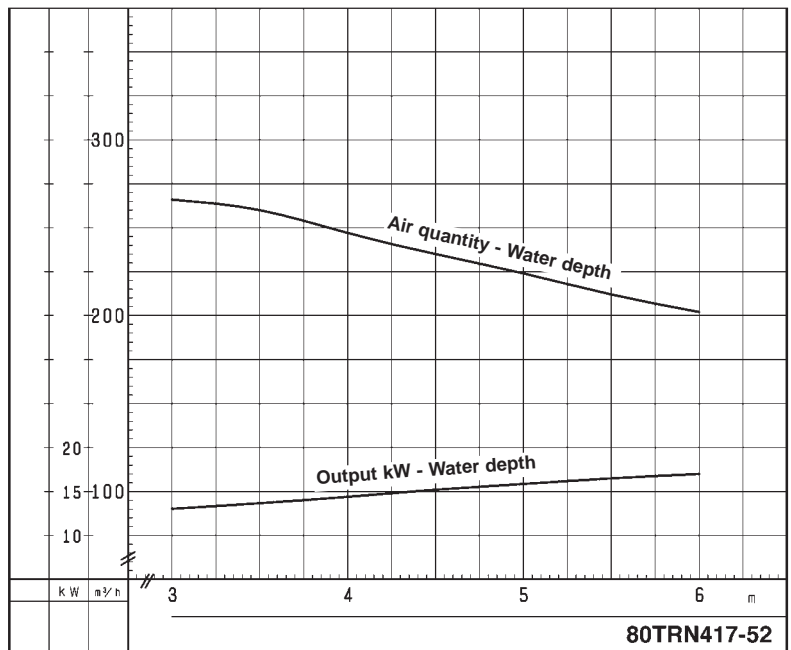
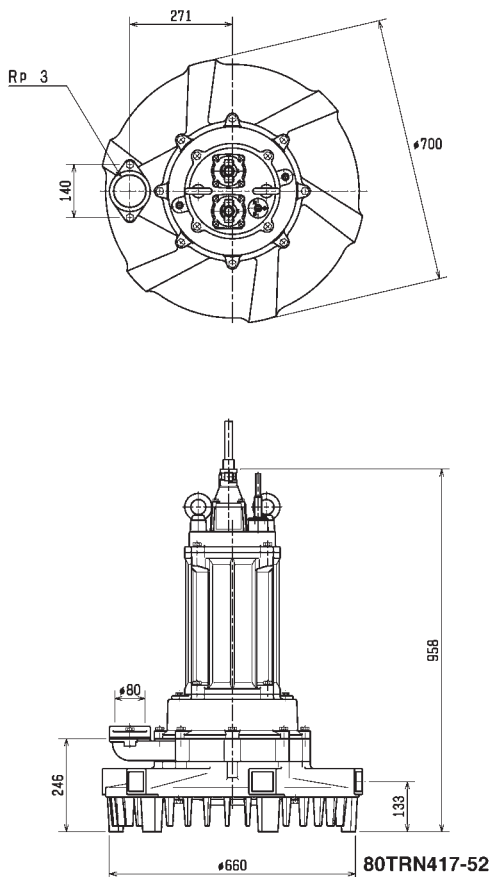


Data Sheet 80TRN417-52



Classification

Electric submersible aerator
 Protection class IP68
 Depth of submersion:
 max. 6m (self-aspiring), max. 10m (with blower)
 Open type impeller
 Purpose: aeration of activated sludge
 (municipal sewage only)

Electric Motor

Dry-type submersible induction motor,
 Insulation class F, 4 poles, 1449 r.p.m.
 Star-delta-start

| | |
|------------------|---------------------|
| Voltage: | 400V, 50Hz, 3-phase |
| Power input: | 20,6kW |
| Power output: | 17,0kW |
| Nominal current: | 35,2A |
| Start current: | 189,0A |

Electric Cable

20m H07RN-F 4Cx2,5mm²
 20m H07RN-F 3Cx2,5mm²
 20m 2PNCT 2Cx1,25mm²

Motor Protection

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

Weight

220 kg (dry weight of the pump without cable)

Air inlet

80 mm screwed-in flange

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: | SCS1 (DIN 1.4008) |
| Suction Cover: | SCS1 (DIN 1.4008) |
| Middle Plate: | SCS1 (DIN 1.4008) |
| Guide vane: | FC200 (EN-GJL-200) |
| Air passage: | FC200 (EN-GJL-200) |
| Bearing housing: | FC150 (EN-GJL-150) |
| Shaft: | SUS420J2 (EN-X30Cr13) |

Noise level

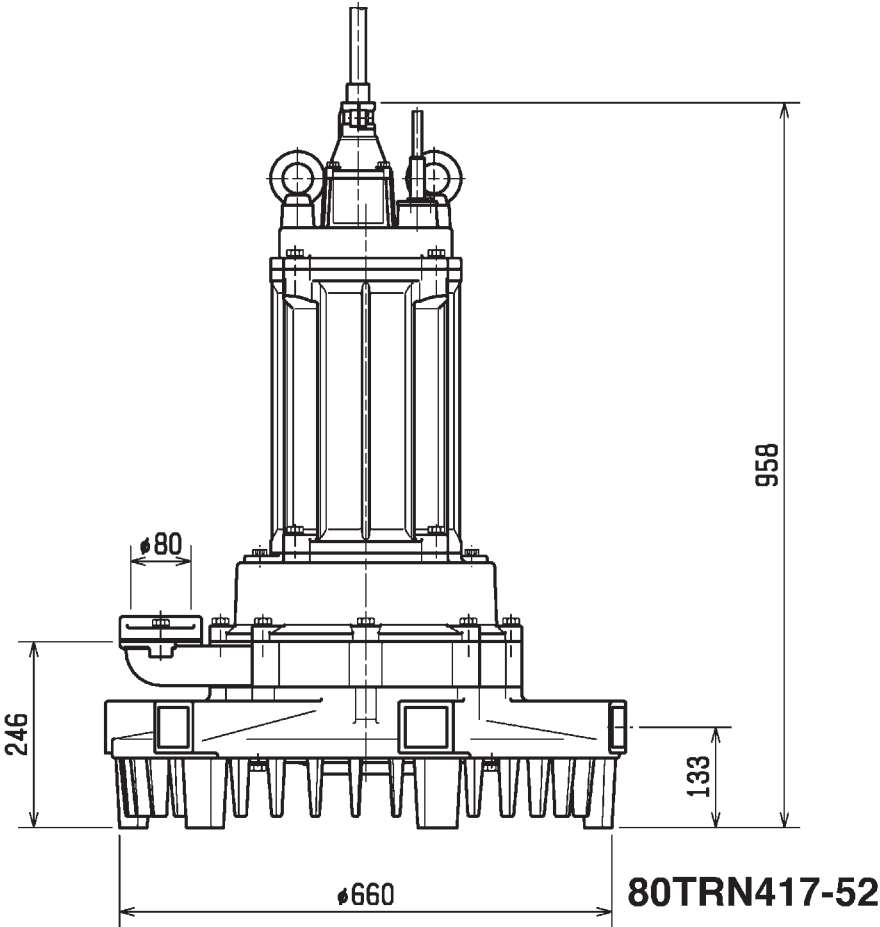
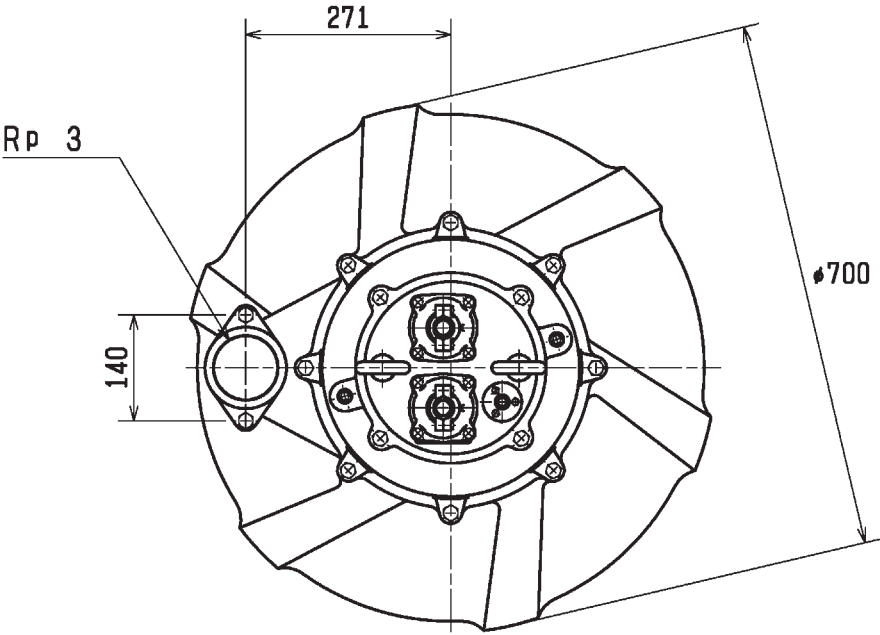
72 d-BA, under following conditions:
 water depth: 6m

Silencer is set 1,6m above ground level. Microphone for measurement is placed at a distance of 1m from the silencer and 1,6m above ground level.

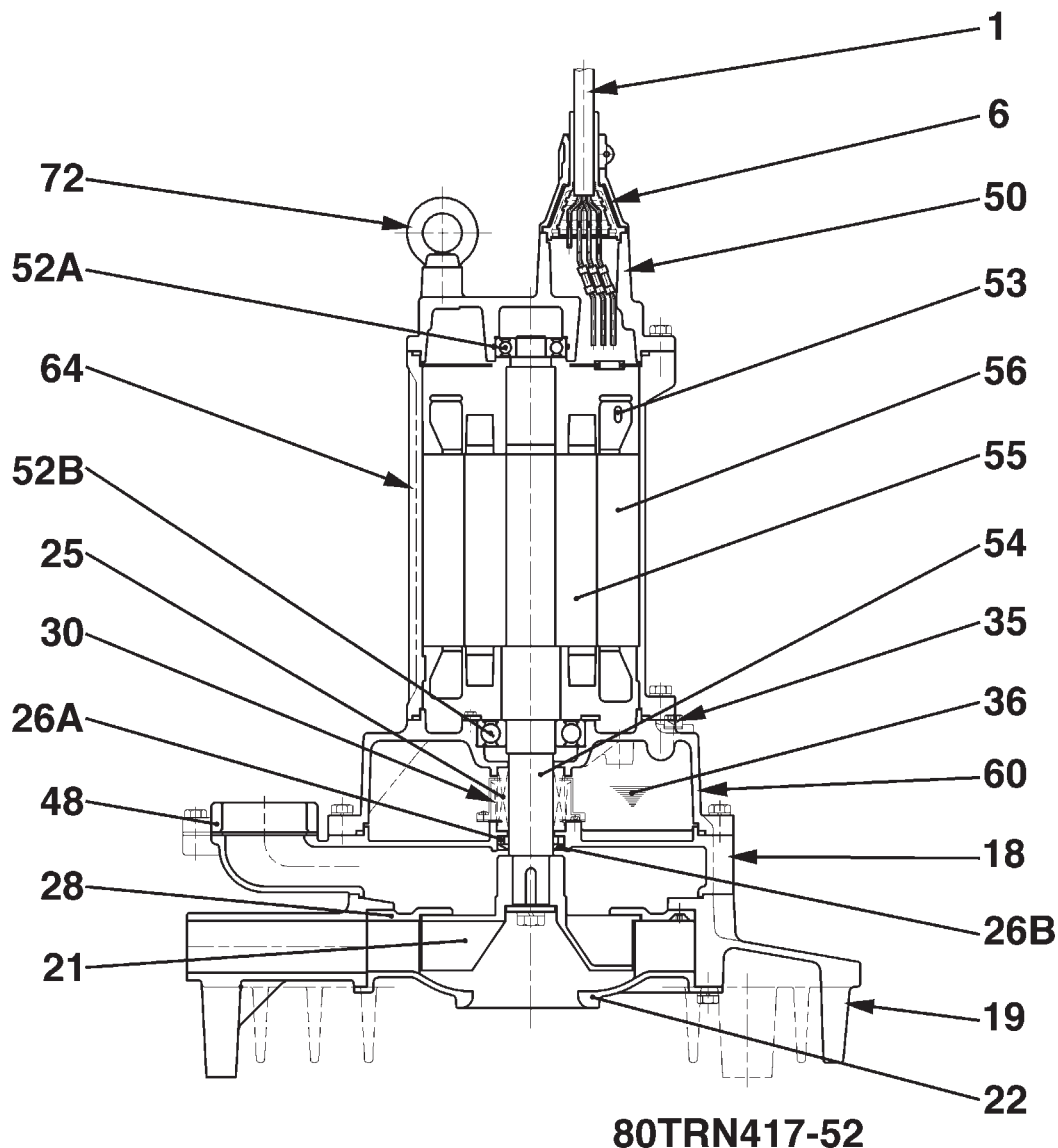
Lifting chain (not included)

Straight chain ø9mm (760kg), shackle ø10mm (400kg)
 Sling chain ø9mmx7Lx2 (760kg), shackle ø10mm (400kg)

Dimensional Drawing 80TRN417-52



Sectional Drawing 80TRN417-52



| No. | Description | Qty. | Remarks | No. | Description | Qty. | Remarks |
|-----|-----------------|------|-------------------------|-----|------------------|------|-------------------------|
| 1 | Cabtyre Cable | 3 | H07RN-F | 50 | Motor Bracket | 1 | FC200 (EN-GJL-200) |
| 6 | Stuffing Box | 2 | FC150 (EN-GJL-150) | 52A | Upper Bearing | 1 | 6306ZZC3 |
| 18 | Air Passage | 1 | FC200 (EN-GJL-200) | 52B | Lower Bearing | 1 | 6310ZZC3 |
| 19 | Guide Vane | 1 | FC200 (EN-GJL-200) | 53 | Motor Protector | 3 | |
| 21 | Impeller | 1 | SCS1 (DIN GX12Cr14) | 54 | Shaft | 1 | SUS420J2 (EN X30Cr13) |
| 22 | Suction Cover | 1 | SCS1 (DIN GX12Cr14) | 55 | Rotor | 1 | |
| 25 | Mechanical Seal | 1 | H-45 | 56 | Stator Complete | 1 | |
| 26A | Distance Piece | 1 | Carbon Steel Pipe | 60 | Bearing Housing | 1 | FC150 (EN-GJL-150) |
| 26B | Oil Seal | 1 | VC45686 | 64 | Motor Frame | 1 | FC200 (EN-GJL-200) |
| 28 | Middle Plate | 1 | SCS1 (DIN GX12Cr14) | 72 | Lifting Eye Bolt | 2 | SUS304 (EN-X5CrNi18-10) |
| 30 | Oil Lifter | 1 | Plastic | | | | |
| 35 | Oil Plug | 2 | SUS304 (EN-X5CrNi18-10) | | | | |
| 36 | Lubricant | | Turbine Oil (ISO VG32) | | | | |
| 48 | Screwed Flange | 1 | FC200 (EN-GJL-200) | | | | |

Aerator Performance Curve

80TRN417-52

| | |
|------------------|--------------------------|
| Air Inlet Bore | 80 mm |
| Air Quantity | 202,0 Nm ³ /h |
| Water Depth | 6,0 mAq |
| Max. Water Depth | 6,0 mAq |
| Motor Output | 17,0 kW |
| Motor Input | 20,6 kW |
| Phase | 3 |
| Voltage | 400 V |
| Frequency | 50 Hz |
| Rated Current | 32,2 A |
| Starting Current | 189,0 A |
| Poles | 4 |
| Revolution | S.S. 1449 r.p.m. |
| Starting Method | star-delta |
| Insulation Class | F |

