

# U 40 • 50mm

The U-series is a vortex pump powered by a 2-pole motor. The impeller produces vortex flow that allows fibrous materials and solid matters to be pumped out with minimum contact to the impeller. It offers a practically choking-free operation in sewage pumping.

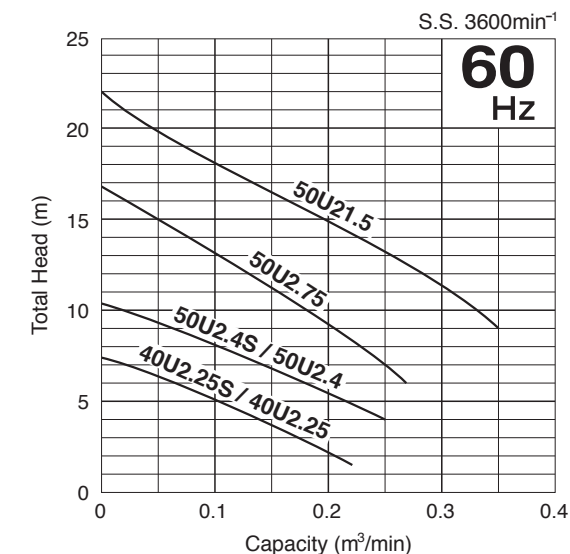
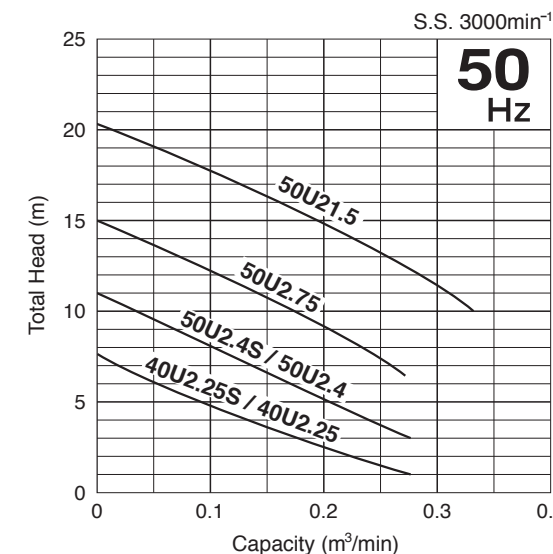


Free Standing Guide Rail Fitting

### Major Standard Specifications

Discharge Bore	mm	40	50	
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 2-pole		
	Class of Insulation	Class E Class F (1.5kW only)		
	Phase	Single-phase (suffix "S") Three-phase		
	Starting Method	Split-phase Start (single-phase, 0.25kW only) Capacitor Start (single-phase, 0.4kW only) Direct on Line		
	Protection Device (built-in)	Circle Thermal Protector		
	Lubricant	Turbine Oil (ISO VG32)		
	Materials	Frame	Gray Iron Casting	
		Shaft	420 Stainless Steel	
		Cable	PVC	
	Discharge Connection	Screwed Flange		

### Performance Curves



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

### Standard Specifications

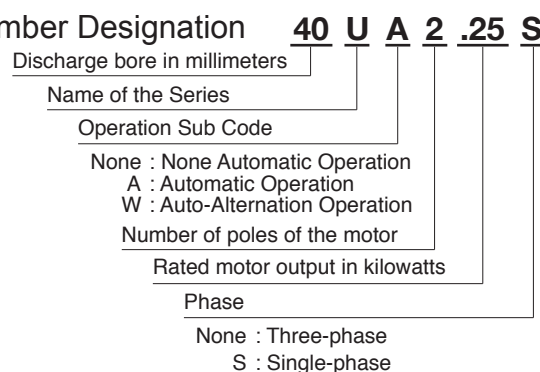
Discharge Bore mm	Standard Model		Automatic Model		Auto-Alternation Model		Motor Output kW	Starting Method	Speed (S.S.) 50Hz/60Hz min <sup>-1</sup>	Impeller Passage 50Hz/60Hz mm	Dry Weight * kgs				Cable						
	Free Standing	Guide Rail Fitting	Free Standing	Guide Rail Fitting	Free Standing	Guide Rail Fitting					Standard Model		Automatic & Auto-Alternation Model		No. of Cables	200 ~ 240 V		380 ~ 575 V		Length m	Material
											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		
40	40U2.25S	(TOK)	40UA2.25S	(TOK)	40UW2.25S	(TOK)	0.25	Split-phase	3000/3600	35	14.0	—	14.5	—	1	3 × 1.25 <sup>110~120V</sup>	10.1	3 × 1.25 <sup>220~240V</sup>	10.1	5	PVC
40	40U2.25	(TOK)	40UA2.25	(TOK)	40UW2.25	(TOK)	0.25	D.O.L.	3000/3600	35	13.5	—	14.5	—	1	4 × 1.25	11.1	4 × 1.25	11.1	6	PVC
50	50U2.4S	(TOK)	50UA2.4S	(TOK)	50UW2.4S	(TOK)	0.4	Capacitor	3000/3600	35	20.0	—	20.5	—	1	3 × 1.25 <sup>110~120V</sup>	10.1	3 × 1.25 <sup>220~240V</sup>	10.1	5	PVC
50	50U2.4	(TOK)	50UA2.4	(TOK)	50UW2.4	(TOK)	0.4	D.O.L.	3000/3600	35	19.2	—	19.7	—	1	4 × 1.25	11.1	4 × 1.25	11.1	6	PVC
50	50U2.75	(TOK)	50UA2.75	(TOK)	50UW2.75	(TOK)	0.75	D.O.L.	3000/3600	35	22.7	—	23.5	—	1	4 × 1.25	11.1	4 × 1.25	11.1	6	PVC
50	50U21.5	TOS50U21.5	50UA21.5	TOS50UA21.5	50UW21.5	TOS50UW21.5	1.5	D.O.L.	3000/3600	35	31.4	36.4	32.2	27.2	1	4 × 1.25	11.1	4 × 1.25	11.1	6	PVC

\* 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

#### 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 - TOK

- Lifting Chain 4m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook
- Duckfoot Bend

# U 80mm

The U-series is a vortex pump powered by a 2-pole motor. The impeller produces vortex flow that allows fibrous materials and solid matters to be pumped out with minimum contact to the impeller. It offers a practically choking-free operation in sewage pumping.

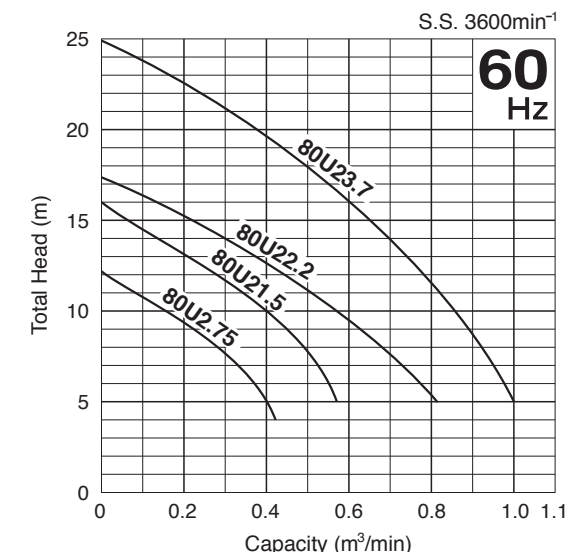
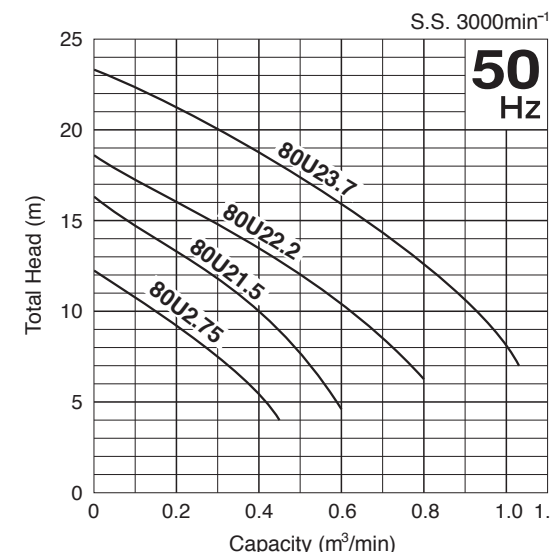


Free Standing      Guide Rail Fitting

### Major Standard Specifications

Discharge Bore		mm	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 2-pole		
	Class of Insulation	Class E (0.75kW only) Class F		
	Phase	Three-phase		
	Starting Method	Direct on Line		
	Protection Device (built-in)	Circle Thermal Protector		
	Lubricant	Turbine Oil (ISO VG32)		
	Materials	Frame	Gray Iron Casting	
		Shaft	420 Stainless Steel	
Cable		PVC		
Discharge Connection		Screwed Flange (1.5kW and below) JIS 10K Flange (2.2kW and above)		

### Performance Curves



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

### Standard Specifications

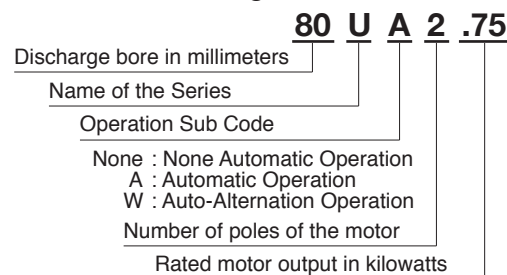
Discharge Bore mm	Standard Model		Automatic Model		Auto-Alternation Model		Motor Output kW	Starting Method	Speed (S.S.) 50Hz/60Hz min <sup>-1</sup>	Impeller Passage 50Hz/60Hz mm	Dry Weight * kgs				Cable						
	Free Standing	Guide Rail Fitting	Free Standing	Guide Rail Fitting	Free Standing	Guide Rail Fitting					Standard Model		Automatic & Auto-Alternation Model		No. of Cables	200 ~ 240 V		380 ~ 575 V		Length m	Material
											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		
80	80U2.75	TOS80U2.75	80UA2.75	TOS80UA2.75	80UW2.75	TOS80UW2.75	0.75	D.O.L.	3000/3600	46	28.5	24.3	29.3	25.1	1	4 × 1.25	11.1	4 × 1.25	11.1	6	PVC
80	80U21.5	TOS80U21.5	80UA21.5	TOS80UA21.5	80UW21.5	TOS80UW21.5	1.5	D.O.L.	3000/3600	46	41.5	37.5	42.3	38.3	1	4 × 1.25	11.1	4 × 1.25	11.1	6	PVC
80	80U22.2	TOS80U22.2	80UA22.2	TOS80UA22.2	80UW22.2	TOS80UW22.2	2.2	D.O.L.	3000/3600	56	56.0	52.0	66.0	62.0	1	4 × 2.0	11.8	4 × 2.0	11.8	6	PVC
80	80U23.7	TOS80U23.7	80UA23.7	TOS80UA23.7	80UW23.7	TOS80UW23.7	3.7	D.O.L.	3000/3600	56	71.0	67.0	81.0	77.0	1	4 × 3.5	13.9	4 × 2.0	11.8	6	PVC

\* 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
- -1.5kW and below
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)
- -2.2kW and above

#### 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)