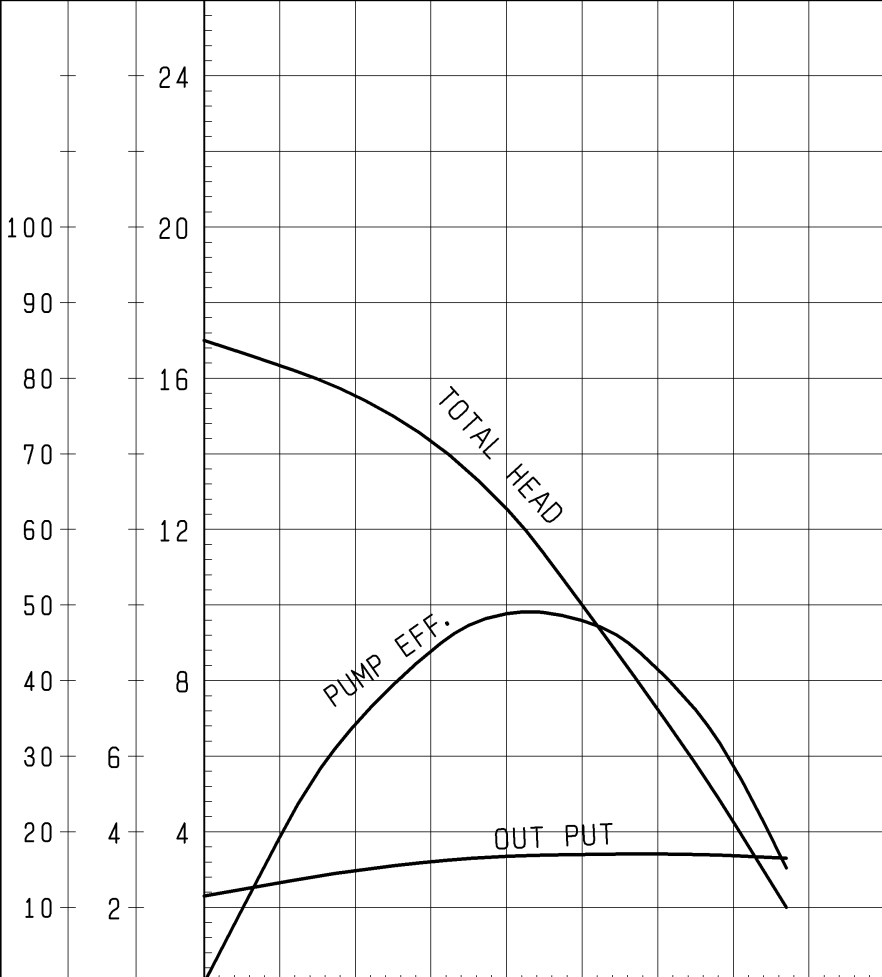
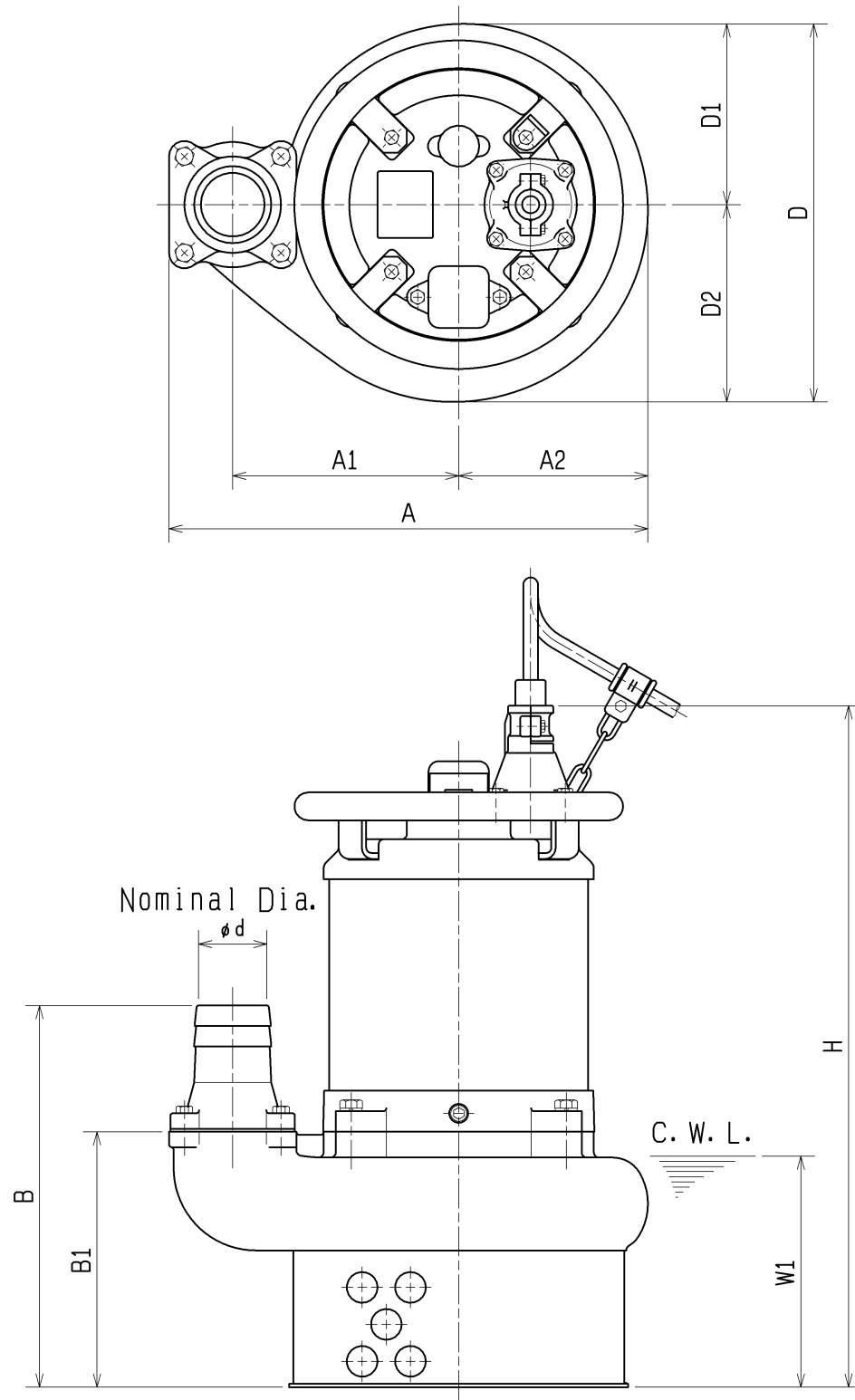


| SPECIFICATIONS | Model | NKZ3-D3/B3 | NKZ-series | | | | | | | |
|--|--------------|------------|----------------|-------------|--------------|-------------|-------------|-------------|-------------|---|
| | | | 3.7kW, 3-phase | | | | | | | |
| <p>Type of Pump Submersible slurry pump for construction and foundation works, mining, and quarries, etc.</p> <p>Type of Fluid Water containing sand, mud, and slurry</p> <p>Temperature: 0 to 40°C (High temperature model available on special request)</p> <p>Discharge Bore & Connection 80mm, Hose Coupling</p> <p>Motor Output 3.7kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line (Star-Delta available on special request)</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: E Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 4-pole, 1500/1800min⁻¹ (50/60Hz)</p> <p>Power Supply Voltages & Rated Currents</p> <table><tr><td>50Hz</td><td>60Hz</td></tr><tr><td>380V – 8.3A</td><td>220V – 14.4A</td></tr><tr><td>400V – 8.0A</td><td>380V – 8.3A</td></tr><tr><td>415V – 7.8A</td><td>440V – 7.2A</td></tr></table> <p>Power Cable Sheath: Chloroprene rubber Standard Length: 8m 200 to 600V supply: 1 x 4 x 2.0mm², O.D. 14.4mm</p> <p>Dry Weight (excluding cable) Free Standing Type: 100kg Guide Rail Fitting Type: 98kg</p> | | 50Hz | 60Hz | 380V – 8.3A | 220V – 14.4A | 400V – 8.0A | 380V – 8.3A | 415V – 7.8A | 440V – 7.2A | <p>Impeller Semi-open Impeller made of ductile cast iron</p> <p>Solids Passage 50Hz – ϕ30mm 60Hz – ϕ30mm</p> <p>Agitator Ductile cast iron</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), 700ml</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 – 8.3A | 220V – 14.4A | | | | | | | | | |
| 400V – 8.0A | 380V – 8.3A | | | | | | | | | |
| 415V – 7.8A | 440V – 7.2A | | | | | | | | | |
| TSURUMI MANUFACTURING CO., LTD. | | | | | | | | | | |

| | | | | NO. | A-22042-1 | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|------------------------------------|------------------------|--------------------------------|-----------------|---------------------|-------------------|-----|------|---|-----|-----|------|----|-----|-----|------|----|-----|-----|------|----|-----|-----|------|----|-----|--|--|--|
| PUMP PERFORMANCE CURVES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE Submersible Slurry Pump | | | MODEL NKZ3-D3 | | FREQUENCY 50 Hz | | | | | | | | | | | | | | | | | | | | | | | | | |
| CUSTOMER'S NAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EQUIPMENT TITLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | STANDARD SPECIFICATIONS | | REQUIRED SPECIFICATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISCHARGE BORE | | 80 mm | | mm | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL HEAD | | 15 m | | m | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAPACITY | | 0.5 m ³ /min | | m ³ /min | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MOTOR OUTPUT | | 3.7 kW | | kW | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PHASE × VOLTAGE | | 3 φ × V | | φ × V | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CURRENT | | A | | A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POLES / REVOLUTION | | 4 P / S. S. 1500 min ⁻¹ | | P / min ⁻¹ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STARTING METHOD | | DIRECT ON LINE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INSULATION CLASS | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | REMARKS: | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>The graph displays three performance curves for the NKZ3-D3 pump. The x-axis represents Capacity in m³/min, ranging from 0 to 2.8 with major grid lines every 0.4 units. The left y-axis has two scales: Total Head in meters (m) from 0 to 24, and Motor Output in kW from 0 to 100. The right y-axis represents Pump Efficiency in percent (%), ranging from 0 to 100. The 'TOTAL HEAD' curve starts at approximately 18.5 m at 0 capacity and decreases to about 10 m at 1.6 m³/min. The 'PUMP EFF.' curve starts at 0, peaks at approximately 48% efficiency at a capacity of 0.8 m³/min, and then declines. The 'OUT PUT' curve starts at approximately 2.2 kW at 0 capacity and rises to about 3.5 kW at 1.6 m³/min.</p> <table border="1"><caption>Approximate data points from the performance curves</caption><thead><tr><th>Capacity (m³/min)</th><th>Total Head (m)</th><th>Pump Efficiency (%)</th><th>Motor Output (kW)</th></tr></thead><tbody><tr><td>0.0</td><td>18.5</td><td>0</td><td>2.2</td></tr><tr><td>0.4</td><td>16.5</td><td>35</td><td>2.8</td></tr><tr><td>0.8</td><td>13.5</td><td>48</td><td>3.2</td></tr><tr><td>1.2</td><td>10.5</td><td>40</td><td>3.4</td></tr><tr><td>1.6</td><td>10.0</td><td>30</td><td>3.5</td></tr></tbody></table> | | | | Capacity (m ³ /min) | Total Head (m) | Pump Efficiency (%) | Motor Output (kW) | 0.0 | 18.5 | 0 | 2.2 | 0.4 | 16.5 | 35 | 2.8 | 0.8 | 13.5 | 48 | 3.2 | 1.2 | 10.5 | 40 | 3.4 | 1.6 | 10.0 | 30 | 3.5 | | | |
| Capacity (m ³ /min) | Total Head (m) | Pump Efficiency (%) | Motor Output (kW) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.0 | 18.5 | 0 | 2.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.4 | 16.5 | 35 | 2.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.8 | 13.5 | 48 | 3.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 | 10.5 | 40 | 3.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.6 | 10.0 | 30 | 3.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % | kW | m | CAPACITY | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PUMP EFF. | MOTOR OUTPUT | TOTAL HEAD | m ³ /min | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | TSURUMI MFG. CO., LTD. | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| DIMENSION DRAWING | | | | | No. | | No. | A-22049-1 |
|------------------------------|--|--|--|--|-------|--|--|-----------|
| TYPE Submersible Slurry Pump | | | | | MODEL | | NKZ3-C3/A3, NKZ3-D3/B3 NKZ3-C4/A4, NKZ3-D4/B4 | |

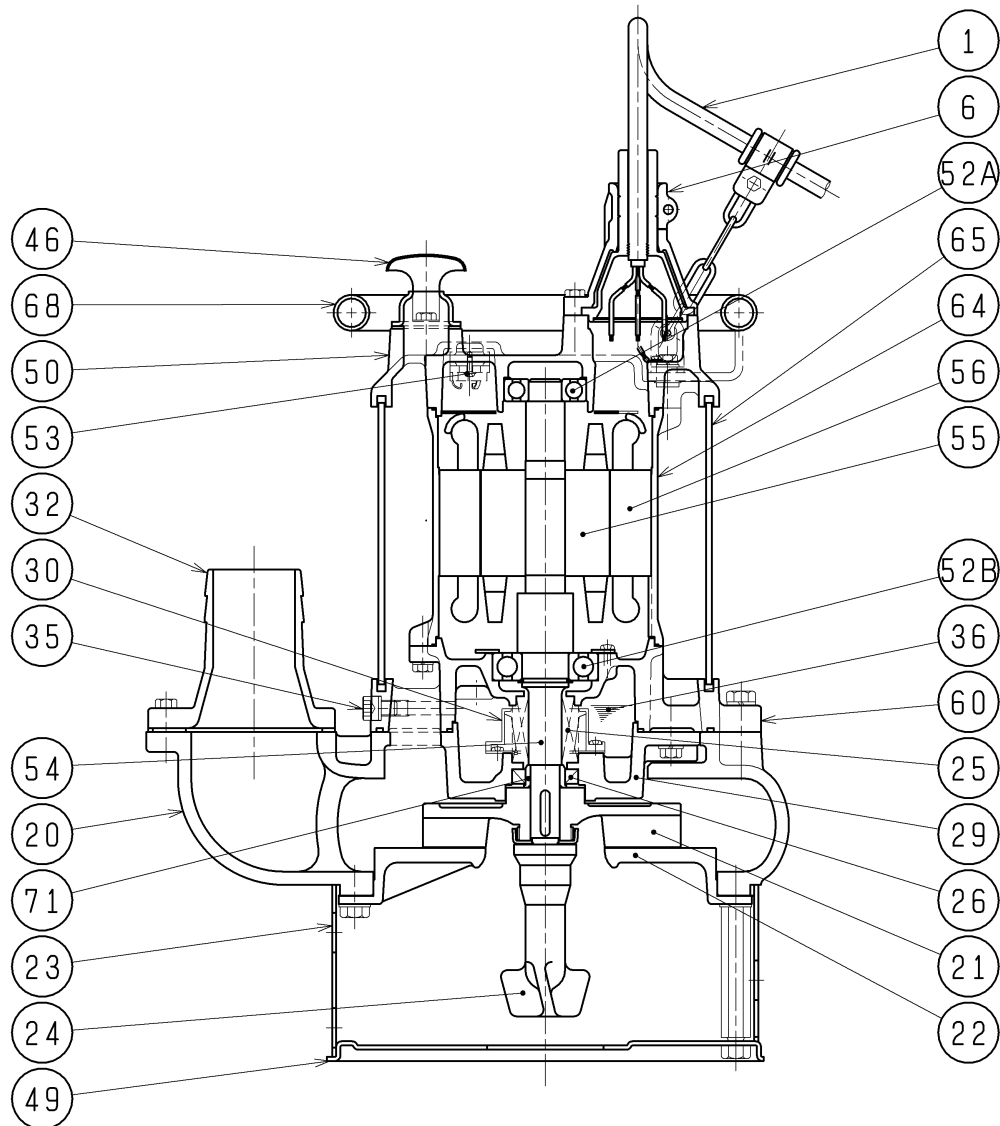


C.W.L. :Continuous running Water Level

| MODEL | ϕd | A | A1 | A2 | B | B1 | D | D1 | D2 | W1 | H | Approximate Weight (※) |
|------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------------|
| NKZ3-C3/A3 | 80 | 466 | 220 | 184 | 372 | 249 | 368 | 176 | 192 | 225 | 664 | 91kg |
| NKZ3-D3/B3 | 80 | 466 | 220 | 184 | 372 | 249 | 368 | 176 | 192 | 225 | 709 | 100kg |
| NKZ3-C4/A4 | 100 | 466 | 220 | 184 | 387 | 249 | 368 | 176 | 192 | 225 | 709 | 97kg |
| NKZ3-D4/B4 | 100 | 482 | 230 | 190 | 382 | 244 | 382 | 182 | 200 | 220 | 714 | 115kg |

※excluding cable

| SECTIONAL DRAWING | | No. | No. | A-22052-1 |
|-------------------|-------------------------|-------|--|-----------|
| TYPE | Submersible Slurry Pump | MODEL | NKZ3-C3/A3, NKZ3-D3/B3 NKZ3-C4/A4, NKZ3-D4/B4 | |



| | | ※1 | ※2 | ※3 | REQ. SPECIFICATION | | | |
|-----------------------|-------------------|------|------------------------|----------|--------------------|-----------------|------|---------------------------------|
| 2. 2kW (C3/A3) | | H-25 | TC305011 | 6307ZZC3 | | | | |
| 3. 7kW (D3/B3, C4/A4) | | H-25 | TC305011 | 6307ZZC3 | | | | |
| 5. 5kW (D4/B4) | | H-30 | TC355511 | 6308ZZC3 | | | | |
| No. | DESCRIPTION | Q'TY | MATERIAL / NOTE | | No. | DESCRIPTION | Q'TY | MATERIAL / NOTE |
| 1 | Cabtyre Cable | 1 | Chloroprene Sheath | | 49 | Bottom Plate | 1 | Steel Sheet |
| 6 | Stuffing Box | 1 | Gray Iron Casting | | 50 | Motor Bracket | 1 | Gray Iron Casting |
| 20 | Pump Casing | 1 | Gray Iron Casting | | 52A | Upper Bearing | 1 | 6305ZZC3 |
| 21 | Impeller | 1 | Ductile Iron Casting | | 52B | Lower Bearing | 1 | ※3 |
| 22 | Suction Cover | 1 | Gray Iron Casting | | 53 | Motor Protector | 1 | |
| 23 | Strainer | 1 | Steel Sheet | | 54 | Shaft | 1 | Stainless Steel 420J2 |
| 24 | Agitator | 1 | Ductile Iron Casting | | 55 | Rotor | 1 | |
| 25 | Mechanical Seal | 1 | ※1 | | 56 | Stator | 1 | |
| 26 | Oil Seal | 1 | ※2 | | 60 | Bearing Housing | 1 | Gray Iron Casting |
| 29 | Oil Casing | 1 | Gray Iron Casting | | 64 | Motor Frame | 1 | Gray Iron Casting |
| 30 | Oil Lifter | 1 | Plastic | | 65 | Outer Cover | 1 | Structure Sheet |
| 32 | Hose Coupling | 1 | Gray Iron Casting | | 68 | Handle | 1 | Steel Sheet & Carbon Steel Pipe |
| 35 | Oil Plug | 1 | Stainless Steel 304 | | 71 | Shaft Sleeve | 1 | Stainless Steel 403 |
| 36 | Lubricant | | Turbine Oil (ISO VG32) | | | | | |
| 46 | Air Release Valve | 1 | Steel Sheet | | | | | |