

Series:
UT
Discharge Bore:
40·50mm
Motor Output / Pole:
0.25 - 0.75kW / 2-pole


The UT-series is an economical type submersible vortex pump designed for handling raw sewage and wastewater from domestic and commercial areas. Rotation of the impeller produces vortex flow in the pump casing, which allows solid matters and fibrous materials to be pumped out with minimum contact to the impeller. Since this mechanism does not require those solid matters to pass through the impeller vane, the pump offers practically unchokable pumping.

Guide Rail Fitting System

The guide rail fitting system connects the pump to and from the piping easily just by lowering or hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump. Tsurumi "TOK" type resin-made guide rail fitting system can be used with every UT-series.

Automatic Model

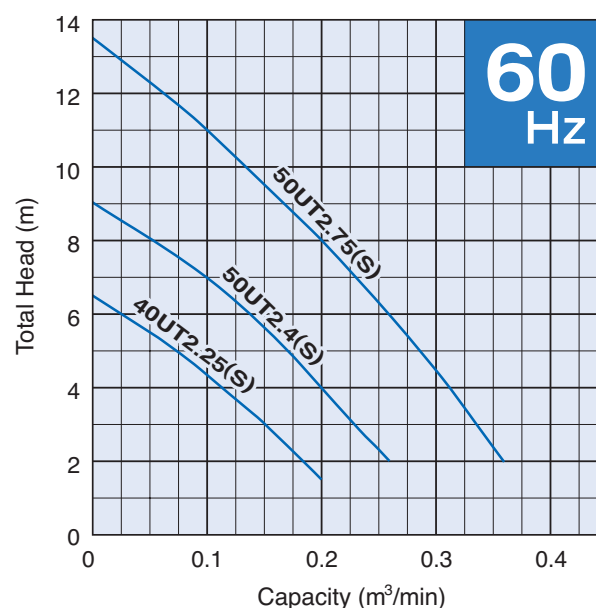
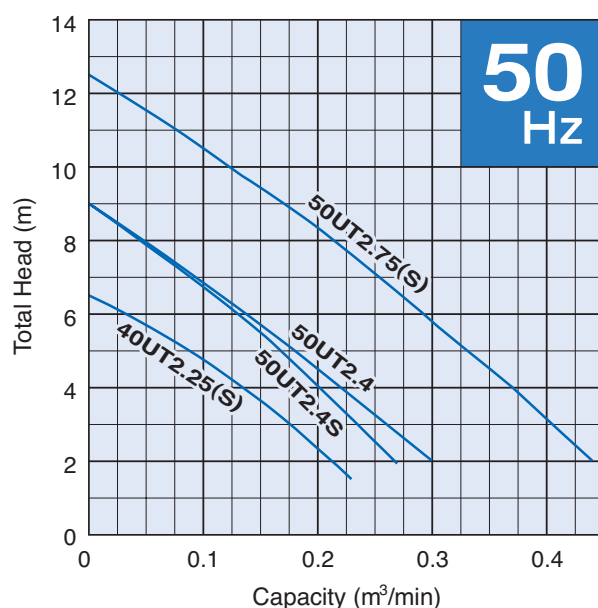
Automatic model is available in single-phase. It has a single float switch and automatically operates according to the fluctuation of water level.

Selection Table

Model		Discharge Bore mm	Motor Output kW	Phase	Pole	Optional Accessories for Guide Rail Fitting System
Standard	Automatic					
40UT2.25S	40UTZ2.25S	40	0.25	1-phase	2	TOK4-A
40UT2.25	—	40	0.25	3-phase	2	TOK4-A
50UT2.4S	50UTZ2.4S	50	0.4	1-phase	2	TOK4-A
50UT2.4	—	50	0.4	3-phase	2	TOK4-A
50UT2.75S	50UTZ2.75S	50	0.75	1-phase	2	TOK4-A
50UT2.75	—	50	0.75	3-phase	2	TOK4-A

Performance Curves

Standard and Automatic models have the identical performance.



SPECIFICATIONS	Model	40UT2.25	UT-series								
			0.25kW, 3-phase								
<p>Type of Pump Submersible cast iron vortex pump suitable for pumping sewage and wastewater</p> <p>Type of Fluid Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 40mm, Threaded Oval Flange</p> <p>Motor Output 0.25kW</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: E 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 – 1.1A</td><td>220V – 1.8A</td></tr><tr><td>400V – 1.2A</td><td>380V – 0.9A</td></tr><tr><td>415V – 1.3A</td><td>440V – 0.8A</td></tr></table> <p>Power Cable Sheath: PVC Standard Length: 10m 200 to 600V supply: 1 × 4 × 1.25mm², O.D. 11.1mm</p> <p>Dry Weight (excluding cable) 13kg</p>		50Hz	60Hz	380V – 1.1A	220V – 1.8A	400V – 1.2A	380V – 0.9A	415V – 1.3A	440V – 0.8A	<p>Impeller Vortex impeller made of glass-fiber reinforced PPO</p> <p>Solids Passage 50Hz – ϕ35mm 60Hz – ϕ35mm</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 403 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: Ceramic + Carbon Lower Seal Face: SiC + Ceramic</p> <p>OIL LIFTER 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), 160ml</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 – 1.1A	220V – 1.8A										
400V – 1.2A	380V – 0.9A										
415V – 1.3A	440V – 0.8A										
<p>Optional Accessories</p> <p>TOK Set (Guide Rail Fitting Type)</p> <ul style="list-style-type: none">• Duckfoot Bend• Guide Support• Guide Hook• Lifting Chain 4m (with Shackles)											
TSURUMI MANUFACTURING CO., LTD.											

SPECIFICATIONS	Model	50UT2.4S	UT-series							
			0.4kW, 1-phase							
<p>Type of Pump Submersible cast iron vortex pump suitable for pumping sewage and wastewater</p> <p>Type of Fluid Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 50mm, Threaded Oval Flange</p> <p>Motor Output 0.4kW</p> <p>Power Supply Single-phase</p> <p>Starting Method Capacitor Run</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) 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>220V – 3.1A</td><td>110V – 6.1A</td></tr><tr><td>230V – 3.0A</td><td>220V – 3.3A</td></tr><tr><td>240V – 2.9A</td><td></td></tr></table> <p>Power Cable Sheath: H07RN-F Standard Length: 10m 100 to 240V supply: 1 × 3 × 1.00mm², O.D. 9.0mm</p> <p>Dry Weight (excluding cable)</p> <p>Standard Model: 13.5kg Automatic Model: 13.5kg</p>		50Hz	60Hz	220V – 3.1A	110V – 6.1A	230V – 3.0A	220V – 3.3A	240V – 2.9A		<p>Impeller Vortex impeller made of glass-fiber reinforced PPO</p> <p>Solids Passage 50Hz – ϕ35mm 60Hz – ϕ35mm</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 403 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: Ceramic + Carbon Lower Seal Face: SiC + Ceramic</p> <p>OIL LIFTER 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), 160ml</p> <p>Motor Protection Device A miniature thermal protector is embedded in winding of the motor. Directly cuts the motor circuit if excessive heat builds up in the motor.</p>
50Hz	60Hz									
220V – 3.1A	110V – 6.1A									
230V – 3.0A	220V – 3.3A									
240V – 2.9A										
<p>Optional Accessories</p> <p>TOK Set (Guide Rail Fitting Type)</p> <ul style="list-style-type: none">• Duckfoot Bend• Guide Support• Guide Hook• Lifting Chain 4m (with Shackles)										
TSURUMI MANUFACTURING CO., LTD.										

SPECIFICATIONS	Model	50UT2.4	UT-series								
			0.4kW, 3-phase								
<p>Type of Pump Submersible cast iron vortex pump suitable for pumping sewage and wastewater</p> <p>Type of Fluid Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 50mm, Threaded Oval Flange</p> <p>Motor Output 0.4kW</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: E 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 – 1.2A</td><td>220V – 2.2 A</td></tr><tr><td>400V – 1.3A</td><td>380V – 1.2 A</td></tr><tr><td>415V – 1.4A</td><td>440V – 1.05A</td></tr></table> <p>Power Cable Sheath: PVC Standard Length: 10m 200 to 600V supply: 1 × 4 × 1.25mm², O.D. 11.1mm</p> <p>Dry Weight (excluding cable) 13kg</p>		50Hz	60Hz	380V – 1.2A	220V – 2.2 A	400V – 1.3A	380V – 1.2 A	415V – 1.4A	440V – 1.05A	<p>Impeller Vortex impeller made of glass-fiber reinforced PPO</p> <p>Solids Passage 50Hz – ϕ35mm 60Hz – ϕ35mm</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 403 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: Ceramic + Carbon Lower Seal Face: SiC + Ceramic</p> <p>OIL LIFTER 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), 160ml</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 – 1.2A	220V – 2.2 A										
400V – 1.3A	380V – 1.2 A										
415V – 1.4A	440V – 1.05A										
<p>Optional Accessories</p> <p>TOK Set (Guide Rail Fitting Type)</p> <ul style="list-style-type: none">• Duckfoot Bend• Guide Support• Guide Hook• Lifting Chain 4m (with Shackles)											
TSURUMI MANUFACTURING CO., LTD.											

SPECIFICATIONS	Model	50UT2.75S	UT-series							
			0.75kW, 1-phase							
<p>Type of Pump Submersible cast iron vortex pump suitable for pumping sewage and wastewater</p> <p>Type of Fluid Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 50mm, Threaded Oval Flange</p> <p>Motor Output 0.75kW</p> <p>Power Supply Single-phase</p> <p>Starting Method Capacitor Run</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) 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>220V – 5.3A</td><td>110V – 11.6A</td></tr><tr><td>230V – 5.3A</td><td>220V – 5.8A</td></tr><tr><td>240V – 4.5A</td><td></td></tr></table> <p>Power Cable Sheath: H07RN-F Standard Length: 10m 100 to 240V supply: 1 × 3 × 1.00mm², O.D. 9.0mm</p> <p>Dry Weight (excluding cable) Standard Model: 16.5kg Automatic Model: 16.5kg</p>		50Hz	60Hz	220V – 5.3A	110V – 11.6A	230V – 5.3A	220V – 5.8A	240V – 4.5A		<p>Impeller Vortex impeller made of glass-fiber reinforced PPO</p> <p>Solids Passage 50Hz – ϕ35mm 60Hz – ϕ35mm</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 403 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: Ceramic + Carbon Lower Seal Face: SiC + Ceramic</p> <p>OIL LIFTER 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), 160ml</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									
220V – 5.3A	110V – 11.6A									
230V – 5.3A	220V – 5.8A									
240V – 4.5A										
<p>Optional Accessories</p> <p>TOK Set (Guide Rail Fitting Type)</p> <ul style="list-style-type: none">• Duckfoot Bend• Guide Support• Guide Hook• Lifting Chain 4m (with Shackles)										
TSURUMI MANUFACTURING CO., LTD.										

SPECIFICATIONS	Model	50UT2.75	UT-series								
			0.75kW, 3-phase								
<p>Type of Pump Submersible cast iron vortex pump suitable for pumping sewage and wastewater</p> <p>Type of Fluid Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 50mm, Threaded Oval Flange</p> <p>Motor Output 0.75kW</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: E 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 – 2.0A</td><td>220V – 3.3 A</td></tr><tr><td>400V – 2.0A</td><td>380V – 1.8 A</td></tr><tr><td>415V – 2.1A</td><td>440V – 1.75A</td></tr></table> <p>Power Cable Sheath: PVC Standard Length: 5m 200 to 600V supply: 1 × 4 × 1.25mm², O.D. 11.1mm</p> <p>Dry Weight (excluding cable) 15.5kg</p>		50Hz	60Hz	380V – 2.0A	220V – 3.3 A	400V – 2.0A	380V – 1.8 A	415V – 2.1A	440V – 1.75A	<p>Impeller Vortex impeller made of glass-fiber reinforced PPO</p> <p>Solids Passage 50Hz – ϕ35mm 60Hz – ϕ35mm</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 403 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: Ceramic + Carbon Lower Seal Face: SiC + Ceramic</p> <p>OIL LIFTER 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), 160ml</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 – 2.0A	220V – 3.3 A										
400V – 2.0A	380V – 1.8 A										
415V – 2.1A	440V – 1.75A										
<div>Optional Accessories</div> <p>TOK Set (Guide Rail Fitting Type)</p> <ul style="list-style-type: none">• Duckfoot Bend• Guide Support• Guide Hook• Lifting Chain 4m (with Shackles)											
TSURUMI MANUFACTURING CO., LTD.											

DIMENSIONS

Model

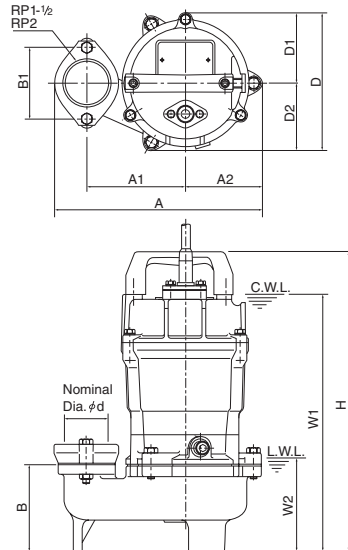
40UT(Z)2.25S to 50UT2.75

UT-series

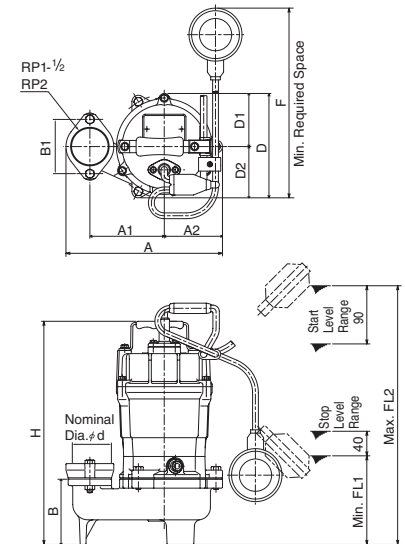
40·50mm

Free Standing Type

Standard Model



Automatic Model



Standard Model

Model	d	A	A1	A2	B	B1	D	D1	D2	W1	W2	H
40UT2.25S	40	239	115	90	101	84	161	82	79	300	110	350
40UT2.25	40	239	115	90	101	84	161	82	79	300	110	350
50UT2.4S	50	242	115	90	101	84	161	82	79	300	110	350
50UT2.4	50	242	115	90	101	84	161	82	79	300	110	350
50UT2.75S	50	242	115	90	101	84	161	82	79	350	110	406
50UT2.75	50	242	115	90	101	84	161	82	79	330	110	387

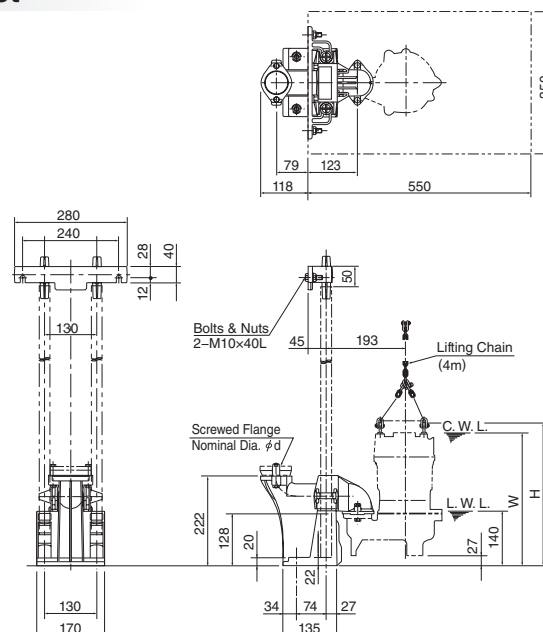
Unit: mm

Automatic Model

Model	d	A	A1	A2	B	B1	D	D1	D2	F	H	FL1	FL2
40UTZ2.25S	40	239	115	90	101	84	161	82	79	293	345	140	400
50UTZ2.4S	50	242	115	90	101	84	161	82	79	293	345	140	400
50UTZ2.75S	50	242	115	90	101	84	161	82	79	293	401	195	455

Unit: mm

Guide Rail Fitting Type: TOK Set



Model	d	W	H
40UT2.25S	40	330	354
40UT2.25	40	330	354
50UT2.4S	50	330	354
50UT2.4	50	330	354
50UT2.75S	50	380	410
50UT2.75	50	360	391

Unit: mm