

SPECIFICATIONS	Model	PU-series							
	80PU21.5	1.5kW, 3-phase							
<p><b>Type of Pump</b> Submersible vortex pump made of 304 stainless steel and resin suitable for pumping sewage, wastewater, storm water, etc.</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 80mm</p> <p><b>Motor Output</b> 1.5kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: E Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 4.1A</td> <td>220V – 6.6A</td> </tr> <tr> <td>400V – 4.0A</td> <td>380V – 3.9A</td> </tr> <tr> <td>415V – 4.0A</td> <td>440V – 3.6A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 200 to 600V supply: 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm</p> <p><b>Dry Weight</b> (excluding cable) Standard Model: 16kg Auto &amp; Auto-Alternation Model: 16.9kg</p>	50Hz	60Hz	380V – 4.1A	220V – 6.6A	400V – 4.0A	380V – 3.9A	415V – 4.0A	440V – 3.6A	<p><b>Impeller</b> Vortex impeller made of glass-fiber reinforced PPO</p> <p>Solids Passage 50Hz – <math>\phi</math>46mm 60Hz – <math>\phi</math>46mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> 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><b>Bearings</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 304 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> 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 Faces: Ceramic + Carbon Lower Seal Faces: SiC + SiC</p> <p><b>OIL LIFTER (Patented)</b> 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 &amp; Volume Liquid Paraffin (ISO VG32), 500ml</p> <p><b>Motor Protection Device</b> 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 – 4.1A	220V – 6.6A								
400V – 4.0A	380V – 3.9A								
415V – 4.0A	440V – 3.6A								
<p><b>Optional Accessories</b></p> <p><b>TOK Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> </ul>									
TSURUMI MANUFACTURING CO., LTD.									

NO. A-18338-1

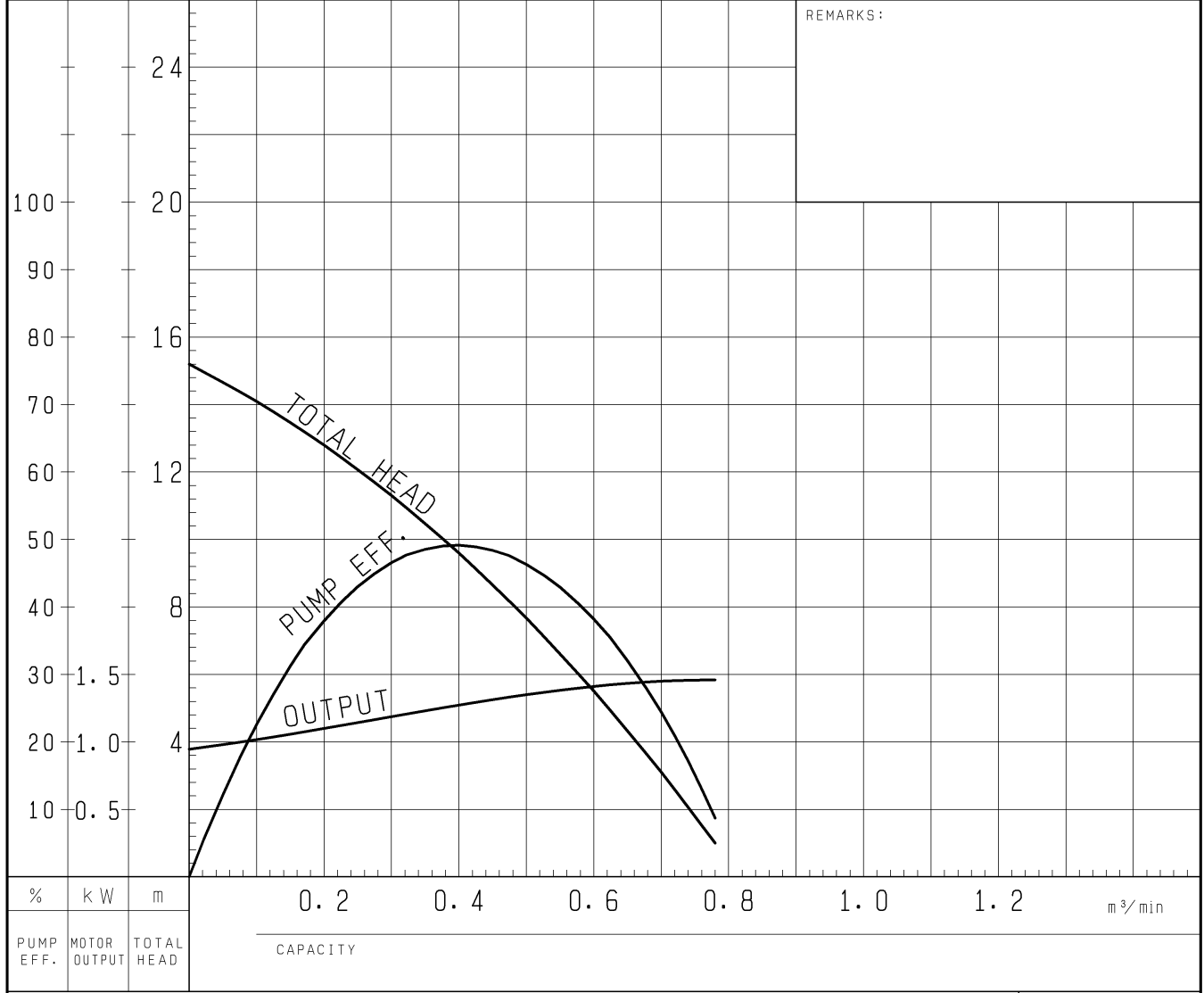
# PUMP PERFORMANCE CURVES

TYPE Sewage Submersible Vortex Pump	MODEL 80PU (A/W) 21.5 -52	FREQUENCY 50 Hz
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CUSTOMER'S NAME \_\_\_\_\_

EQUIPMENT TITLE \_\_\_\_\_ NO. \_\_\_\_\_

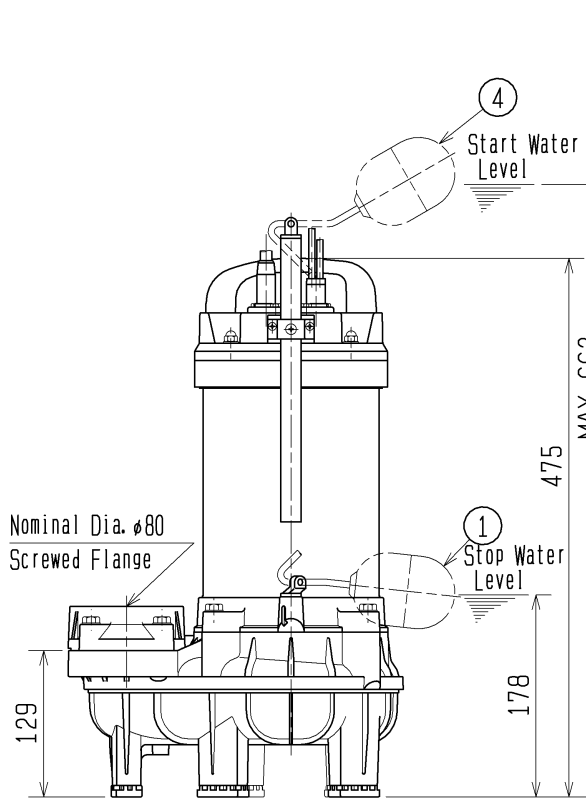
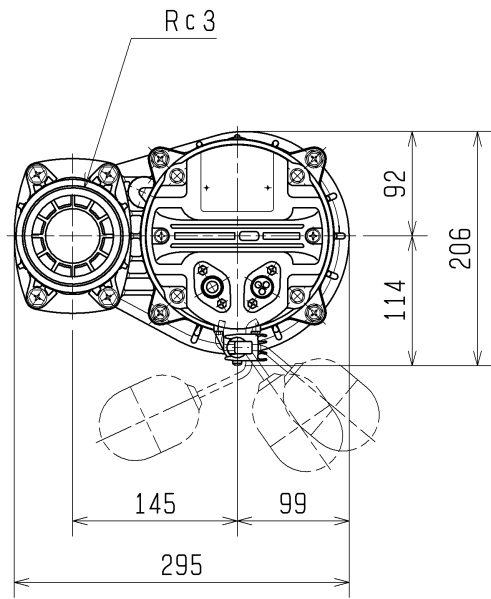
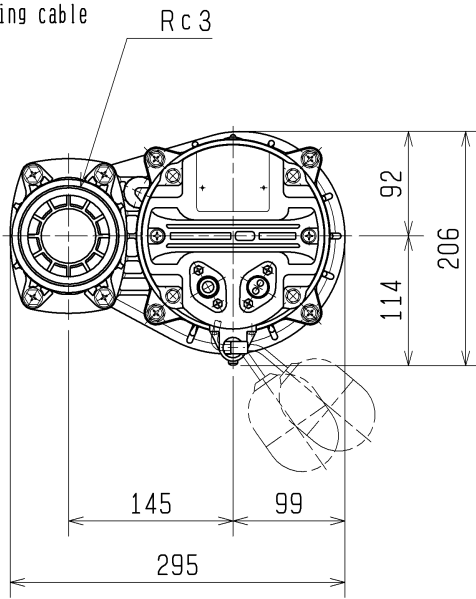
	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	80 mm	mm
TOTAL HEAD	9.5 m	m
CAPACITY	0.4 m <sup>3</sup> /min	m <sup>3</sup> /min
MOTOR OUTPUT	1.5 kW	kW
PHASE x VOLTAGE	3 $\phi$ x V	$\phi$ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / s. s. 3000 min <sup>-1</sup>	P / min <sup>-1</sup>
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	E	



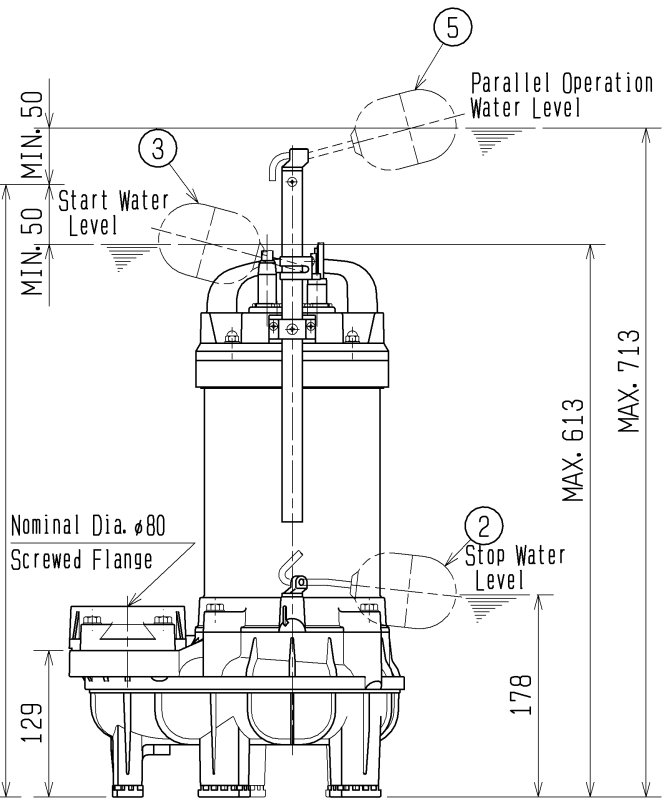
TSURUMI MFG. CO., LTD.

DIMENSION DRAWING		No.	No. A-18342-1
TYPE Sewage Submersible Vortex Pump (Auto-Alternation)		MODEL 80PUW21.5 -52/62	

Approximate Weight (※)  
16.9kg  
※excluding cable



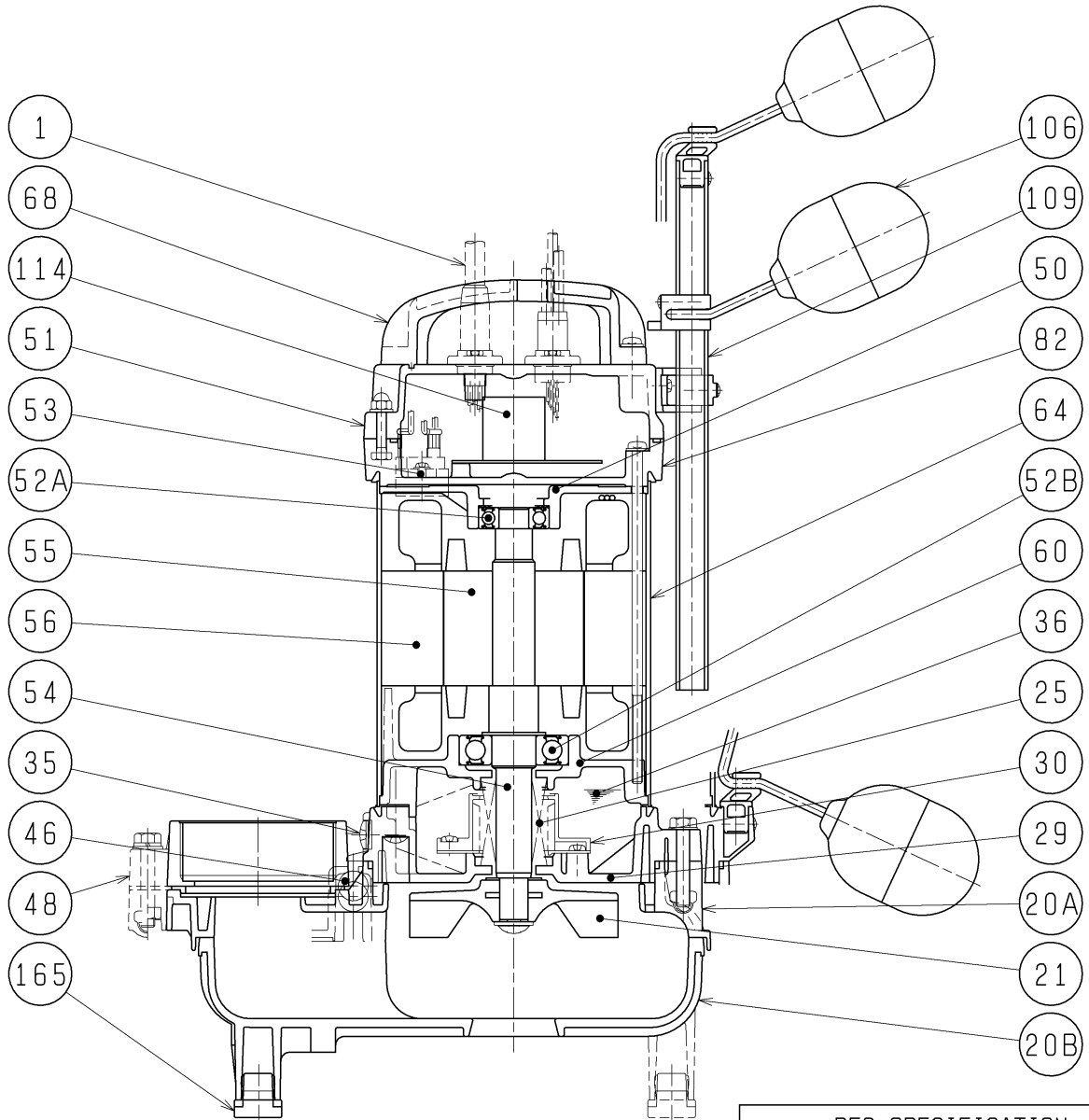
NO. 1 Pump



NO. 2 Pump

No.	Item	Color
①	No. 1 Pump Stop Float	Red
②	No. 2 Pump Stop Float	Red
③	No. 2 Pump Alternate Start Float	Yellow
④	No. 1 Pump Start Float	Yellow
⑤	No. 1 Pump No. 2 Pump Parallel Operation Float	Green

SECTIONAL DRAWING		No.	No. A-18345-1
TYPE Sewage Submersible Vortex Pump (Auto-Alternation)	MODEL	80PUW21.5 -52/62	



REQ. SPECIFICATION	

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

※2 the wetted part

No.	DESCRIPTION	Q'TY	MATERIAL / NOTE	No.	DESCRIPTION	Q'TY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	53	Motor Protector	1	
20A	Upper Pump Casing	※1	Plastic W/GF	54	Shaft	1	Stainless Steel 304(※2)
20B	Lower Pump Casing	1	Plastic W/GF	55	Rotor	1	
21	Impeller	1	Plastic W/GF	56	Stator	1	
25	Mechanical Seal	1	H-20A	60	Bearing Housing	1	Aluminium Alloy Casting
29	Oil Casing	1	Plastic W/GF	64	Motor Frame	1	Stainless Steel 304
30	Oil Lifter	1	Plastic	68	Handle	1	Plastic
35	Oil Plug	1	Stainless Steel 304	82	Head Cover Spacer	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 Pipe	1	PVC
48	Screwed Flange	1	Plastic W/GF	114	Relay Unit	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	6203ZZC3				
52B	Lower Bearing	1	6305ZZC3				