWER | | CAPACITOR | | INPUT POWER | | FULL LOAD CURRENT | |
| Single Phase 230 V | Three Phase 400 V | [kW] | [HP] | Single Phase μF | Vc | Single Phase | Three Phase | Single Phase | Three Phase |
| 75 M | 75 | 0.55 | 0.75 | 20 | 450 | 0.9 | 0.85 | 3.9 | 1.5 |
| 100 M | 100 | 0.75 | 1 | 25 | 450 | 1.28 | 1.19 | 5.9 | 2.1 |
| 150 M | 150 | 1.1 | 1.5 | 31.5 | 450 | 1.57 | 1.55 | 7.3 | 2.8 |
| - | 200 | 1.5 | 2 | - | - | - | 2.08 | - | 3.6 |
| - | 300 | 2.2 | 3 | - | - | - | 2.9 | - | 5.0 |

| DW VOX | | | | | | | | | |
|-----------------------|----------------------|-------|------|--------------------|-----|-----------------|----------------|-------------------|----------------|
| TYPE PUMPS | | POWER | | CAPACITOR | | INPUT POWER | | FULL LOAD CURRENT | |
| Single Phase 230 V | Three Phase 400 V | [kW] | [HP] | Single Phase μF | Vc | Single Phase | Three Phase | Single Phase | Three Phase |
| 75 M | 75 | 0.55 | 0.75 | 20 | 450 | 0.88 | 0.80 | 3.9 | 1.4 |
| 100 M | 100 | 0.75 | 1 | 25 | 450 | 1.25 | 1.18 | 5.8 | 2.1 |
| 150 M | 150 | 1.1 | 1.5 | 31.5 | 450 | 1.58 | 1.57 | 7.3 | 2.8 |
| - | 200 | 1.5 | 2 | - | - | - | 1.92 | - | 3.3 |
| - | 300 | 2.2 | 3 | - | - | - | 2.4 | - | 4.4 |



DW-DW VOX

SUBMERSIBLE PUMPS FOR DIRTY WATER

ELECTRICAL DATA



DIAGRAM AND ELECTRIC CONNECTIONS SINGLE PHASE MOTOR WITHOUT FLOAT SWITCH

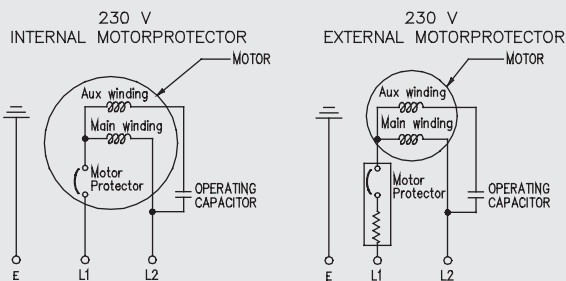
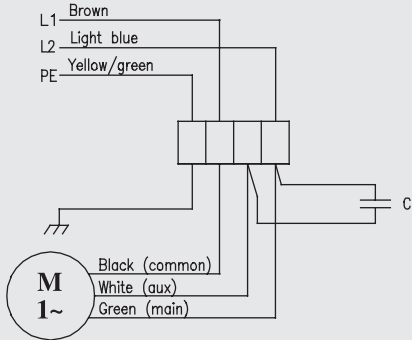
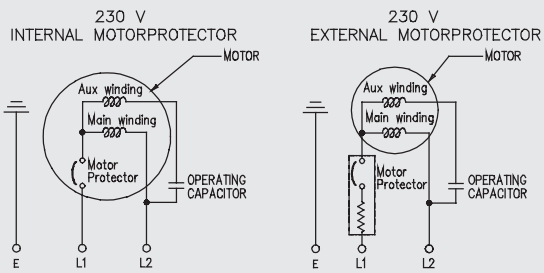
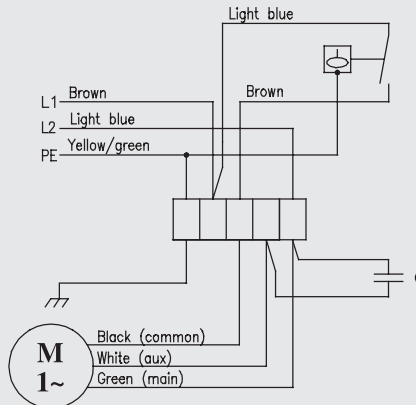


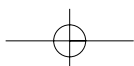
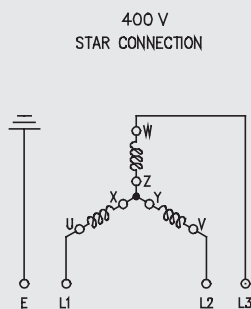
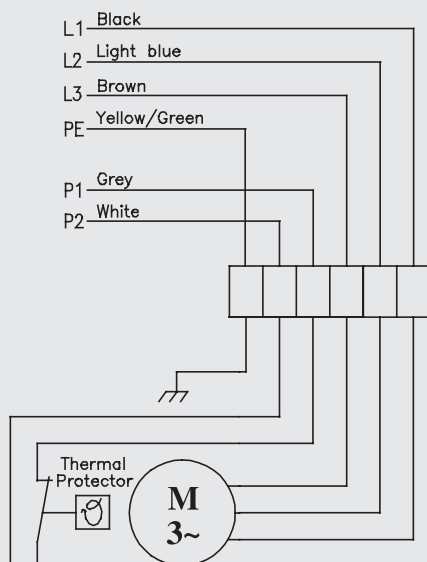
DIAGRAM AND ELECTRIC CONNECTIONS SINGLE PHASE MOTOR WITHOUT FLOAT SWITCH



| PUMP TYPE | MOTOPROTECTOR | |
|-----------|---------------|----------|
| | Internal | External |
| 75 M | • | |
| 100 M | • | |
| 150 M | • | • |

| PUMP TYPE | MOTOPROTECTOR | |
|-----------|---------------|----------|
| | Internal | External |
| 75 MA | • | |
| 100 MA | • | |
| 150 MA | | • |

DIAGRAM AND ELECTRIC CONNECTIONS THREE PHASE MOTOR



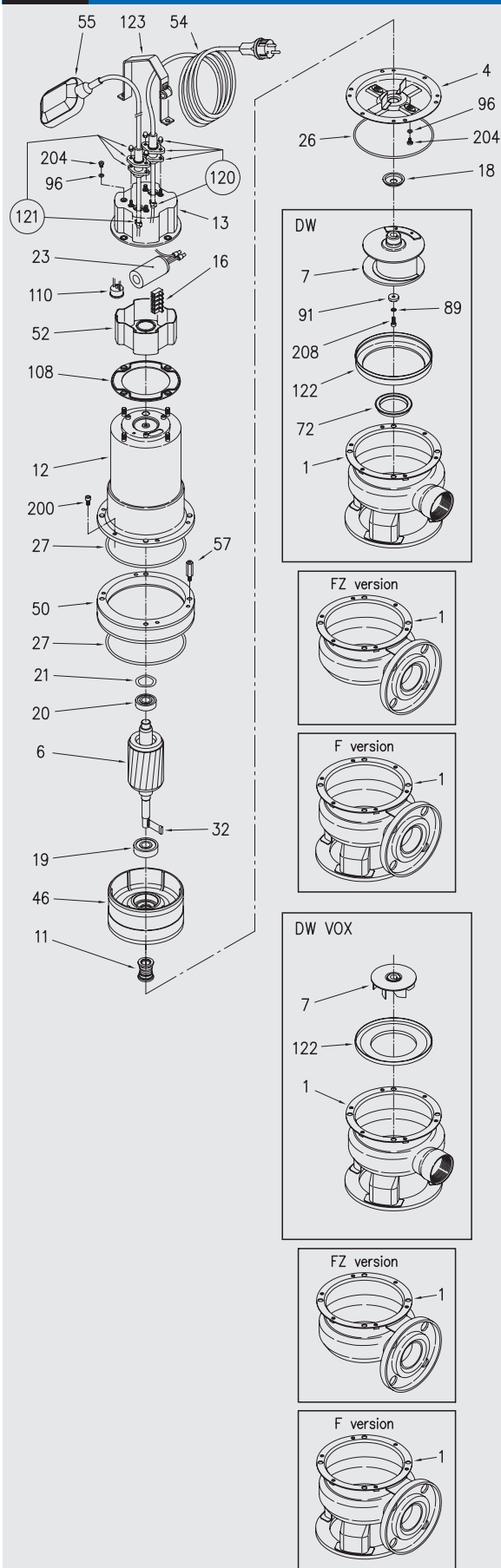


DW-DW VOX

SUBMERSIBLE PUMPS FOR DIRTY WATER

SECTIONAL VIEW

EXPLODED VIEW AND LIST OF COMPONENTS



| N° | PART NAME | MATERIAL | Q.TY |
|-----|----------------------------------|--------------------------------|--------|
| 1 | Casing | AISI 304 | 1 |
| 4 | Casing cover | AISI 304 | 1 |
| 6 | Shaft with rotor | AISI 303 | 1 |
| 7 | Impeller | AISI 304 | 1 |
| 11 | Mechanical seal | SiC/SiC/NBR | 1 |
| 11 | Mechanical seal | Carbon/Ceramic/NBR | 1 |
| 12 | Motor frame with stator | - | 1 |
| 13 | Motor cover | AISI 304 | 1 |
| 16 | Terminal | - | 1 |
| 18 | Mechanical seal protection [1] | AISI 304 | 1 |
| 19 | Lower side ball bearing | - | 1 |
| 20 | Upper side ball bearing | - | 1 |
| 21 | Adjusting ring | Steel C70 | 1 |
| 23 | Capacitor [2] | - | 1 |
| 26 | O ring | NBR | 1 |
| 27 | O ring | NBR | 1 |
| 27 | O ring [3] | NBR | 1 |
| 30 | Mechanical seal spacer | Brass | 1 |
| 32 | Key | AISI 304 | 1 |
| 46 | Bearing housing | G20 | 1 |
| 50 | Spacer [3] | G20 | 1 |
| 52 | Terminal insulating box | PA66 glass fibre reinforced | 1 |
| 54 | Power cable | - | 1 |
| 55 | Float switch [4] | - | 1 |
| 57 | Spacer [3] | AISI 304 | 4 |
| 72 | Casing ring [5] | NBR | 1 |
| 89 | Washer | AISI 304 | 1 |
| 91 | Washer [1] | AISI 304 | 1 |
| 96 | O ring | NBR | 3 |
| 97 | Power cable entry | NBR | 1 |
| 98 | Floating sw cable entry [4] | NBR | 1 |
| 104 | Cable guard [4] | NBR | 1 |
| 108 | Cover gasket | NBR | 1 |
| 110 | Protector [2] | - | 2 |
| 121 | Support for float switch [4] | AISI 304 | 1 |
| 122 | Impeller protection ring [6] | AISI 304 | 1 |
| 123 | Handle | AISI 304 | 1 |
| 127 | Power cable connector | AISI 304 | 1 |
| 128 | Floating sw. cable connector [4] | AISI 304 | 1 |
| 131 | Support for protector [7] | PA66 glass fibre reinforced | 1 |
| 133 | Support for probe [7] | Aluminium | 1 |
| 134 | Cover for support probe [7] | PA6 | 1 |
| 200 | Screw | Stainless steel A2 UNI 7323 | 6 |
| 204 | Screw | Stainless steel A2 UNI 7323 | 3 |
| 208 | Screw | Stainless steel A2 UNI 7323 | 1 |
| 218 | Nut | Stainless steel A2 UNI 7323 | 4 |
| 220 | Nut | Stainless steel A2 UNI 7323 | 4 |
| 260 | Lubricating liquid | White mineral oil | 385 cc |

[1] Except for DW-DW VOX 300

[2] Only for single phase

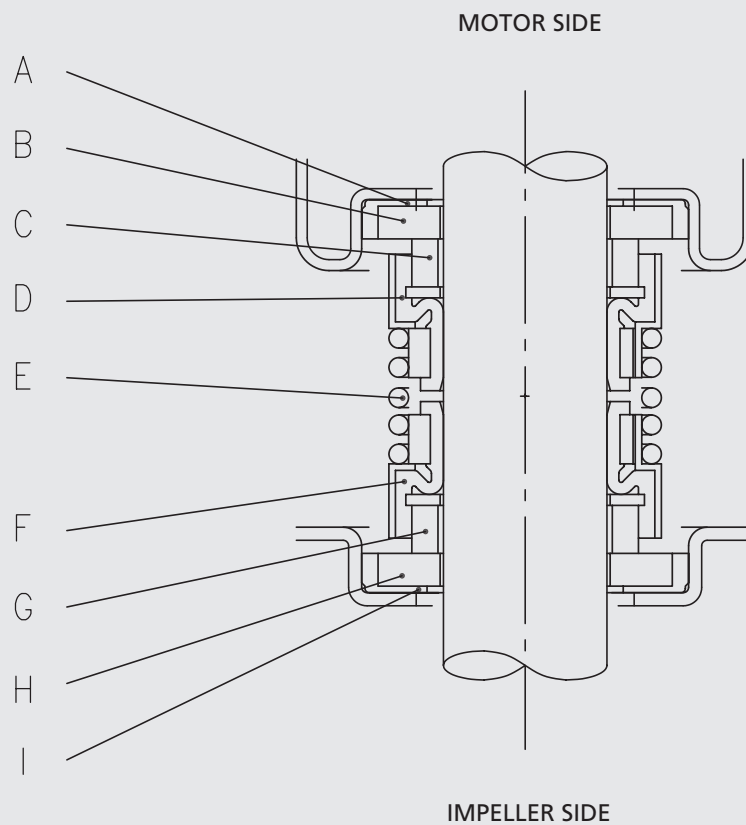
[3] Only for DW-DW VOX 300

[4] Only for single phase with float switch

[5] Only for DW

[6] Except for DW VOX 150, 200 and 300

[7] Only for single phase DW 150

MECHANICAL SEAL

| REF | PART NAME | MATERIAL |
|-----|------------|-----------------|
| A | Rubber cup | NBR |
| B | Seat | Ceramic |
| C | Seal face | Carbon |
| D | Bellow | NBR |
| E | Spring | AISI 304 |
| F | Bellow | NBR |
| G | Seal face | Silicon carbide |
| H | Seat | Silicon carbide |
| I | Rubber cup | NBR |

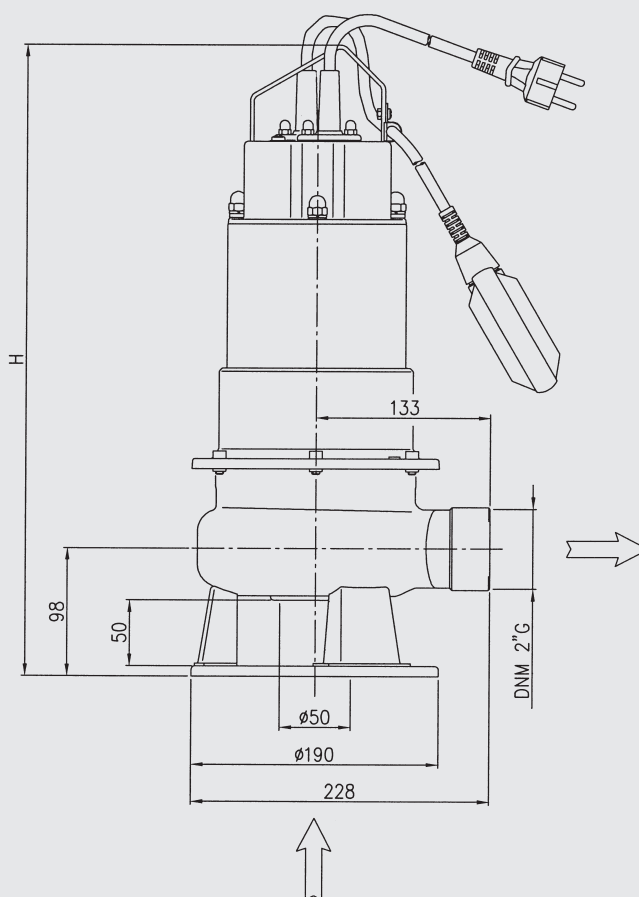


DW-DW VOX

**SUBMERSIBLE PUMPS
FOR DIRTY WATER**

DIMENSIONS

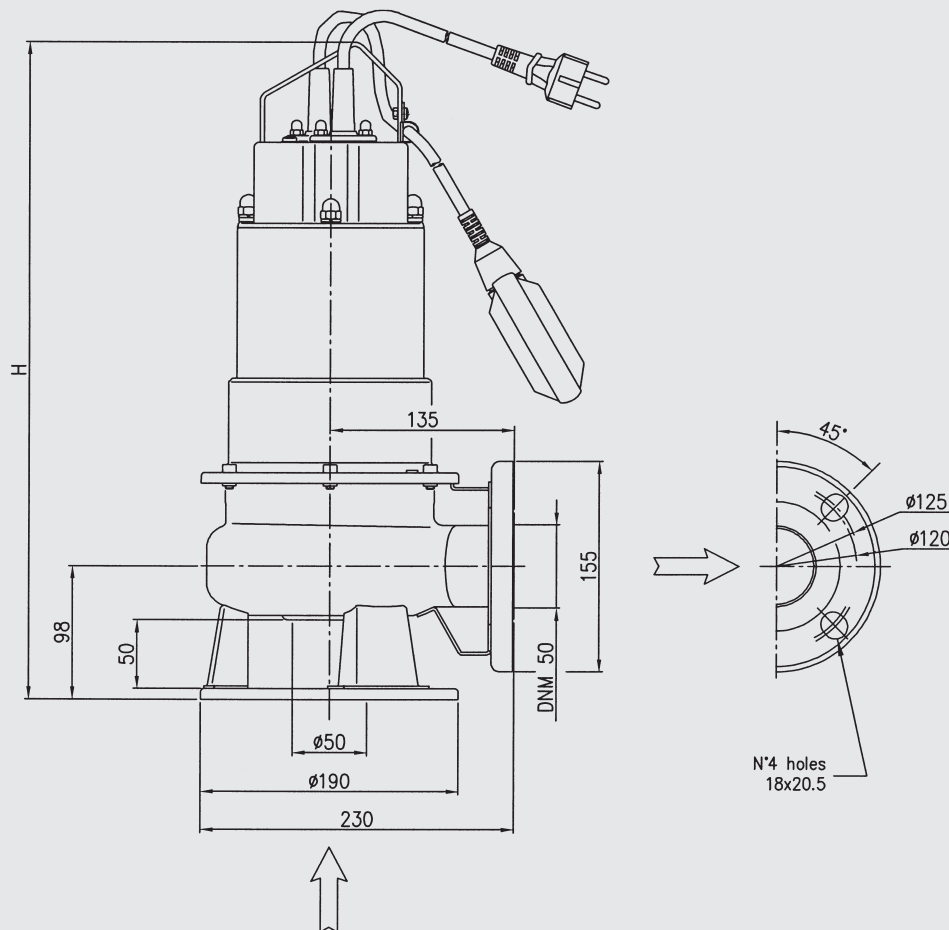
DW-DW VOX DIMENSIONS



| PUMP TYPE | H [mm] | |
|-----------|--------|-----|
| | 1~ | 3~ |
| DW 75 | 485 | 485 |
| DW 100 | 515 | 485 |
| DW 150 | 515 | 515 |
| DW 200 | - | 515 |
| DW 300 | - | 545 |

1~ = Single phase.

3~ = Three phase.

DW-DW VOX**SUBMERSIBLE PUMPS
FOR DIRTY WATER****DIMENSIONS****DWF-DW VOXF DIMENSIONS**

| PUMP TYPE | H [mm] | |
|-----------|--------|-----|
| | 1~ | 3~ |
| DWF 75 | 485 | 485 |
| DWF 100 | 515 | 485 |
| DWF 150 | 515 | 515 |
| DWF 200 | - | 515 |
| DWF 300 | - | 545 |

1~ = Single phase.

3~ = Three phase.

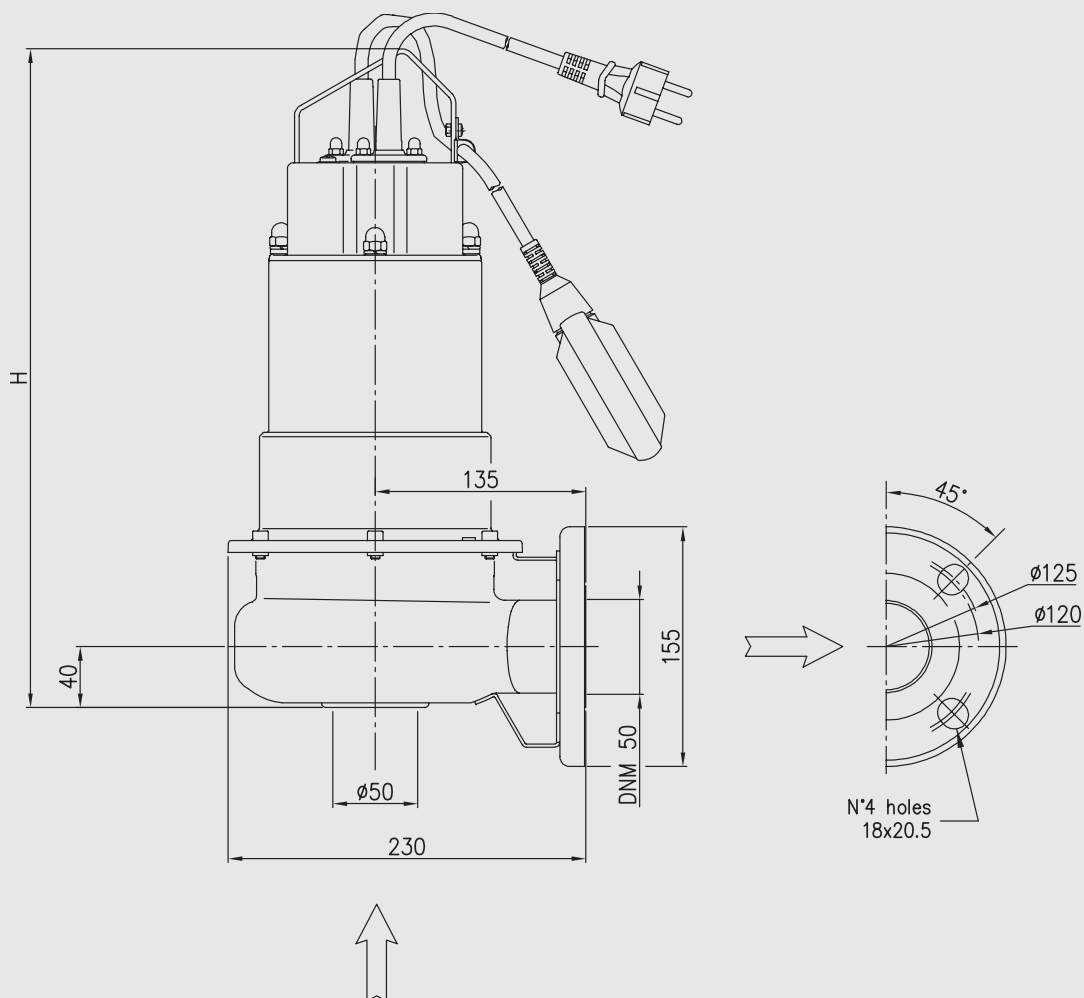


DW-DW VOX

**SUBMERSIBLE PUMPS
FOR DIRTY WATER**

DIMENSIONS

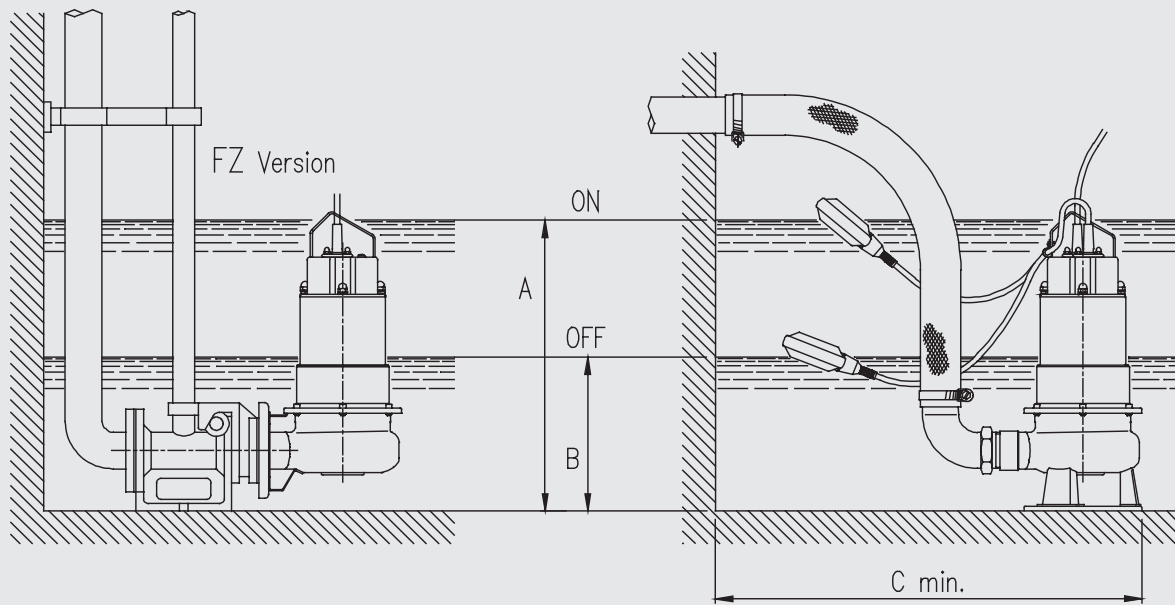
DWFZ-DW VOXFZ DIMENSIONS



| PUMP TYPE | H [mm] | |
|-------------------|--------|-----|
| | 1~ | 3~ |
| DWFZ-DW VOXFZ 75 | 427 | 427 |
| DWFZ-DW VOXFZ 100 | 457 | 427 |
| DWFZ-DW VOXFZ 150 | 457 | 457 |
| DWFZ-DW VOXFZ 200 | - | 457 |
| DWFZ-DW VOXFZ 300 | - | 487 |

1~ = Single phase.

3~ = Three phase.

INSTALLATION**Dimensions [mm]**

| | |
|---|-----|
| A | 600 |
| B | 250 |
| C | 500 |

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