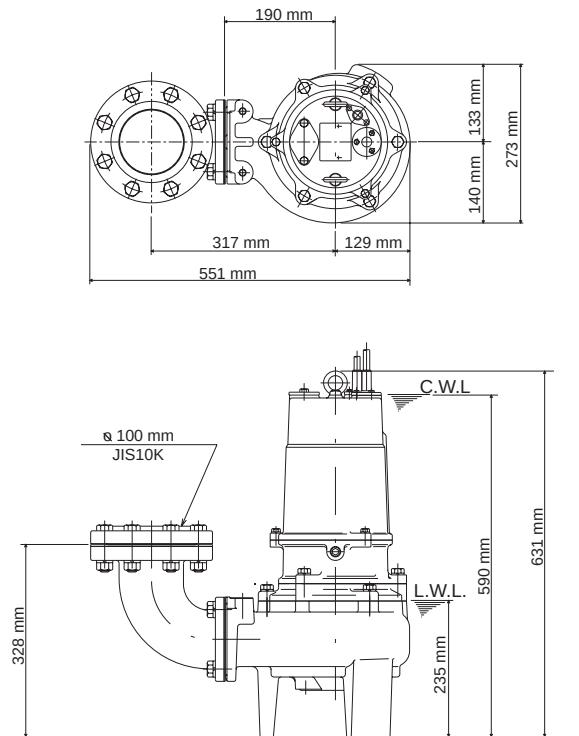
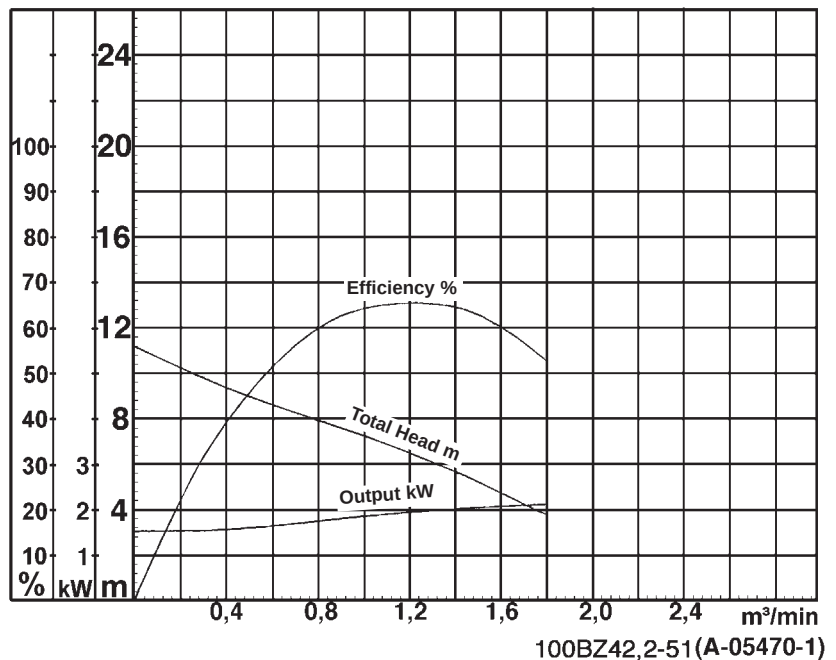


# Data Sheet 100BZ42.2-51



100BZ42.2-51

C.W.L. = Continuous running water level  
L.W.L. = Lowest running water level



## Classification

Electric submersible pump  
Protection class IP68  
Depth of submersion max. 30m  
1-channel impeller, non-clogging type  
Impeller passage 80mm  
Suitable for sewage water, various waste water

## Electric Motor

Dry-type submersible induction motor,  
Insulation class F, 4 poles, 1420 r.p.m.  
Direct on line start  
Voltage: 400V, 50Hz, 3-phase  
Power input: 3,04kW  
Power output: 2,20kW  
Nominal current: 5,3A  
Start current: 32,0A

## Electric Cable

10m H07RN-F 4Cx1,5mm<sup>2</sup>  
10m VCT4Cx1,25mm<sup>2</sup>

## Motor Protection

Miniature protector in windings  
(snap-action bi-metal device)

## Shaft Seal

Double mechanical seal in oil bath  
additional lubrication by oil lifting device  
Primary Seal:  
silicon carbide on silicon carbide  
Secondary Seal:  
silicon carbide on silicon carbide

## Bearings

Shielded ball bearings, maintenance-free

## Materials

|                |                       |
|----------------|-----------------------|
| Impeller:      | FC200 (EN-GJL-200)    |
| Casing:        | FC200 (EN-GJL-200)    |
| Suction Cover: | FC200 (EN-GJL-200)    |
| Motor frame:   | FC150 (EN-GJL-150)    |
| Shaft:         | SUS420J2 (EN-X30Cr13) |

## Discharge Connection

4" (100mm) JIS10K screwed-in mating flange  
Guide rail fitting optional

## Weight

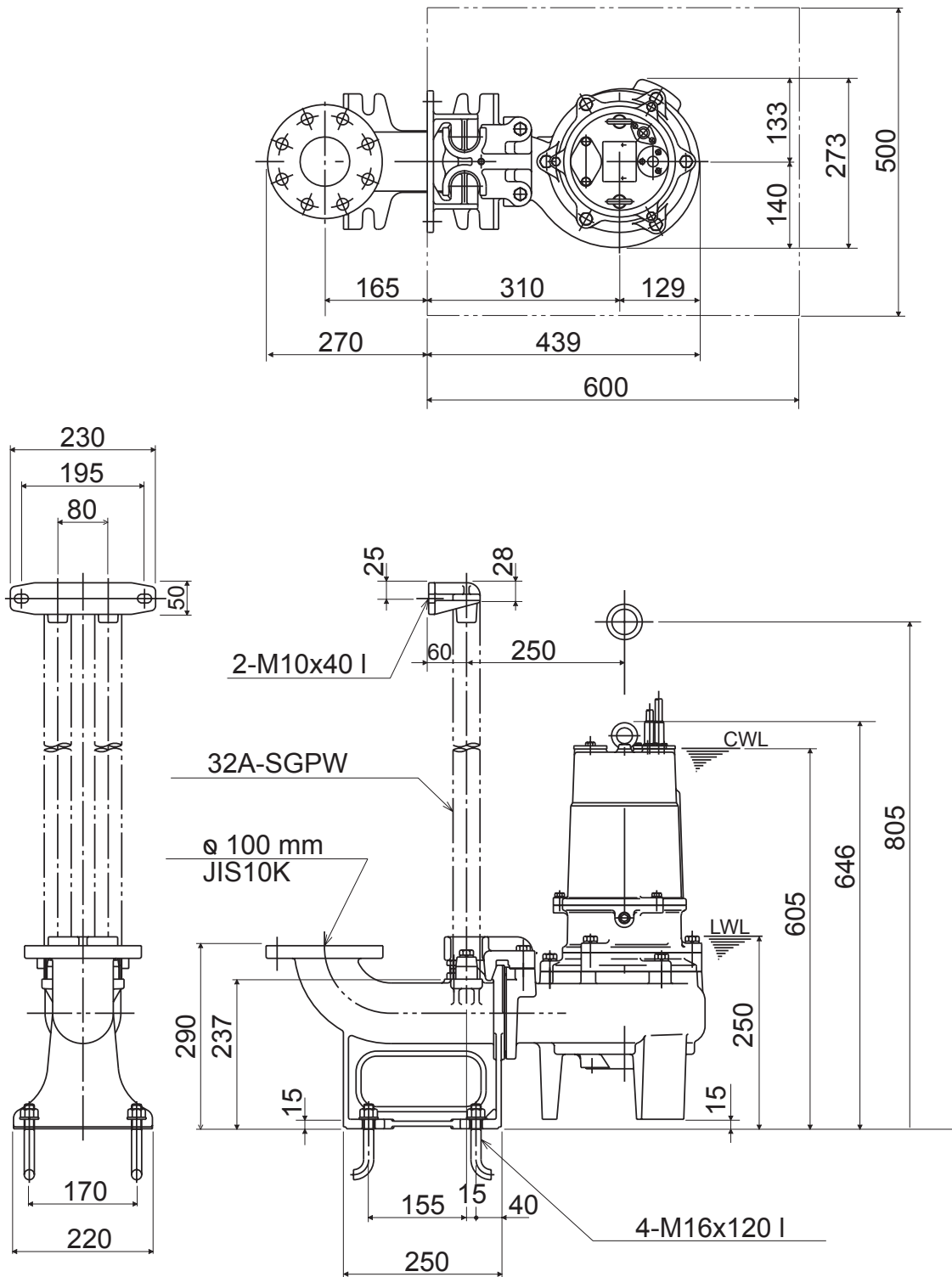
80 kg (dry weight of the pump without cable)



# Dimensional Drawing

## TOS100BZ42.2-51

Dimensions in mm



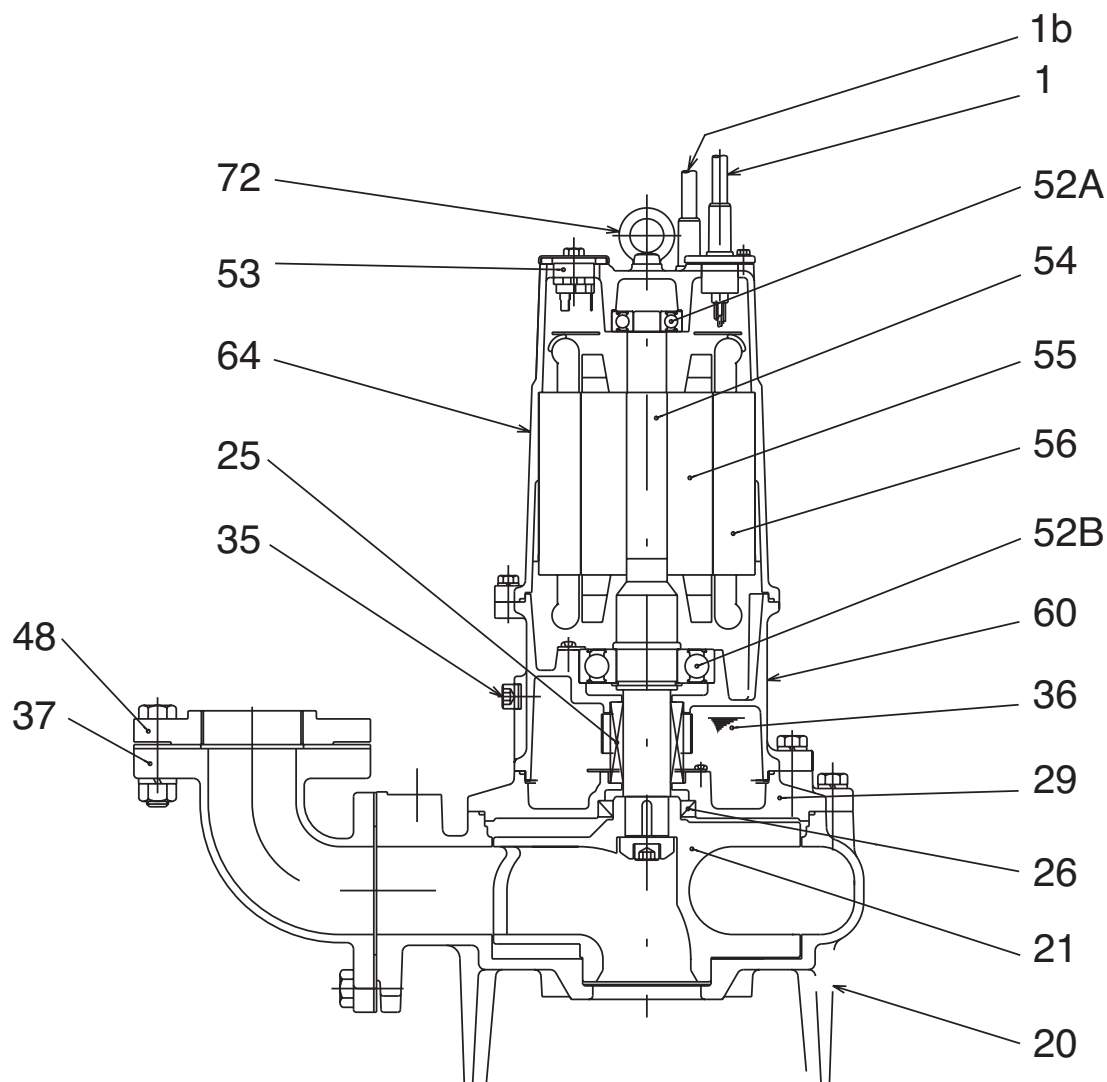
**TOS100BZ42.2-51**

CWL: Continuous Running Water Level

LWL: Lowest Running Water Level

# Sectional Drawing

## 100BZ42.2-51

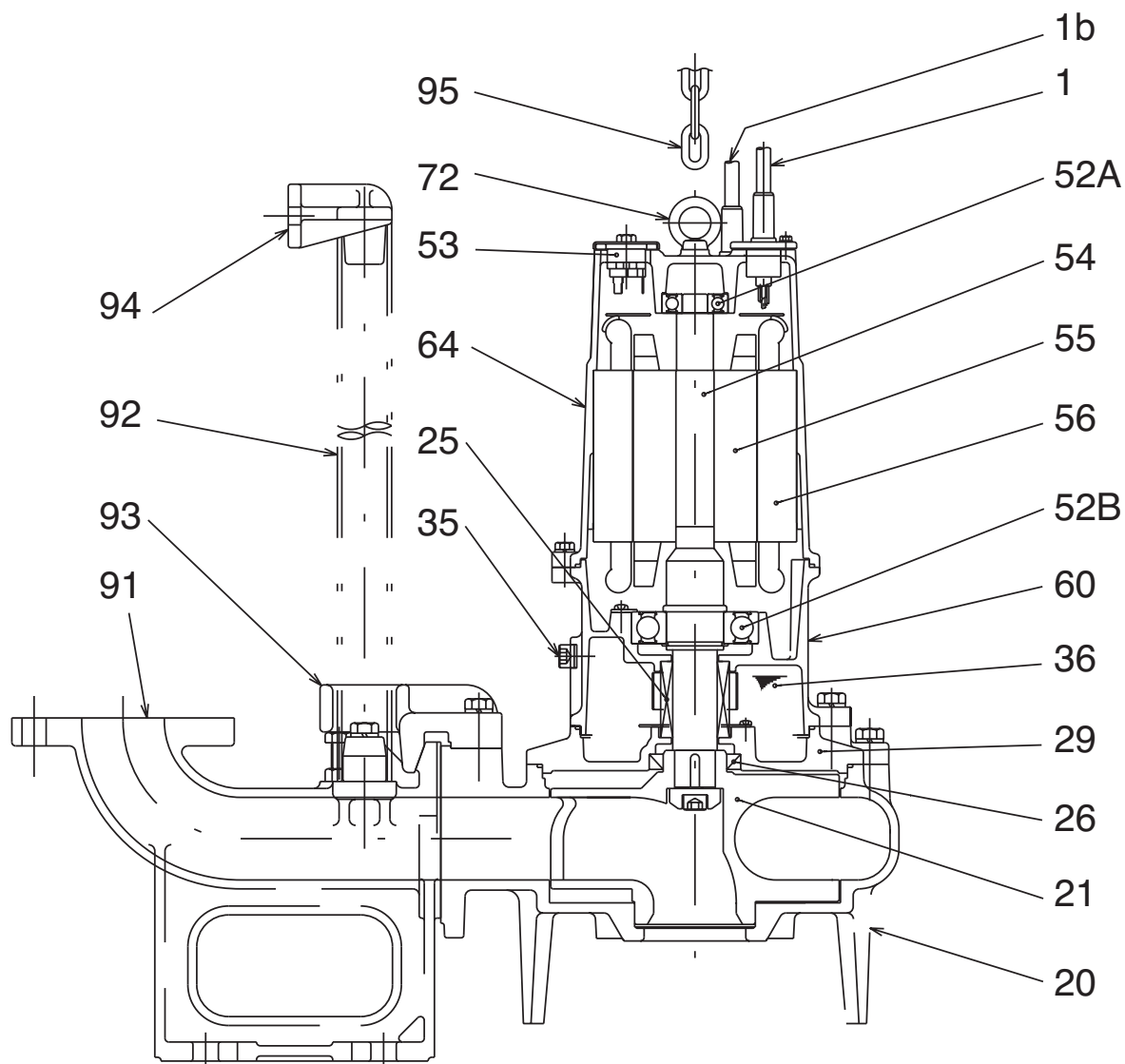


**100BZ42.2-51**

| No. | Description              | Qty. | Remarks                 | No. | Description      | Qty. | Remarks                 |
|-----|--------------------------|------|-------------------------|-----|------------------|------|-------------------------|
| 1   | Cabtyre Cable            | 1    | H07RN-F                 | 54  | Shaft            | 1    | SUS420J2 (EN-X30Cr17)   |
| 1b  | Thermal Protection Cable | 1    | VCT4Cx1,25SQ            | 55  | Rotor            | 1    |                         |
| 20  | Pump Casing              | 1    | FC200 (EN-GJL-200)      | 56  | Stator Complete  | 1    |                         |
| 21  | Impeller                 | 1    | FC200 (EN-GJL-200)      | 60  | Bearing Housing  | 1    | FC150 (EN-GJL-150)      |
| 25  | Mechanical Seal          | 1    | H-30A                   | 64  | Motor Frame      | 1    | FC150 (EN-GJL-150)      |
| 26  | Oil Seal                 | 1    | TC456812                | 72  | Lifting Eye Bolt | 2    | SUS304 (EN-X5CrNi18-10) |
| 29  | Oil Casing               | 1    | FC200 (EN-GJL-200)      |     |                  |      |                         |
| 35  | Oil Plug                 | 1    | SUS304 (EN-X5CrNi18-10) |     |                  |      |                         |
| 36  | Lubricant                |      | Turbine Oil (ISO VG32)  |     |                  |      |                         |
| 37  | Discharge Bend           | 1    | FC200 (EN-GJL-200)      |     |                  |      |                         |
| 48  | Screwed Flange           | 1    | FC200 (EN-GJL-200)      |     |                  |      |                         |
| 52A | Upper Bearing            | 1    | 6304ZZC3                |     |                  |      |                         |
| 52B | Lower Bearing            | 1    | 6307ZZC3                |     |                  |      |                         |
| 53  | Motor Protector          | 3    |                         |     |                  |      |                         |

# Sectional Drawing

## TOS100BZ42.2-51



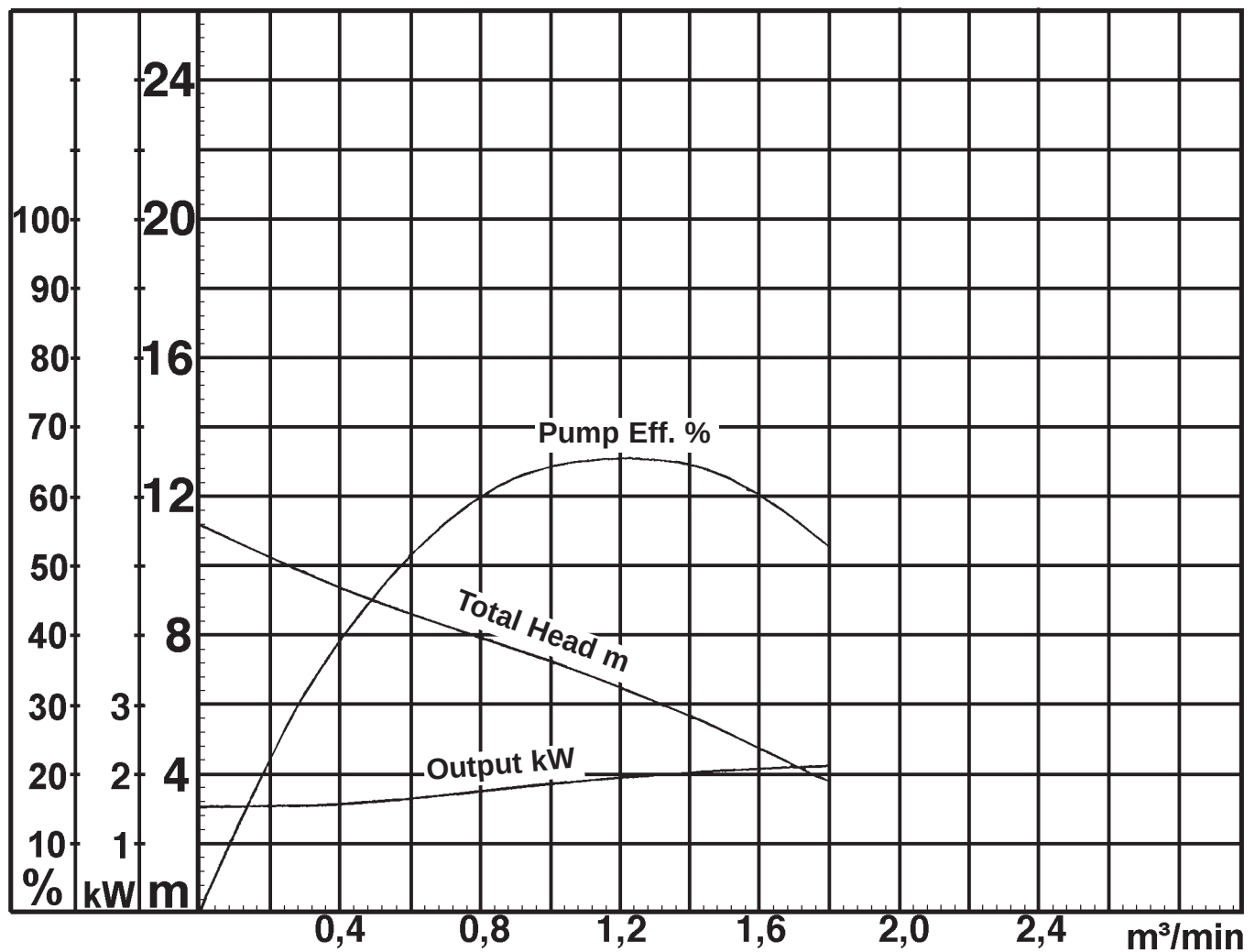
**TOS100BZ42.2-51**

| No. | Description              | Qty. | Remarks                 | No. | Description         | Qty. | Remarks                 |
|-----|--------------------------|------|-------------------------|-----|---------------------|------|-------------------------|
| 1   | Cabletyre Cable          | 1    | H07RN-F                 | 56  | Stator              | 1    |                         |
| 1b  | Thermal Protection Cable | 1    | VCT4Cx1,25SQ            | 60  | Bearing Housing     | 1    | FC150 (EN-GJL-150)      |
| 20  | Pump Casing              | 1    | FC200 (EN-GJL-200)      | 64  | Motor Frame         | 1    | FC150 (EN-GJL-150)      |
| 21  | Impeller                 | 1    | FC200 (EN-GJL-200)      | 72  | Lifting Eye Bolt    | 2    | SUS304 (EN-X5CrNi18-10) |
| 25  | Mechanical Seal          | 1    | H-30A                   | 91  | Duck Foot Bend      | 1    | FC200 (EN-GJL-200)      |
| 26  | Oil Seal                 | 1    | TC456812                | 92  | Guide Pipe (Option) | 2    | Galvanized Steel Pipe   |
| 29  | Oil Casing               | 1    | FC200 (EN-GJL-200)      | 93  | Guide Hook          | 1    | FCD450 (EN-GJS-450-10)  |
| 35  | Oil Plug                 | 1    | SUS304 (EN-X5CrNi18-10) | 94  | guide Support       | 1    | SUS304 (EN-X5CrNi18-10) |
| 36  | Lubricant                |      | Turbine Oil (ISO VG32)  | 95  | Chain               | 1    | SS400 (DIN 1.0040)      |
| 52A | Upper Bearing            | 1    | 6304ZZC3                |     |                     |      |                         |
| 52B | Lower Bearing            | 1    | 6307ZZC3                |     |                     |      |                         |
| 53  | Motor Protector          | 3    |                         |     |                     |      |                         |
| 54  | Shaft                    | 1    | SUS420J2 (EN-X30Cr13)   |     |                     |      |                         |
| 55  | Rotor                    | 1    |                         |     |                     |      |                         |

# Pump Performance Curve

## 100BZ42.2-51

|                  |                  |
|------------------|------------------|
| Discharge Bore   | 100 mm           |
| Total Head       | 5,8 m            |
| Capacity         | 1,0 m³/min       |
| Motor Output     | 2,20 kW          |
| Motor Input      | 3,04 kW          |
| Phase            | 3                |
| Voltage          | 400 V            |
| Frequency        | 50 Hz            |
| Rated Current    | 5,3 A            |
| Starting Current | 32,0 A           |
| Poles            | 4                |
| Revolution       | S.S. 1420 r.p.m. |
| Starting Method  | direct on line   |
| Insulation Class | F                |



100BZ42,2-51(A-05470-1)