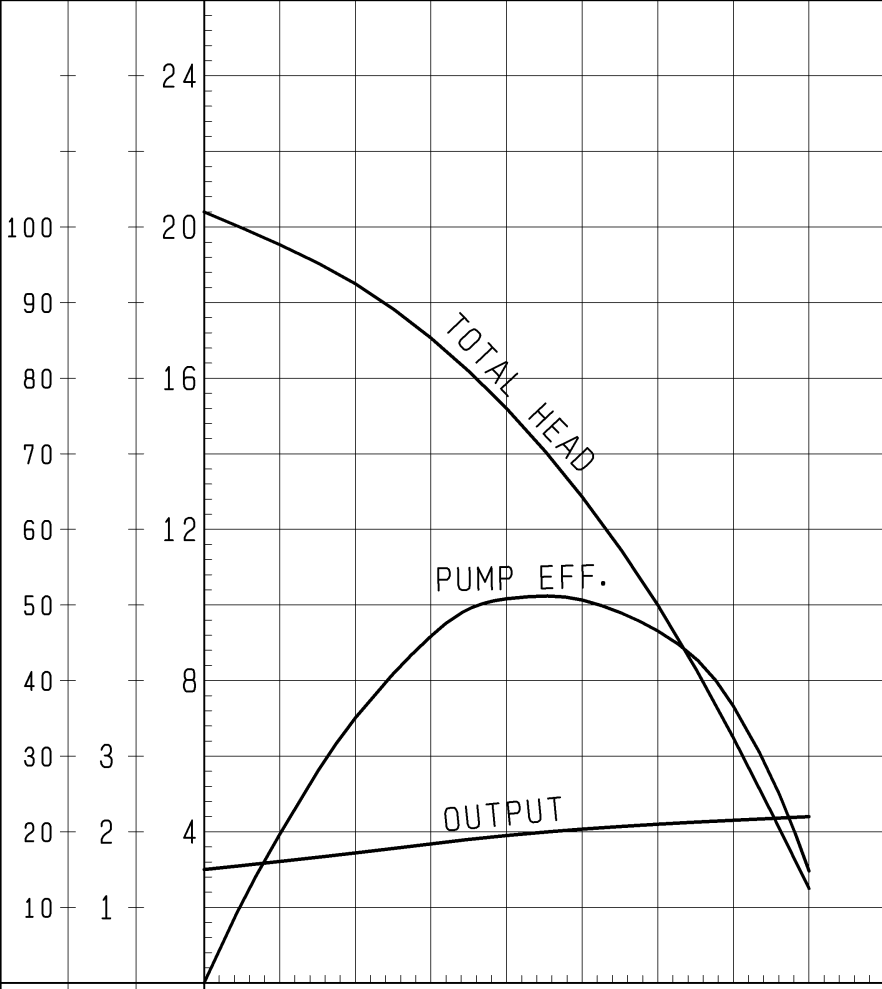
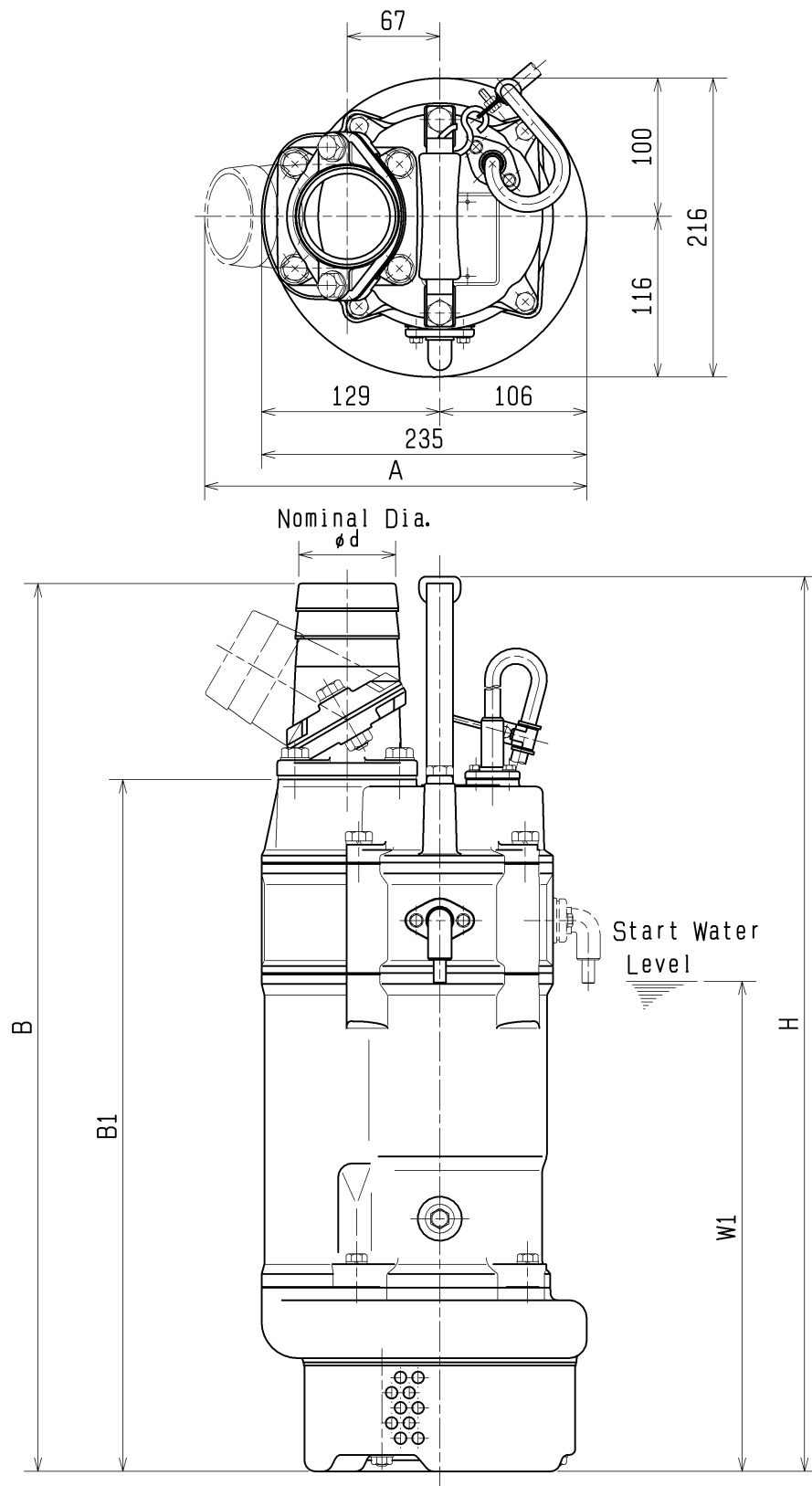


| SPECIFICATIONS | Model | KTZE32.2 | KTZE-series | | | | | | | | |
|---|-------------|----------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|
| | | | 2.2kW, 3-phase | | | | | | | | |
| <p>Type of Pump Submersible automatic high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p>Type of Fluid Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 80mm, Hose Coupling</p> <p>Motor Output 2.2kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 2-pole, 3000/3600min⁻¹ (50/60Hz)</p> <p>Power Supply Voltages & Rated Currents</p> <table><tr><td>50Hz</td><td>60Hz</td></tr><tr><td>380V – 5.1A</td><td>220V – 9.0A</td></tr><tr><td>400V – 5.0A</td><td>380V – 5.1A</td></tr><tr><td>415V – 5.0A</td><td>440V – 4.6A</td></tr></table> <p>Power Cable Sheath: PVC Standard Length: 8m 200 to 600V supply: 1 x 4 x 1.25mm², O.D. 11.1mm</p> <p>Dry Weight (excluding cable) 40kg</p> | | 50Hz | 60Hz | 380V – 5.1A | 220V – 9.0A | 400V – 5.0A | 380V – 5.1A | 415V – 5.0A | 440V – 4.6A | <p>Impeller Semi-open Impeller made of high-chromium cast iron</p> <p>Solids Passage 50Hz – ϕ8.5mm 60Hz – ϕ8.5mm</p> <p>Cable Entry with Anti-Wicking Block Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p>Bearing Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft 420 stainless steel</p> <p>Shaft Seal (Mechanical Seal) Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p>Oil Seal (Lip Seal) Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p>OIL LIFTER (Patented) Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil & Volume Turbine Oil (ISO VG32), 740ml</p> <p>Motor Protection Device A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p> | |
| 50Hz | 60Hz | | | | | | | | | | |
| 380V – 5.1A | 220V – 9.0A | | | | | | | | | | |
| 400V – 5.0A | 380V – 5.1A | | | | | | | | | | |
| 415V – 5.0A | 440V – 4.6A | | | | | | | | | | |
| <p>Optional Accessory</p> <p>Extension Electrode</p> | | | | | | | | | | | |
| TSURUMI MANUFACTURING CO., LTD. | | | | | | | | | | | |

| | | NO. | | A-21037-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|-------------------------------------|------------------------|--------------------------------|----------------|---------------|-------------|-----|------|---|-----|-----|------|----|-----|-----|------|----|-----|-----|------|----|-----|-----|------|----|-----|-----|------|----|-----|--|--|
| PUMP PERFORMANCE CURVES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE | | SUBMERSIBLE GENERAL DEWATERING PUMP | | MODEL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | KTZE32.2 -51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | FREQUENCY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | 50 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CUSTOMER'S NAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EQUIPMENT TITLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | STANDARD SPECIFICATIONS | | REQUIRED SPECIFICATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISCHARGE BORE | | 80 mm | | mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL HEAD | | MAX. 20.4 m | | m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAPACITY | | MAX. 0.8 m ³ /min | | m ³ /min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MOTOR OUTPUT | | 2.2 kW | | kW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PHASE × VOLTAGE | | 3 φ × V | | φ × V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CURRENT | | A | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POLES / REVOLUTION | | 2 P / S. S. 3000 min ⁻¹ | | P / min ⁻¹ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STARTING METHOD | | DIRECT ON LINE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INSULATION CLASS | | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | REMARKS: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>The graph displays three performance curves for the pump. The x-axis represents Capacity in m³/min, ranging from 0 to 1.4. The left y-axis has two scales: Total Head in meters (m) from 0 to 24, and Motor Output in kW from 1 to 100. The right y-axis represents Pump Efficiency in percent (%). The 'TOTAL HEAD' curve starts at approximately 20.4 m at 0 capacity and decreases to about 11 m at 0.8 m³/min. The 'PUMP EFF.' curve starts at 0%, peaks at approximately 52% efficiency at a capacity of 0.5 m³/min, and then declines. The 'OUTPUT' curve starts at approximately 1.5 kW at 0 capacity and increases to about 2.2 kW at 0.8 m³/min.</p> <table border="1"><thead><tr><th>CAPACITY (m³/min)</th><th>TOTAL HEAD (m)</th><th>PUMP EFF. (%)</th><th>OUTPUT (kW)</th></tr></thead><tbody><tr><td>0.0</td><td>20.4</td><td>0</td><td>1.5</td></tr><tr><td>0.2</td><td>18.5</td><td>35</td><td>1.6</td></tr><tr><td>0.4</td><td>16.0</td><td>50</td><td>1.7</td></tr><tr><td>0.5</td><td>14.5</td><td>52</td><td>1.8</td></tr><tr><td>0.6</td><td>12.5</td><td>48</td><td>1.9</td></tr><tr><td>0.8</td><td>11.0</td><td>35</td><td>2.2</td></tr></tbody></table> | | | | CAPACITY (m ³ /min) | TOTAL HEAD (m) | PUMP EFF. (%) | OUTPUT (kW) | 0.0 | 20.4 | 0 | 1.5 | 0.2 | 18.5 | 35 | 1.6 | 0.4 | 16.0 | 50 | 1.7 | 0.5 | 14.5 | 52 | 1.8 | 0.6 | 12.5 | 48 | 1.9 | 0.8 | 11.0 | 35 | 2.2 | | |
| CAPACITY (m ³ /min) | TOTAL HEAD (m) | PUMP EFF. (%) | OUTPUT (kW) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.0 | 20.4 | 0 | 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.2 | 18.5 | 35 | 1.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.4 | 16.0 | 50 | 1.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.5 | 14.5 | 52 | 1.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.6 | 12.5 | 48 | 1.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.8 | 11.0 | 35 | 2.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % | kW | m | CAPACITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PUMP EFF. | MOTOR OUTPUT | TOTAL HEAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | TSURUMI MFG. CO., LTD. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

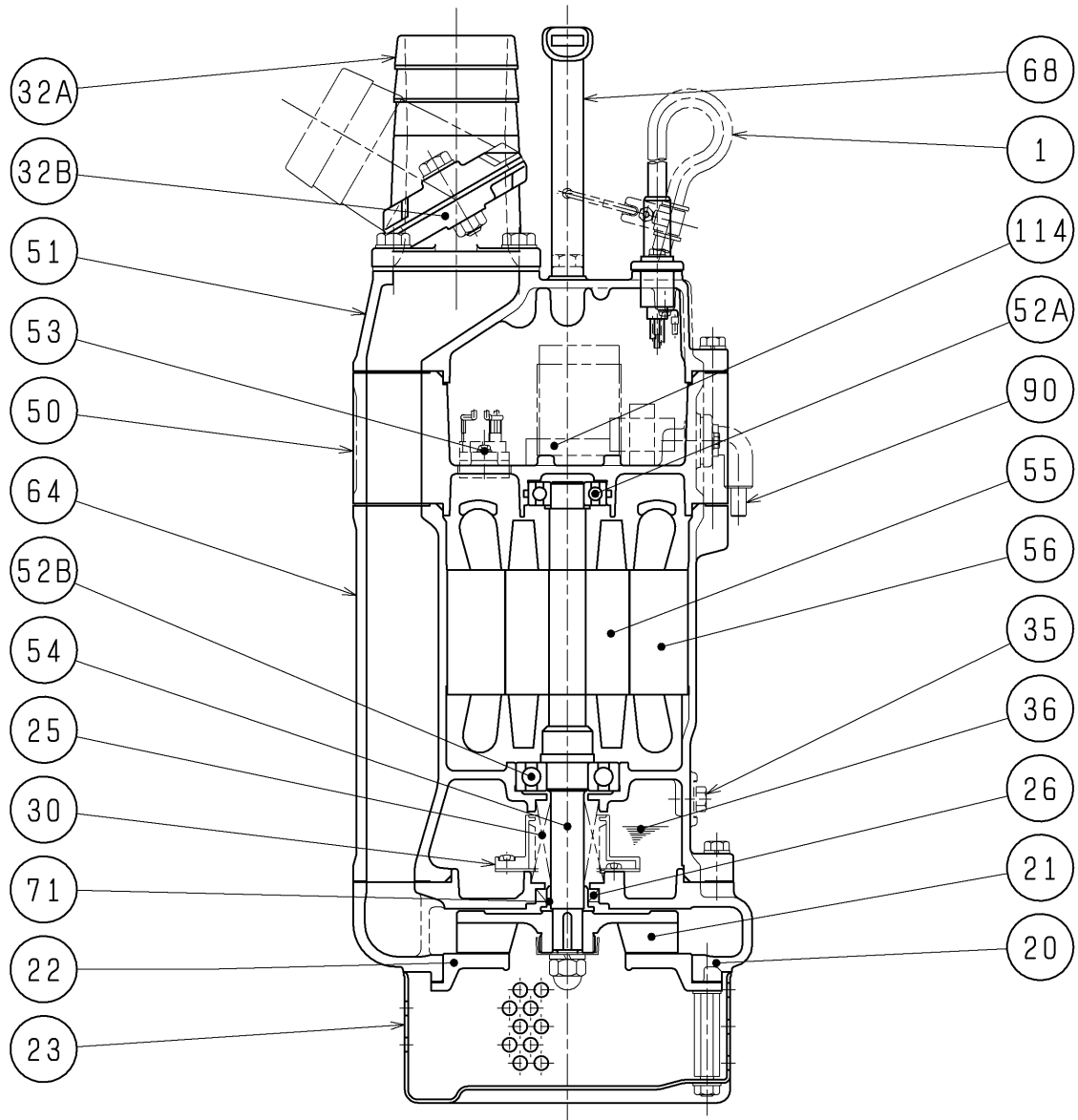
| DIMENSION DRAWING | | | No. | | No. | A-21045-1 |
|-------------------|-------------------------------------|--|-------|--|-----|-----------|
| TYPE | SUBMERSIBLE GENERAL DEWATERING PUMP | | MODEL | KTZE21.5 -51/61, KTZE22.2 -51/61 KTZE31.5 -51/61, KTZE32.2 -51/61 | | |



*excluding cable

| MODEL | d | A | B | B1 | H | W1 | Approximate Weight (※) |
|----------------|----|-----|-----|-----|-----|-----|------------------------|
| KTZE21.5-51/61 | 50 | 270 | 623 | 481 | 628 | 345 | 39kg |
| KTZE31.5-51/61 | 80 | 276 | 623 | 481 | 628 | 345 | 38kg |
| KTZE22.2-51/61 | 50 | 270 | 643 | 501 | 648 | 355 | 41kg |
| KTZE32.2-51/61 | 80 | 276 | 643 | 501 | 648 | 355 | 40kg |

| SECTIONAL DRAWING | | No. | No. | A-21047-2 |
|-------------------|-------------------------------------|-------|--|-----------|
| TYPE | SUBMERSIBLE GENERAL DEWATERING PUMP | MODEL | KTZE21.5 -51/61, KTZE22.2 -51/61 KTZE31.5 -51/61, KTZE32.2 -51/61 | |



REQ. SPECIFICATION

※ the wetted part

| No. | DESCRIPTION | Q'TY | MATERIAL / NOTE | No. | DESCRIPTION | Q'TY | MATERIAL / NOTE |
|-----|--------------------------|------|------------------------|-----|-------------------------|------|--|
| 1 | Cabtyre Cable | 1 | PVC Sheath | 52A | Upper Bearing | 1 | 6204ZC3 |
| 20 | Pump Casing | 1 | Gray Iron Casting | 52B | Lower Bearing | 1 | 6305ZC3 |
| 21 | Impeller | 1 | Chromium Iron Casting | 53 | Motor Protector | 1 | |
| 22 | Suction Cover | 1 | Ductile Iron Casting | 54 | Shaft | 1 | Stainless Steel 420J2(※) |
| 23 | Strainer Stand | 1 | Steel Sheet | 55 | Rotor | 1 | |
| 25 | Mechanical Seal | 1 | H-20T | 56 | Stator | 1 | |
| 26 | Oil Seal | 1 | TC25388 | 64 | Motor Frame | 1 | Gray Iron Casting |
| 30 | Oil Lifter | 1 | Plastic | 68 | Handle | 1 | Steel Sheet & Nitrile Butadiene Rubber |
| 32A | Hose Coupling | 1 | Aluminium Die Casting | 71 | Shaft Sleeve | 1 | Stainless Steel 304 |
| 32B | Hose Coupling Attachment | 1 | Aluminium Die Casting | 90 | Level Sensor(Electrode) | 1 | Stainless Steel 304 |
| 35 | Oil Plug | 1 | Stainless Steel 304 | 114 | Relay Unit | 1 | |
| 36 | Lubricant | | Turbine Oil (ISO VG32) | | | | |
| 50 | Motor Bracket | 1 | Gray Iron Casting | | | | |
| 51 | Head Cover | 1 | Gray Iron Casting | | | | |