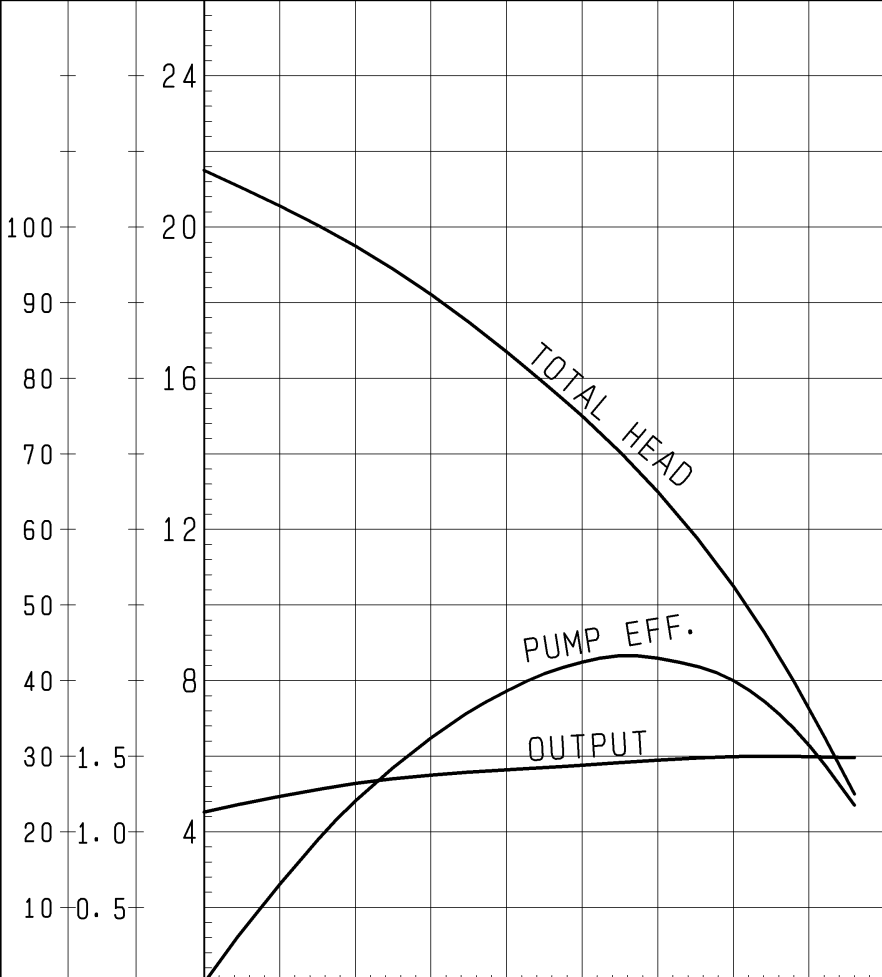
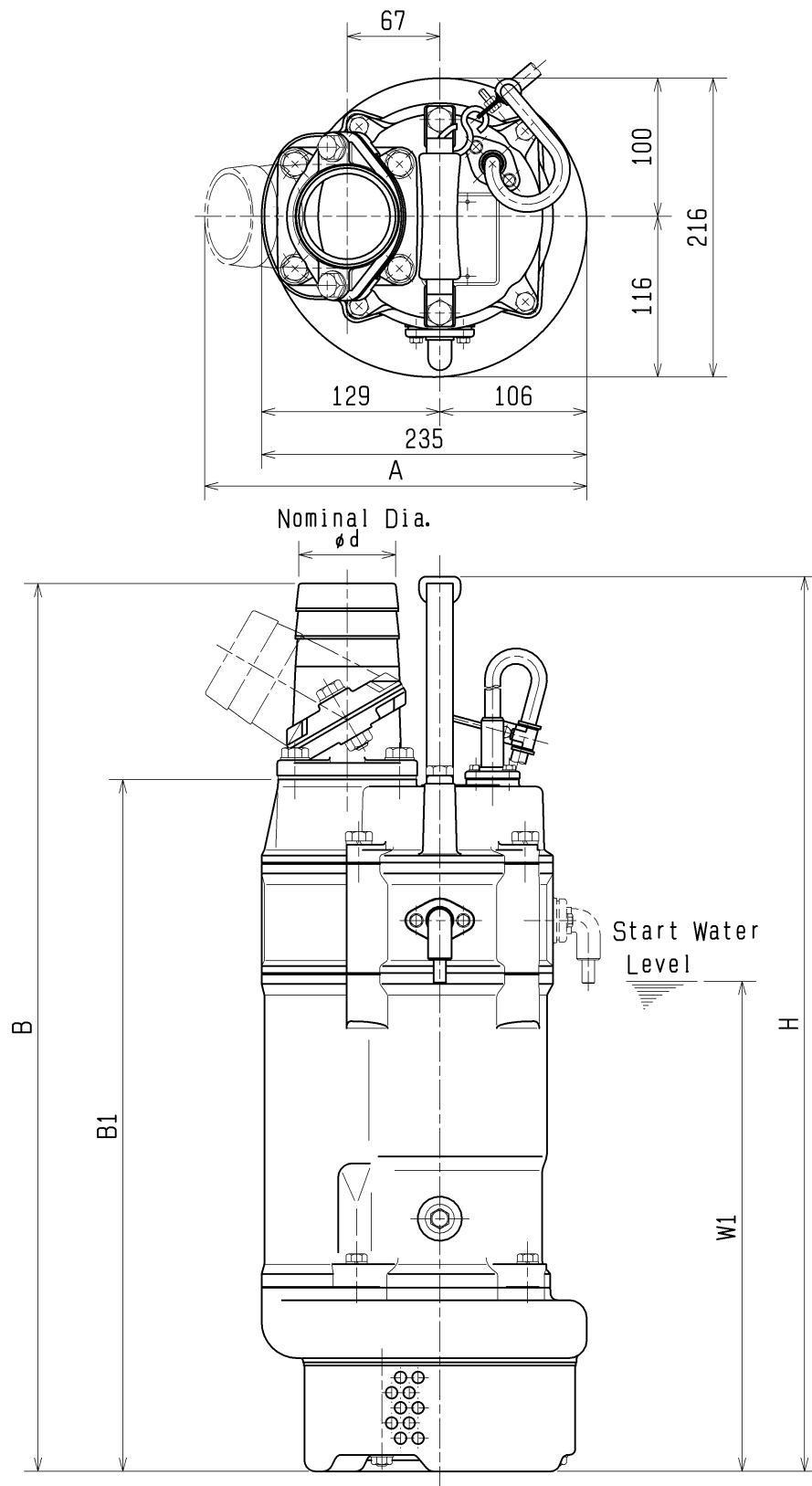


SPECIFICATIONS	Model	KTZE21.5	KTZE-series								
			1.5kW, 3-phase								
<p><b>Type of Pump</b> Submersible automatic high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p><b>Type of Fluid</b> Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 50mm, Hose Coupling</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: F 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><tr><td>50Hz</td><td>60Hz</td></tr><tr><td>380V – 3.5A</td><td>220V – 6.0A</td></tr><tr><td>400V – 3.5A</td><td>380V – 3.4A</td></tr><tr><td>415V – 3.5A</td><td>440V – 3.2A</td></tr></table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 8m 200 to 600V supply: 1 x 4 x 1.25mm<sup>2</sup>, O.D. 11.1mm</p> <p><b>Dry Weight</b> (excluding cable) 39kg</p>		50Hz	60Hz	380V – 3.5A	220V – 6.0A	400V – 3.5A	380V – 3.4A	415V – 3.5A	440V – 3.2A	<p><b>Impeller</b> Semi-open Impeller made of high-chromium cast iron</p> <p>Solids Passage 50Hz – ϕ8.5mm 60Hz – ϕ8.5mm</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>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 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 Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</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 Turbine Oil (ISO VG32), 740ml</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 – 3.5A	220V – 6.0A										
400V – 3.5A	380V – 3.4A										
415V – 3.5A	440V – 3.2A										
<p><b>Optional Accessory</b></p> <p><b>Extension Electrode</b></p>											
TSURUMI MANUFACTURING CO., LTD.											

		NO.		A-21031-1																													
PUMP PERFORMANCE CURVES																																	
TYPE		SUBMERSIBLE GENERAL DEWATERING PUMP		MODEL																													
				KTZE21.5 -51																													
				FREQUENCY																													
				50 Hz																													
CUSTOMER'S NAME																																	
EQUIPMENT TITLE																																	
NO.																																	
		STANDARD SPECIFICATIONS		REQUIRED SPECIFICATIONS																													
DISCHARGE BORE		50 mm		mm																													
TOTAL HEAD		MAX. 21.5 m		m																													
CAPACITY		MAX. 0.43 m <sup>3</sup> /min		m <sup>3</sup> /min																													
MOTOR OUTPUT		1.5 kW		kW																													
PHASE × VOLTAGE		3 φ × V		φ × 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		F																															
				REMARKS:																													
 <p>The graph displays three performance curves for the pump. The x-axis represents Capacity in m<sup>3</sup>/min, ranging from 0 to 0.6. The left y-axis has two scales: Total Head in meters (m) from 0 to 24, and Motor Output in kW from 0 to 100. The right y-axis represents Pump Efficiency in percent (%), ranging from 0 to 100. The 'TOTAL HEAD' curve starts at approximately 21.5 m at 0 capacity and decreases to about 4 m at 0.43 m<sup>3</sup>/min. The 'PUMP EFF.' curve starts at 0, peaks at approximately 85% efficiency at a capacity of 0.3 m<sup>3</sup>/min, and then declines. The 'OUTPUT' curve starts at approximately 1.5 kW at 0 capacity and increases to about 3 kW at 0.43 m<sup>3</sup>/min.</p> <table border="1"><thead><tr><th>CAPACITY (m<sup>3</sup>/min)</th><th>TOTAL HEAD (m)</th><th>PUMP EFF. (%)</th><th>OUTPUT (kW)</th></tr></thead><tbody><tr><td>0.0</td><td>21.5</td><td>0</td><td>1.5</td></tr><tr><td>0.1</td><td>19.5</td><td>45</td><td>2.0</td></tr><tr><td>0.2</td><td>17.5</td><td>75</td><td>2.5</td></tr><tr><td>0.3</td><td>15.5</td><td>85</td><td>2.8</td></tr><tr><td>0.4</td><td>11.5</td><td>75</td><td>3.0</td></tr><tr><td>0.43</td><td>4.0</td><td>65</td><td>3.0</td></tr></tbody></table>				CAPACITY (m <sup>3</sup> /min)	TOTAL HEAD (m)	PUMP EFF. (%)	OUTPUT (kW)	0.0	21.5	0	1.5	0.1	19.5	45	2.0	0.2	17.5	75	2.5	0.3	15.5	85	2.8	0.4	11.5	75	3.0	0.43	4.0	65	3.0		
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TSURUMI MFG. CO., LTD.																																	

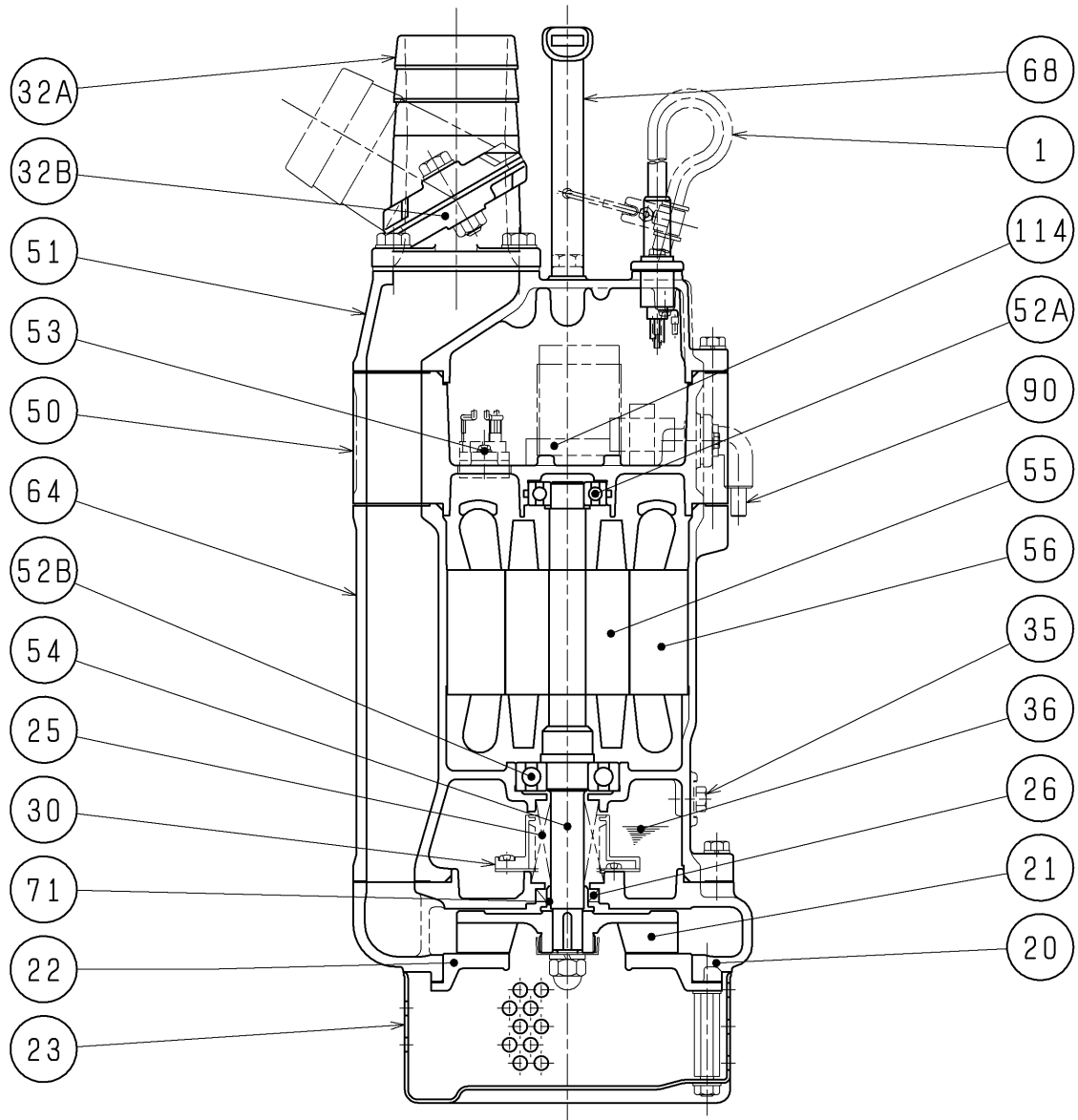
DIMENSION DRAWING			No.		No.	A-21045-1
TYPE	SUBMERSIBLE GENERAL DEWATERING PUMP		MODEL	KTZE21.5 -51/61, KTZE22.2 -51/61		
				KTZE31.5 -51/61, KTZE32.2 -51/61		



\*excluding cable

MODEL	d	A	B	B1	H	W1	Approximate Weight (※)
KTZE21.5-51/61	50	270	623	481	628	345	39kg
KTZE31.5-51/61	80	276	623	481	628	345	38kg
KTZE22.2-51/61	50	270	643	501	648	355	41kg
KTZE32.2-51/61	80	276	643	501	648	355	40kg

SECTIONAL DRAWING		No.	No.	A-21047-2
TYPE	SUBMERSIBLE GENERAL DEWATERING PUMP	MODEL	KTZE21.5 -51/61, KTZE22.2 -51/61 KTZE31.5 -51/61, KTZE32.2 -51/61	



# REQ. SPECIFICATION

※ the wetted part

No.	DESCRIPTION	Q'TY	MATERIAL / NOTE	No.	DESCRIPTION	Q'TY	MATERIAL / NOTE
1	Cabtyre Cable	1	PVC Sheath	52A	Upper Bearing	1	6204ZC3
20	Pump Casing	1	Gray Iron Casting	52B	Lower Bearing	1	6305ZC3
21	Impeller	1	Chromium Iron Casting	53	Motor Protector	1	
22	Suction Cover	1	Ductile Iron Casting	54	Shaft	1	Stainless Steel 420J2(※)
23	Strainer Stand	1	Steel Sheet	55	Rotor	1	
25	Mechanical Seal	1	H-20T	56	Stator	1	
26	Oil Seal	1	TC25388	64	Motor Frame	1	Gray Iron Casting
30	Oil Lifter	1	Plastic	68	Handle	1	Steel Sheet & Nitrile Butadiene Rubber
32A	Hose Coupling	1	Aluminium Die Casting	71	Shaft Sleeve	1	Stainless Steel 304
32B	Hose Coupling Attachment	1	Aluminium Die Casting	90	Level Sensor(Electrode)	1	Stainless Steel 304
35	Oil Plug	1	Stainless Steel 304	114	Relay Unit	1	
36	Lubricant		Turbine Oil (ISO VG32)				
50	Motor Bracket	1	Gray Iron Casting				
51	Head Cover	1	Gray Iron Casting				