

**SPECIFICATIONS** 

Model

# 100B42.2

**B-series** 

2.2kW, 3-phase

# Type of Pump

Submersible cast iron pump suitable for pumping sewage, wastewater, storm water, etc.

#### Type of Fluid

Sewage, wastewater, and water carrying solid matters

Temperature: 0 to 40°C

(High temperature model available on special request)

#### **Discharge Bore**

100mm

#### **Motor Output**

2.2kW

### **Power Supply**

Three-phase

#### **Starting Method**

Direct on Line

#### Motor

Continuous-duty rated, dry-type induction motor

Insulation Class: E (available in F on special request)

Degree of Protection: IP68

No. of Poles & Speed (Synchronous Speed)

4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)

Power Supply Voltages & Rated Currents

50Hz 60Hz 380V - 5.1A 220V - 8.8A 400V - 5.0A 380V - 4.9A 415V - 5.0A 440V - 4.4A

# **Power Cable**

Sheath: PVC

Standard Length: 6m 380 to 600V supply:

 $1 \times 4 \times 1.25$ mm<sup>2</sup>, O.D. 11.1mm

200 to 240V supply:

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

# Dry Weight (excluding cable)

Free Standing Type: 68kg Guide Rail Fitting Type: 64kg

#### **Impeller**

Semi-open single-channel impeller for solid-handling design, dynamically balanced

Solids Passage 50Hz – 47 × 53mm

 $60Hz - 47 \times 46mm$ 

### **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

420 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 Seal (Lip Seal)

Used as a "Dust Seal", it protects the mechanical seal from abrasive particles.

## **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 Turbine Oil (ISO VG32), 1350ml

# **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

# Bend Set (Free Standing Type)

- Discharge Bend
- JIS 10kg/cm<sup>2</sup> Screwed Flange

# TOS/TS Set (Guide Rail Fitting Type)

- Duckfoot Bend
- Guide Support
- Guide Hook
- · Lifting Chain 5m (with Shackles)
- JIS 10kg/cm<sup>2</sup> Screwed Flange (TOS Set only)

## **External Leakage Sensor**

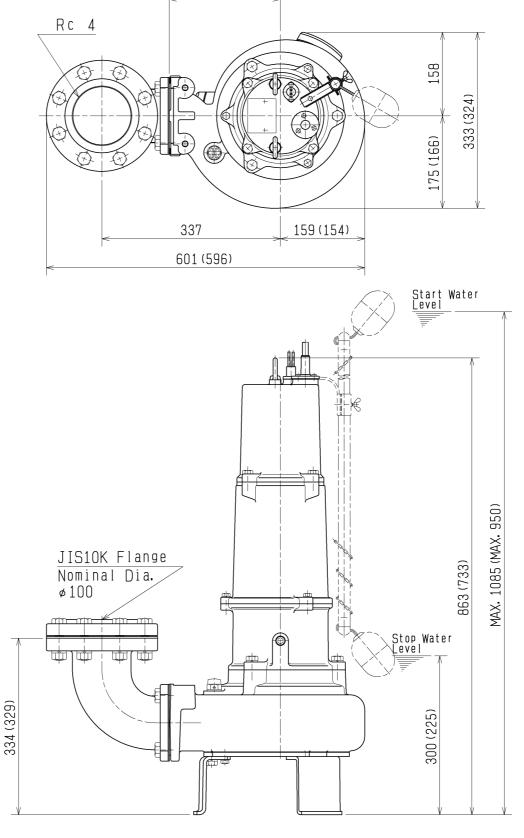
NO. A-07520-1 PUMP PERFORMANCE CURVES Sewage Submersible MODEL (TOS) 100BA42. 2-51 FREQUENCY TYPE Channel Impeller Pump (TOS) 100BW42. 2-51 Ηz CUSTOMER'S NAME EQUIPMENT TITLE NO. STANDARD SPECIFICATIONS REQUIRED SPECIFICATIONS DISCHARGE BORE 100 TOTAL HEAD 10 m m m³/min m³/min CAPACITY 0.6 MOTOR OUTPUT 2.2 k₩ k₩ PHASE \* VOLTAGE 3 ø× ٧ ٧ φX CURRENT min<sup>-1</sup>  $\min^{-1}$ POLES / REVOLUTION 4 P/ S. S. 1500 P/ STARTING METHOD DIRECT ON LINE INSULATION CLASS Ε REMARKS: - 24 100+ + 20 90+ +08+ 16 TO AL HEAD 70+ PUMP EFF 60+ + 1250 +40 +30 + 3 +but ⊉ut 20 + 2 + 410 + 1 +k W 0.2 0.4 0.6 0.8 1.0 1. 2 m³∕min OUT TOTAL PUT HEAD PUMP CAPACITY TSURUMI MFG. CO., LTD.



DIMENSION	DRAWING	No.	No. A-07609-3
TYPE Sewage Submer Channel Impe (A		1001	3A42.2 -51/61 3A43.7 -51/61

210

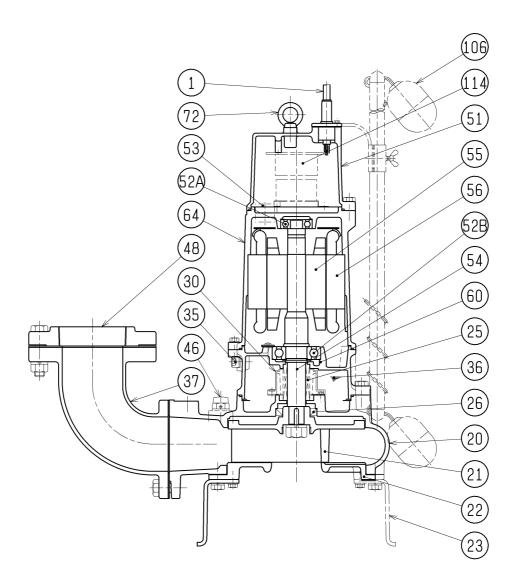
MODEL	Approximate Weight(*)			
100BA42. 2-51/61	78kg			
100BA43. 7-51/61	94kg			
*exclu	ding cable			



The Figure in ( ) shows the dimensions of 100BA42.2.



SECTIONAL	DRAWING	No.	No. A-19420-2
	sible ller Pump utomatic)		100BA42.2 -51/61 100BA43.7 -51/61



	2. 2kW	3. 7k	W	]		REQ. SPECIFICATION			
*1	H-30A	H-35A							
<b>*</b> 2	TC456812	TC50721	.2						
<b>*</b> 3	6307ZZC3	6309ZZC	23	*4 the wetted part					
No.	DESCRIP	TION	Q' TY	MATERIAL / NOTE	No.	DESCRIPT	ION	Q' TY	MATERIAL / NOTE
1	Cabtyre Cab	le	1	PVC Sheath	52A	Upper Bearin	ng	1	6304ZZC3
20	Pump Casing	]	1	Gray Iron Casting	52B	Lower Bearin	ng	1	*3
21	Impeller		1	Gray Iron Casting	53	Motor Protec	ctor	1	
22	Suction Cov	/er	1	Gray Iron Casting	54	Shaft		1	Stainless Steel 420J2(**4)
23	Stand		3	Steel Plate	55	Rotor		1	
25	Mechanical	Seal	1	*1	56	Stator		1	
26	Oil Seal		1	*2	60	Bearing Hous	sing	1	Gray Iron Casting
30	Oil Lifter		1	Plastic	64	Motor Frame		1	Gray Iron Casting
35	Oil Plug		1	Stainless Steel 304	72	Eye Bolt		2	Stainless Steel 304
36	Lubricant			Turbine Oil(ISO VG32)	106	Float		2	Plastic
37	Discharge E	3end	1	Gray Iron Casting	114	Relay Unit		1	
46	Air Release	e Valve	1	Nylon					
48	Screwed Fla	ange	1	Gray Iron Casting					
51	Head Cover		1	Gray Iron Casting					

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