

SPECIFICATIONS	Model	TM-series							
	80TM22.2	2.2kW, 3-phase							
<p>Type of Pump Submersible semi-vortex pump made of titanium and resin suitable for pumping seawater</p> <p>Type of Fluid Seawater</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore 80mm</p> <p>Motor Output 2.2kW</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 border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 5.1A</td> <td>220V – 8.5A</td> </tr> <tr> <td>400V – 5.1A</td> <td>380V – 4.9A</td> </tr> <tr> <td>415V – 5.1A</td> <td>440V – 4.3A</td> </tr> </table> <p>Power Cable Sheath: PVC Standard Length: 6m 380 to 600V supply: 1 × 4 × 1.25mm², O.D. 11.1mm 200 to 240V supply: 1 × 4 × 2.0mm², O.D. 11.8mm</p> <p>Dry Weight (excluding cable) Standard Model: 21kg Automatic Model: 22kg</p>	50Hz	60Hz	380V – 5.1A	220V – 8.5A	400V – 5.1A	380V – 4.9A	415V – 5.1A	440V – 4.3A	<p>Impeller Vortex impeller designed for “high-gap structure”, made of glass-fiber reinforced PA+ABS</p> <p>Solids Passage 50Hz – ϕ20mm 60Hz – ϕ20mm</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>Bearings Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft Titanium</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 Faces: Ceramic + Carbon Lower Seal Faces: SiC + SiC</p> <p>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.</p> <p>Type of Lubricating Oil & Volume Liquid Paraffin (ISO VG32), 680ml</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 – 5.1A	220V – 8.5A								
400V – 5.1A	380V – 4.9A								
415V – 5.1A	440V – 4.3A								
TSURUMI MANUFACTURING CO., LTD.									

NO. A-19470-1

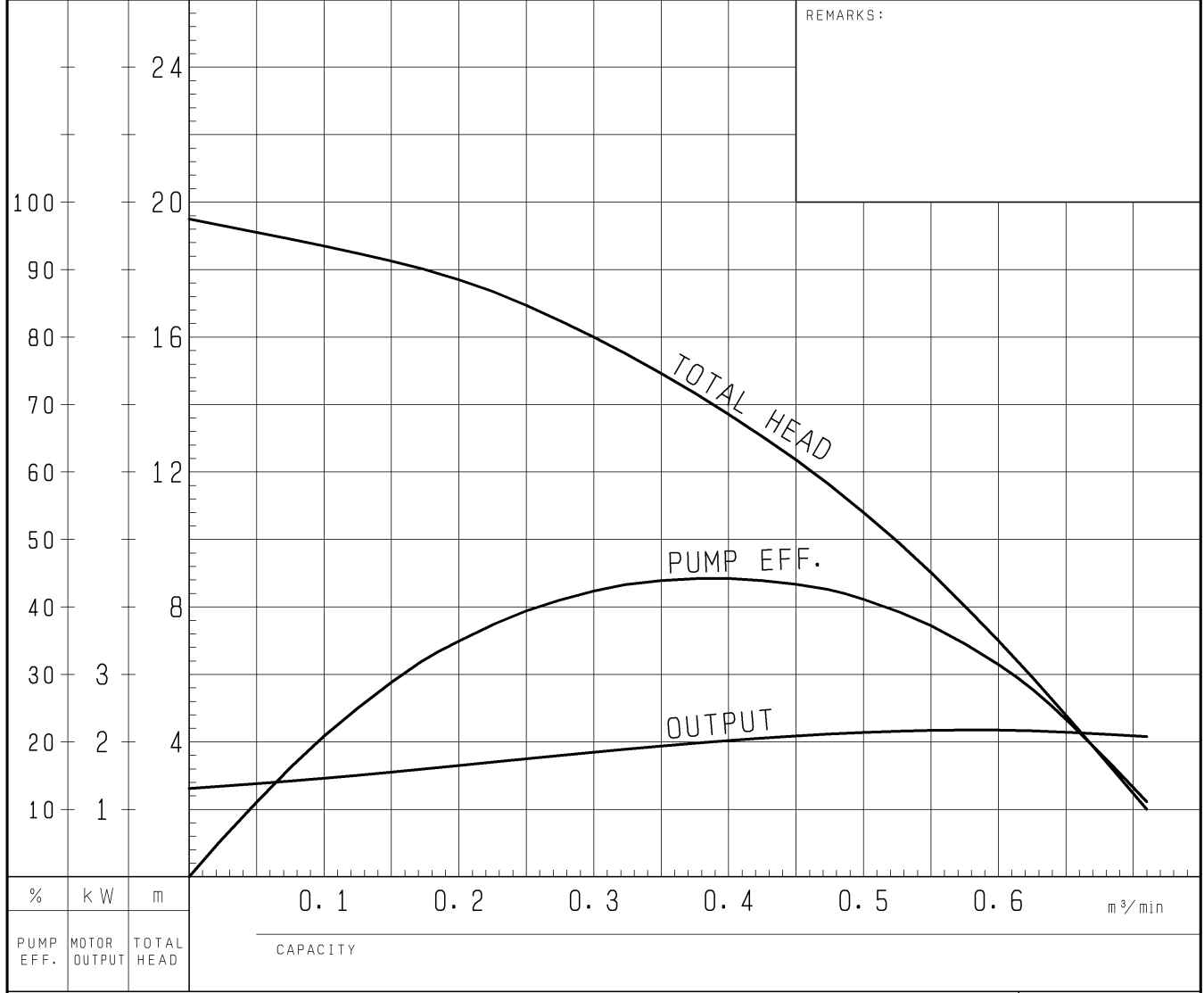
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 80TM22.2 -51 80TMA22.2 -51	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	80 mm	mm
TOTAL HEAD	16.0 m	m
CAPACITY	0.3 m ³ /min	m ³ /min
MOTOR OUTPUT	2.2 kW	kW
PHASE x VOLTAGE	3 ϕ x V	ϕ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / s. s. 3000 min ⁻¹	P / min ⁻¹
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	E	

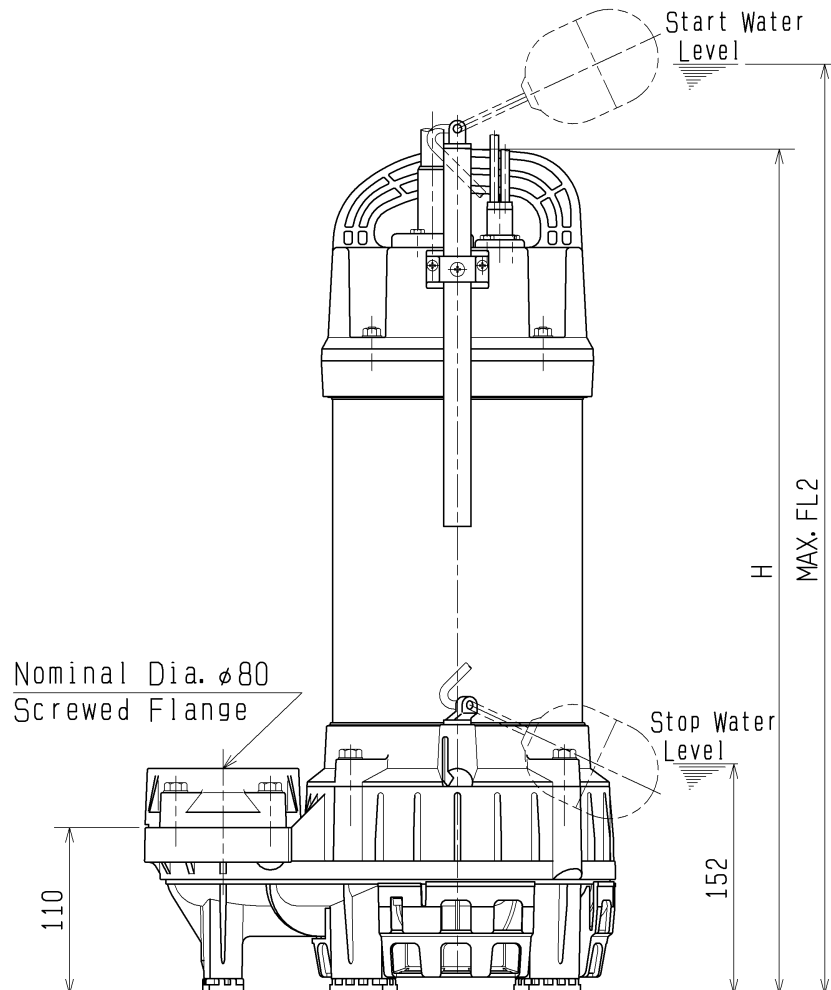
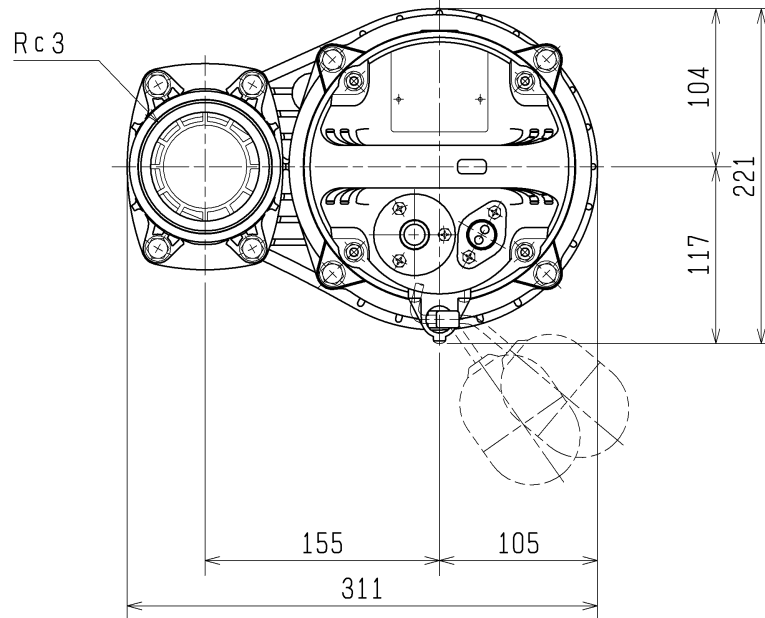


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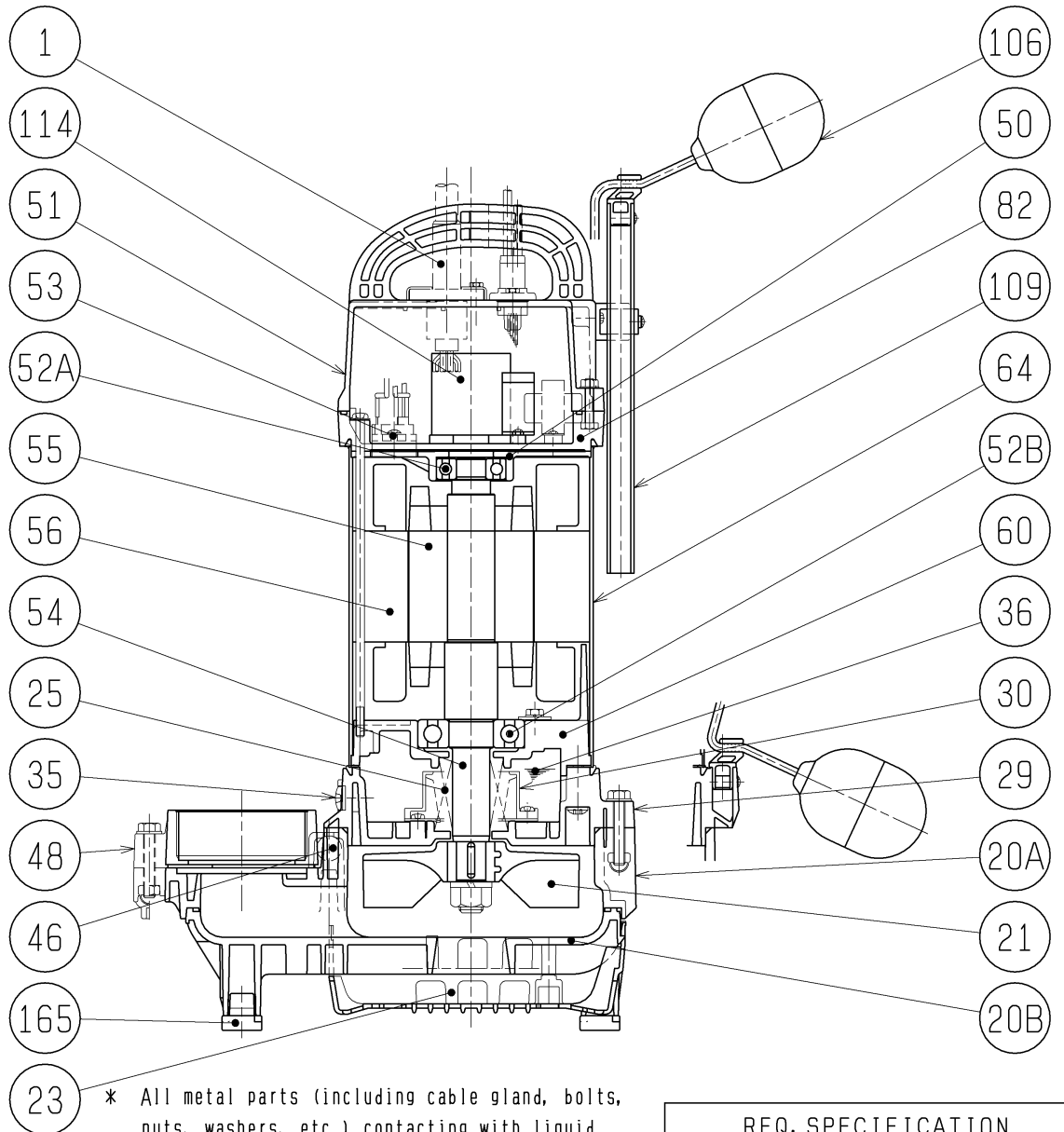
DIMENSION DRAWING		No.	No.	A-19481-1
TYPE	Sea Water Submersible Titanium Seawater Pump (Automatic)	MODEL	80TMA22.2 -51/61 80TMA23.7 -51/61	

MODEL	FL2	H	Approximate Weight (kg)
80TMA22.2-51/61	767	559	22kg
80TMA23.7-51/61	802	594	27kg

※excluding cable



SECTIONAL DRAWING		No.	No.	A-19489-1
TYPE	Sea Water Submersible Titanium Seawater Pump (Automatic)	MODEL	80TMA22.2 -51/61 80TMA23.7 -51/61	



23 * All metal parts (including cable gland, bolts, nuts, washers, etc.) contacting with liquid are made of TITANIUM.

REQ. SPECIFICATION

	2.2kW	3.7kW	※1 Upper and lower blocks form a one-piece casing.
※3	H-25A	H-25AT	※2 the wetted part

No.	DESCRIPTION	Q'TY	MATERIAL / NOTE	No.	DESCRIPTION	Q'TY	MATERIAL / NOTE
1	Cabtyre Cable	1	PVC Sheath	52B	Lower Bearing	1	6306ZC3
20A	Upper Pump Casing	※1 1	Plastic W/GF	53	Motor Protector	1	
20B	Lower Pump Casing	1	Plastic W/GF	54	Shaft	1	Titanium(※2)
21	Impeller	1	Plastic W/GF	55	Rotor	1	
23	Strainer	1	Plastic	56	Stator	1	
25	Mechanical Seal	1	※3	60	Bearing Housing	1	Aluminium Alloy Casting
29	Oil Casing	1	Plastic W/GF	64	Motor Frame	1	Titanium
30	Oil Lifter	1	Plastic	82	Head Cover Spacer	1	Plastic W/GF
35	Oil Plug	1	Titanium	106	Float Set	2	Plastic
36	Lubricant		Liquid Paraffin (ISO VG32)	109	Float Support Pipe	1	PVC
46	Air Release Valve	1	Glass Ball	114	Relay Unint	1	
48	Screwed Flange	1	Plastic W/GF	165	Rubber Foot	5	Nitrile Butadien Rubber
50	Motor Bracket	1	Aluminium Alloy Casting				
51	Head Cover	1	Plastic W/GF				
52A	Upper Bearing	1	6204ZC3				