

**SPECIFICATIONS** 

Model

# 80PU23.7

**PU-series** 

3.7kW, 3-phase

## Type of Pump

Submersible vortex pump made of 304 stainless steel and resin suitable for pumping sewage, wastewater, storm water, etc.

#### Type of Fluid

Sewage, wastewater, and water carrying solid matters

Temperature: 0 to 40°C

#### **Discharge Bore**

80mm

#### **Motor Output**

3.7kW

## **Power Supply**

Three-phase

#### Starting Method

Direct on Line

#### Motor

Continuous-duty rated, dry-type induction motor

Insulation Class: E

Degree of Protection: IP68

No. of Poles & Speed (Synchronous Speed)

2-pole, 3000/3600min-1 (50/60Hz)

Power Supply Voltages & Rated Currents

50Hz 60Hz

380V - 7.9A 220V - 13.4A 400V - 7.5A 380V - 7.8A 415V - 7.5A 440V - 6.7A

## **Power Cable**

Sheath: PVC

Standard Length: 6m 380 to 600V supply:

 $1 \times 4 \times 2.0$  mm<sup>2</sup>, O.D. 11.8 mm

200 to 240V supply:

 $1\times4\times3.5mm^2,\,O.D.\,13.9mm$ 

## Dry Weight (excluding cable)

Standard Model: 27kg

Auto & Auto-Alternation Model: 28kg

#### Impeller

Vortex impeller made of glass-fiber reinforced PA+ABS

Solids Passage 50Hz –  $\phi$ 46mm 60Hz –  $\phi$ 46mm

### **Cable Entry with Anti-Wicking Block**

Watertight cable entry with strain-relief device. The antiwicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.

#### **Bearings**

Permanently lubricated, deep-groove, double-shielded C3 ball bearings

#### Shaft

304 stainless steel

#### 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.

Upper Seal Faces: Ceramic + Carbon

Lower Seal Faces: SiC + SiC

#### **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.

Type of Lubricating Oil & Volume Liquid Paraffin (ISO VG32), 680ml

#### **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.

# Optional Accessories

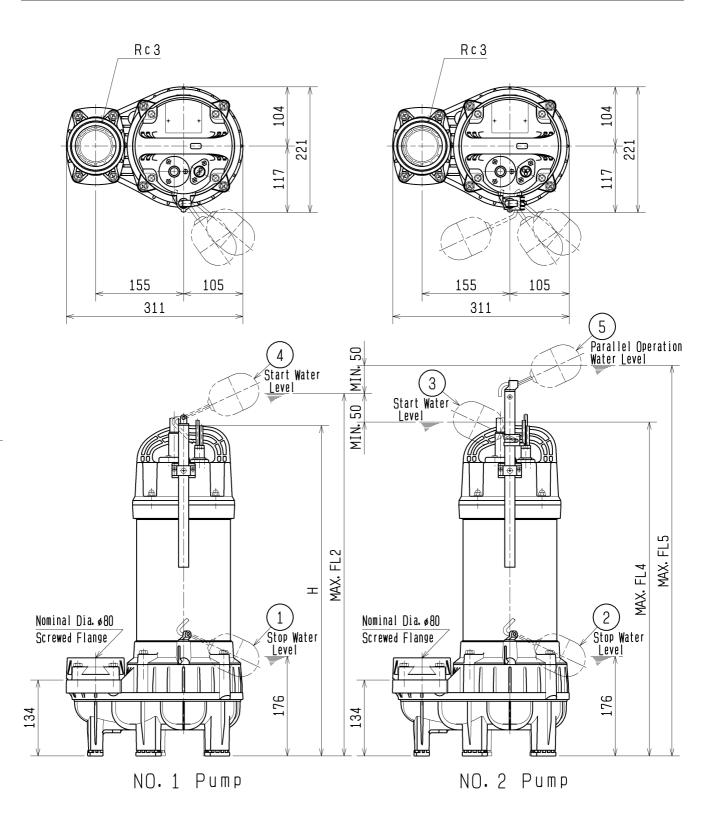
**TOK Set** (Guide Rail Fitting Type)

- Duckfoot Bend
- Guide Support
- Guide Hook
- · Lifting Chain 5m (with Shackles)

NO. A-20159-1 PUMP PERFORMANCE CURVES TYPE Sewage MODEL FREQUENCY 80PU (A/W) 23, 7 -51 Submersible Vortex Pump 50 Ηz CUSTOMER'S NAME EQUIPMENT TITLE NO. STANDARD SPECIFICATIONS REQUIRED SPECIFICATIONS 80 DISCHARGE BORE Max. 23. 9 TOTAL HEAD m Ш Max. 0.95  ${\rm m}^{\,3}/\,{\rm min}$ m³/min CAPACITY 3.7 MOTOR OUTPUT k W kW3 Ø× PHASE × VOLTAGE ٧ φX CURRENT Α  $min^{-1}$ 2 P/ S. S. 3000 min<sup>-1</sup> POLES / REVOLUTION STARTING METHOD DIRECT ON LINE INSULATION CLASS Ε REMARKS: 30 100+ +2590+ TOTAL HEAD + 20 +0870+ 60+ + 15PUMP EFF. 50+40+ + 1030 + 6 +20 + 4 + 5OUTPUT 10 + 2 -% k W 0.8 1. 2 0.2 0.4 0.6 1.0 m³/min PUMP MOTOR TOTAL EFF. OUTPUT HEAD CAPACITY TSURUMI MFG. CO., LTD.



DIMENSION DRAWING	No.	No. A-20163-1
TYPE Sewage Submersible Vortex Pump (Auto-Alternation)	MODEL	80PUW22.2 -51/61 80PUW23.7 -51/61



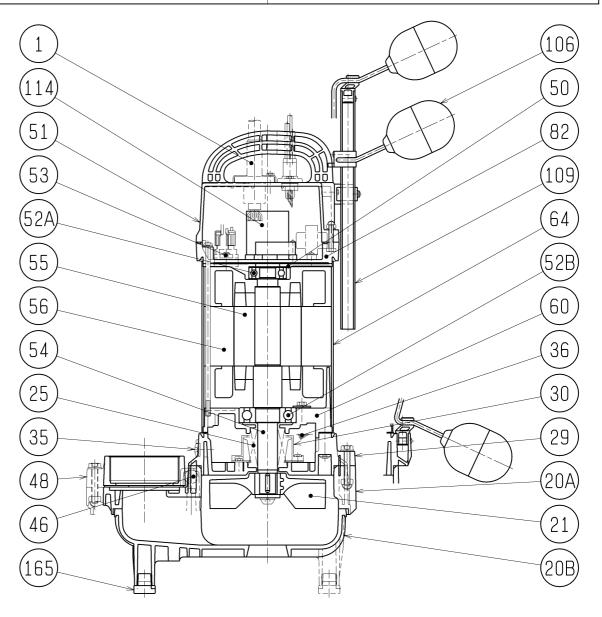
## \*excluding cable

MODEL	FL2	FL4	FL5	Н	Approximate Weight(*)
80PUW22, 2-51/61	791	741	841	583	23kg
80PUW23.7-51/61	826	776	876	618	28kg

No.	Item	Color
1	No.1 Pump Stop Float	Red
	No.2 Pump Stop Float	Red
3	No. 2 Pump Alternate Start Float	Yellow
4	No.1 Pump Start Float	Yellow
6	No.1 Pump No.2 Pump Parallel Operation Float	Green



SECTIONAL DRAWING	No.	No. A-20166-1
TYPE Sewage Submersible Vortex Pump (Auto-Alternation)	MODEL	80PUW22.2 -51/61 80PUW23.7 -51/61



REQ. SPECIFICATION

\*1 Upper and lower blocks form a one-piece casing.

\*2 the wetted part

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No.	DESCRIPTION	Q' TY	MATERIAL / NOTE	No.	DESCRIPTION	Q' TY	MATERIAL / NOTE
1	Cabtyre Cable	1	PVC Sheath	52B	Lower Bearing	1	6306ZZC3
20A	Upper Pump Casing	<b>*1</b>	Plastic W/GF	53	Motor Protector	1	
20B	Lower Pump Casing	1	Plastic W/GF	54	Shaft	1	Stainless Steel 304(*2)
21	Impeller	1	Plastic W/GF	55	Rotor	1	
25	Mechanical Seal	1	H-25AT	56	Stator	1	
29	Oil Casing	1	Plastic W/GF	60	Bearing Housing	1	Aluminium Alloy Casting
30	Oil Lifter	1	Plastic	64	Motor Frame	1	Stainless Steel 304
35	Oil Plug	1	Stainless Steel 304	82	Head Cover Space	r 1	Plastic W/GF
36	Lubricant		Liquid Paraffin (ISO VG32)	106	Float Set	3	Plastic
46	Air Release Valve	1	Glass Ball	109	Float Support Pi	ре 1	PVC
48	Screwed Flange	1	Plastic W/GF	114	Relay Unint	1	
50	Motor Bracket	1	Aluminium Alloy Casting	165	Rubber Foot	5	Nitrile Butadien Rubber
51	Head Cover	1	Plastic W/GF				
52A	Upper Bearing	1	6204ZZC3				