

# UZ 50 • 80mm

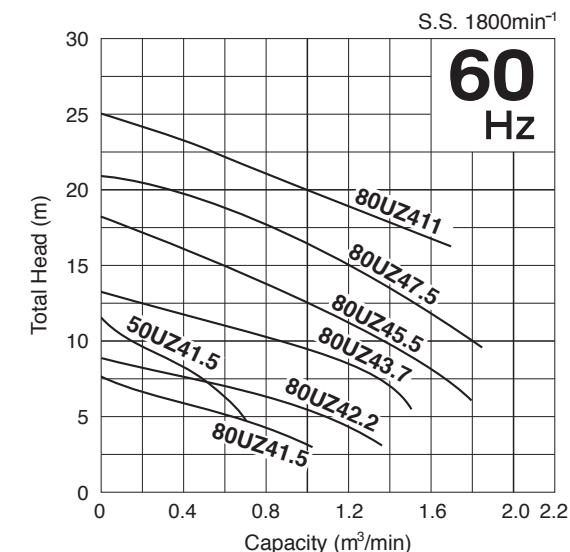
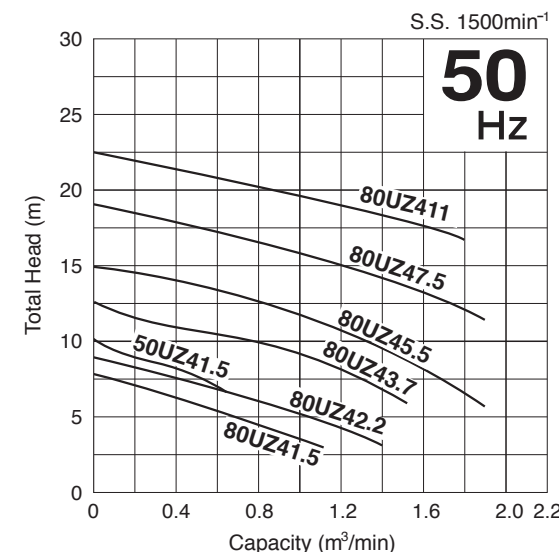
The UZ-series is a vortex pump driven by a 4-pole motor. It has a large solid passage that is equivalent to its discharge diameter and is excellent in the solid handling capability. It offers a practically choking-free operation in sewage pumping.



### Major Standard Specifications

|                      |                              |  |  |    |
|----------------------|------------------------------|--|--|----|
| Discharge Bore       |                              | mm   | 50                                     | 80 |
| Pumping Fluid        | Type of Fluid                | Wastewater, and Liquid carrying Waste and Solid Matters                                    |  |    |
|                      | Fluid Temperature            | 0 to 40°C  |  |    |
| Pump                 | Structure                    | Impeller   | Vortex Impeller                        |    |
|                      |                              | Shaft Seal   | Double Mechanical Seal with Oil Lifter |    |
|                      |                              | Bearing  | Double-shielded Ball Bearing           |    |
|                      | Materials                    | Impeller   | Gray Iron Casting                      |    |
|                      |                              | Shaft Seal   | SiC                                    |    |
| Motor                | Type, Pole                   | Dry Type Submersible Induction Motor<br>4-pole   |  |    |
|                      | Class of Insulation          | Class E (3.7kW and below)<br>Class F (5.5kW and above)                                     |  |    |
|                      | Phase                        | Three-phase  |  |    |
|                      | Starting Method              | Direct on Line<br>Star-delta (11kW only)   |  |    |
|                      | Protection Device (built-in) | Circle Thermal Protector (7.5kW and below)<br>Miniature Thermal Protector (11kW and above) |  |    |
|                      | Lubricant                    | Turbine Oil (ISO VG32)   |  |    |
|                      | Materials                    | Frame  | Gray Iron Casting                      |    |
|                      |                              | Shaft  | 420 Stainless Steel                    |    |
| Cable                |                              | PVC (3.7kW and below)<br>Chloroprene Rubber (5.5kW and above)                              |  |    |
| Discharge Connection |                              | Screwed Flange (50UZ41.5 only)<br>JIS 10K Flange   |  |    |

### Performance Curves



\* Standard, Automatic and Auto-Alternation models have the identical performance.

### Standard Specifications

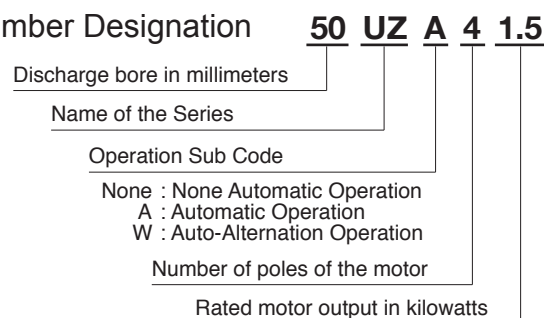
| Discharge Bore<br>mm | Standard Model |                    |            | Automatic Model |                    |             | Auto-Alternation Model |                    |             | Motor Output<br>kW | Starting Method | Speed (S.S.)<br>50Hz/60Hz<br>min <sup>-1</sup> | Impeller Passage<br>50Hz/60Hz<br>mm | Dry Weight * kgs |                                    |                    |               | Cabletyre Cable |                                |                         |                                |                     |          |                         |
|----------------------|----------------|--------------------|------------|-----------------|--------------------|-------------|------------------------|--------------------|-------------|--------------------|-----------------|--|-------------------------------------|------------------|------------------------------------|--------------------|---------------|-----------------|--------------------------------|-------------------------|--------------------------------|---------------------|----------|-------------------------|
|                      | Free Standing  | Guide Rail Fitting |            | Free Standing   | Guide Rail Fitting |             | Free Standing          | Guide Rail Fitting |             |                    |                 |  |                                     | Standard Model   | Automatic & Auto-Alternation Model |                    | No. of Cables | 200 ~ 240 V     |                                | 380 ~ 575 V             |                                | Length<br>m         | Material |                         |
|                      |                | TOS                | TS         |                 | TOS                | TS          |                        | TOS                | TS          |                    |                 |  |                                     |                  | Free Standing                      | Guide Rail Fitting |               | Free Standing   | Guide Rail Fitting             | Cores × mm <sup>2</sup> | Outer Dia. mm                  |                     |          | Cores × mm <sup>2</sup> |
| 50                   | 50UZ41.5       | TOS50UZ41.5        | TS50UZ41.5 | 50UZA41.5       | TOS50UZA41.5       | TS50UZA41.5 | 50UZW41.5              | TOS50UZW41.5       | TS50UZW41.5 | 1.5                | D.O.L.          | 1500/1800                                      | 50                                  | 52.0             | 50.0                               | 58.0               | 56.0          | 1               | 4 × 1.25                       | 11.1                    | 4 × 1.25                       | 11.1                | 6        | PVC                     |
| 80                   | 80UZ41.5       | TOS80UZ41.5        | TS80UZ41.5 | 80UZA41.5       | TOS80UZA41.5       | TS80UZA41.5 | 80UZW41.5              | TOS80UZW41.5       | TS80UZW41.5 | 1.5                | D.O.L.          | 1500/1800                                      | 80                                  | 66.0             | 56.0                               | 73.0               | 63.0          | 1               | 4 × 1.25                       | 11.1                    | 4 × 1.25                       | 11.1                | 6        | PVC                     |
| 80                   | 80UZ42.2       | TOS80UZ42.2        | TS80UZ42.2 | 80UZA42.2       | TOS80UZA42.2       | TS80UZA42.2 | 80UZW42.2              | TOS80UZW42.2       | TS80UZW42.2 | 2.2                | D.O.L.          | 1500/1800                                      | 80                                  | 66.0             | 57.0                               | 73.0               | 64.0          | 1               | 4 × 2.0                        | 11.8                    | 4 × 2.0                        | 11.8                | 6        | PVC                     |
| 80                   | 80UZ43.7       | TOS80UZ43.7        | TS80UZ43.7 | 80UZA43.7       | TOS80UZA43.7       | TS80UZA43.7 | 80UZW43.7              | TOS80UZW43.7       | TS80UZW43.7 | 3.7                | D.O.L.          | 1500/1800                                      | 80                                  | 72.0             | 63.0                               | 79.0               | 70.0          | 1               | 4 × 3.5                        | 13.9                    | 4 × 2.0                        | 11.8                | 6        | PVC                     |
| 80                   | 80UZ45.5       | TOS80UZ45.5        | TS80UZ45.5 | —               | —                  | —           | —                      | —                  | —           | 5.5                | D.O.L.          | 1500/1800                                      | 80                                  | 131.0            | 126.5                              | —                  | —             | 1               | 4 × 3.5                        | 14.1                    | 4 × 3.5                        | 14.1                | 8        | Chloroprene Rubber      |
| 80                   | 80UZ47.5       | TOS80UZ47.5        | TS80UZ47.5 | —               | —                  | —           | —                      | —                  | —           | 7.5                | D.O.L.          | 1500/1800                                      | 80                                  | 138.0            | 133.5                              | —                  | —             | 1               | 4 × 5.5                        | 16.8                    | 4 × 5.5                        | 16.8                | 8        | Chloroprene Rubber      |
| 80                   | 80UZ411        | TOS80UZ411         | TS80UZ411  | —               | —                  | —           | —                      | —                  | —           | 11                 | Star-Delta      | 1500/1800                                      | 80                                  | 171.5            | 167.0                              | —                  | —             | 3               | 4 × 3.5<br>3 × 3.5<br>2 × 1.25 | 14.1<br>12.9<br>9.8     | 4 × 3.5<br>3 × 3.5<br>2 × 1.25 | 14.1<br>12.9<br>9.8 | 8        | Chloroprene Rubber      |

\* Dry weight  
All weights excluding cable  
Weights of guide rail fitting excluding duckfoot bend

### Applications

- Transferring sewage and wastewater to wastewater treatment plant
- Draining wastewater from industrial plant
- Draining effluent from residence, hotel, commercial complex, etc

### Model Number Designation



### Standard Accessories

#### Free Standing

- Discharge Bend (with Packing & Bolts)
- Screwed Flange -50UZ41.5 only
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)

#### Guide Rail Fitting - TOS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)
- Foundation Bolts (with Nuts)

#### Guide Rail Fitting - TS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)

# UZ 100mm

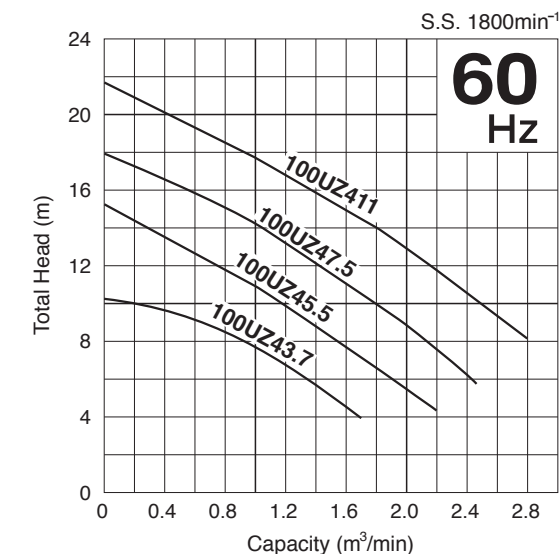
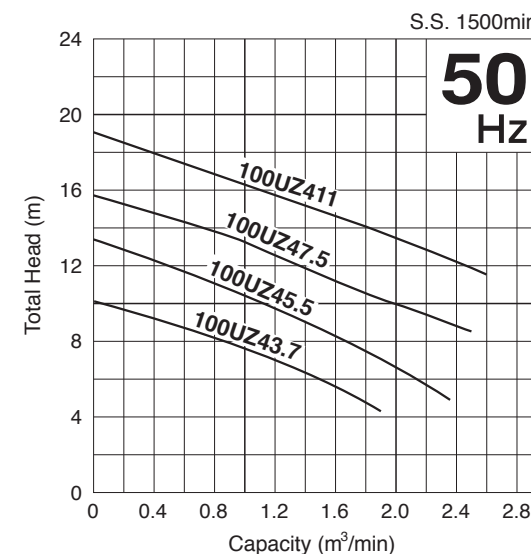
The UZ-series is a vortex pump driven by a 4-pole motor. It has a large solid passage that is equivalent to its discharge diameter and is excellent in the solid handling capability. It offers a practically choking-free operation in sewage pumping.



### Major Standard Specifications

|                      |                              |  |  |  |
|----------------------|------------------------------|--|--|--|
| Discharge Bore       |                              | mm   | 100                                    |  |
| Pumping Fluid        | Type of Fluid                | Wastewater, and Liquid carrying Waste and Solid Matters                                    |  |  |
|                      | Fluid Temperature            | 0 to 40°C  |  |  |
| Pump                 | Structure                    | Impeller   | Vortex Impeller                        |  |
|                      |                              | Shaft Seal   | Double Mechanical Seal with Oil Lifter |  |
|                      |                              | Bearing  | Double-shielded Ball Bearing           |  |
|                      | Materials                    | Impeller   | Gray Iron Casting                      |  |
|                      |                              | Casing   | Gray Iron Casting                      |  |
| Shaft Seal           | SiC                          |  |  |  |
| Motor                | Type, Pole                   | Dry Type Submersible Induction Motor<br>4-pole   |  |  |
|                      | Class of Insulation          | Class E (3.7kW only)<br>Class F  |  |  |
|                      | Phase                        | Three-phase  |  |  |
|                      | Starting Method              | Direct on Line<br>Star-delta (11kW only)   |  |  |
|                      | Protection Device (built-in) | Circle Thermal Protector (7.5kW and below)<br>Miniature Thermal Protector (11kW and above) |  |  |
|                      | Lubricant                    | Turbine Oil (ISO VG32)   |  |  |
|                      | Materials                    | Frame  | Gray Iron Casting                      |  |
|                      |                              | Shaft  | 420 Stainless Steel                    |  |
| Cable                |                              | PVC (3.7kW only)<br>Chloroprene Rubber   |  |  |
| Discharge Connection |                              | JIS 10K Flange   |  |  |

### Performance Curves



\* Standard, Automatic and Auto-Alternation models have the identical performance.

### Standard Specifications

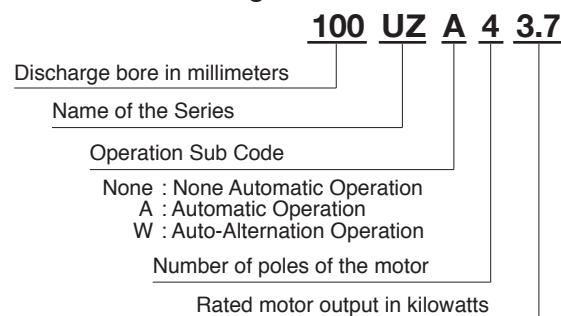
| Discharge Bore<br>mm | Standard Model |                    |             | Automatic Model |                    |              | Auto-Alternation Model |                    |              | Motor Output<br>kW | Starting Method | Speed (S.S.)<br>50Hz/60Hz<br>min <sup>-1</sup> | Impeller Passage<br>50Hz/60Hz<br>mm | Dry Weight * kgs |                    |                                    |                    | Cabtyre Cable |                                |                     |                                |                     |             |                    |
|----------------------|----------------|--------------------|-------------|-----------------|--------------------|--------------|------------------------|--------------------|--------------|--------------------|-----------------|--|-------------------------------------|------------------|--------------------|------------------------------------|--------------------|---------------|--------------------------------|---------------------|--------------------------------|---------------------|-------------|--------------------|
|                      | Free Standing  | Guide Rail Fitting |             | Free Standing   | Guide Rail Fitting |              | Free Standing          | Guide Rail Fitting |              |                    |                 |  |                                     | Standard Model   |                    | Automatic & Auto-Alternation Model |                    | No. of Cables | 200 ~ 240 V                    |                     | 380 ~ 575 V                    |                     | Length<br>m | Material           |
|                      |                | TOS                | TS          |                 | TOS                | TS           |                        | TOS                | TS           |                    |                 |  |                                     | Free Standing    | Guide Rail Fitting | Free Standing                      | Guide Rail Fitting |               | Cores × mm <sup>2</sup>        | Outer Dia. mm       | Cores × mm <sup>2</sup>        | Outer Dia. mm       |             |                    |
| 100                  | 100UZ43.7      | TOS100UZ43.7       | TS100UZ43.7 | 100UZA43.7      | TOS100UZA43.7      | TS100UZA43.7 | 100UZW43.7             | TOS100UZW43.7      | TS100UZW43.7 | 3.7                | D.O.L.          | 1500/1800                                      | 100                                 | 79.0             | 70.0               | 86.0                               | 77.0               | 1             | 4 × 3.5                        | 13.9                | 4 × 2.0                        | 11.8                | 6           | PVC                |
| 100                  | 100UZ45.5      | TOS100UZ45.5       | TS100UZ45.5 | —               | —                  | —            | —                      | —                  | —            | 5.5                | D.O.L.          | 1500/1800                                      | 100                                 | 147.0            | 136.0              | —                                  | —                  | 1             | 4 × 3.5                        | 14.1                | 4 × 3.5                        | 14.1                | 8           | Chloroprene Rubber |
| 100                  | 100UZ47.5      | TOS100UZ47.5       | TS100UZ47.5 | —               | —                  | —            | —                      | —                  | —            | 7.5                | D.O.L.          | 1500/1800                                      | 100                                 | 154.5            | 143.5              | —                                  | —                  | 1             | 4 × 5.5                        | 16.8                | 4 × 5.5                        | 16.8                | 8           | Chloroprene Rubber |
| 100                  | 100UZ411       | TOS100UZ411        | TS100UZ411  | —               | —                  | —            | —                      | —                  | —            | 11                 | Star-Delta      | 1500/1800                                      | 100                                 | 184.5            | 173.5              | —                                  | —                  | 3             | 4 × 3.5<br>3 × 3.5<br>2 × 1.25 | 14.1<br>12.9<br>9.8 | 4 × 3.5<br>3 × 3.5<br>2 × 1.25 | 14.1<br>12.9<br>9.8 | 8           | Chloroprene Rubber |

\* Dry weight  
All weights excluding cable  
Weights of guide rail fitting excluding duckfoot bend

### Applications

- Transferring sewage and wastewater to wastewater treatment plant
- Draining wastewater from industrial plant
- Draining effluent from residence, hotel, commercial complex, etc

### Model Number Designation



### Standard Accessories

#### Free Standing

- Discharge Bend (with Packing & Bolts)
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)

#### Guide Rail Fitting - TOS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)
- Foundation Bolts (with Nuts)

#### Guide Rail Fitting - TS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)