

SPECIFICATIONS	Model	KTVE22.2	
		KTVE-series 2.2kW, 3-phase	

<p><b>Type of Pump</b> Submersible automatic 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 (80mm discharge bore available on special request)</p> <p><b>Motor Output</b> 2.2kW</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 – 4.4A</td> <td>220V – 7.6A</td> </tr> <tr> <td>400V – 4.3A</td> <td>380V – 4.3A</td> </tr> <tr> <td>415V – 4.2A</td> <td>440V – 3.8A</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) 24.5kg</p>	50Hz	60Hz	380V – 4.4A	220V – 7.6A	400V – 4.3A	380V – 4.3A	415V – 4.2A	440V – 3.8A	<p><b>Impeller</b> Vortex impeller deigned for “high-gap structure”, made of ductile cast iron</p> <p>Solids Passage 50Hz – <math>\phi</math>8.5mm 60Hz – <math>\phi</math>8.5mm</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> 403 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 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), 270ml</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 – 4.4A	220V – 7.6A								
400V – 4.3A	380V – 4.3A								
415V – 4.2A	440V – 3.8A								

**Optional Accessory**

**Extension Electrode**

NO. A-05394-1

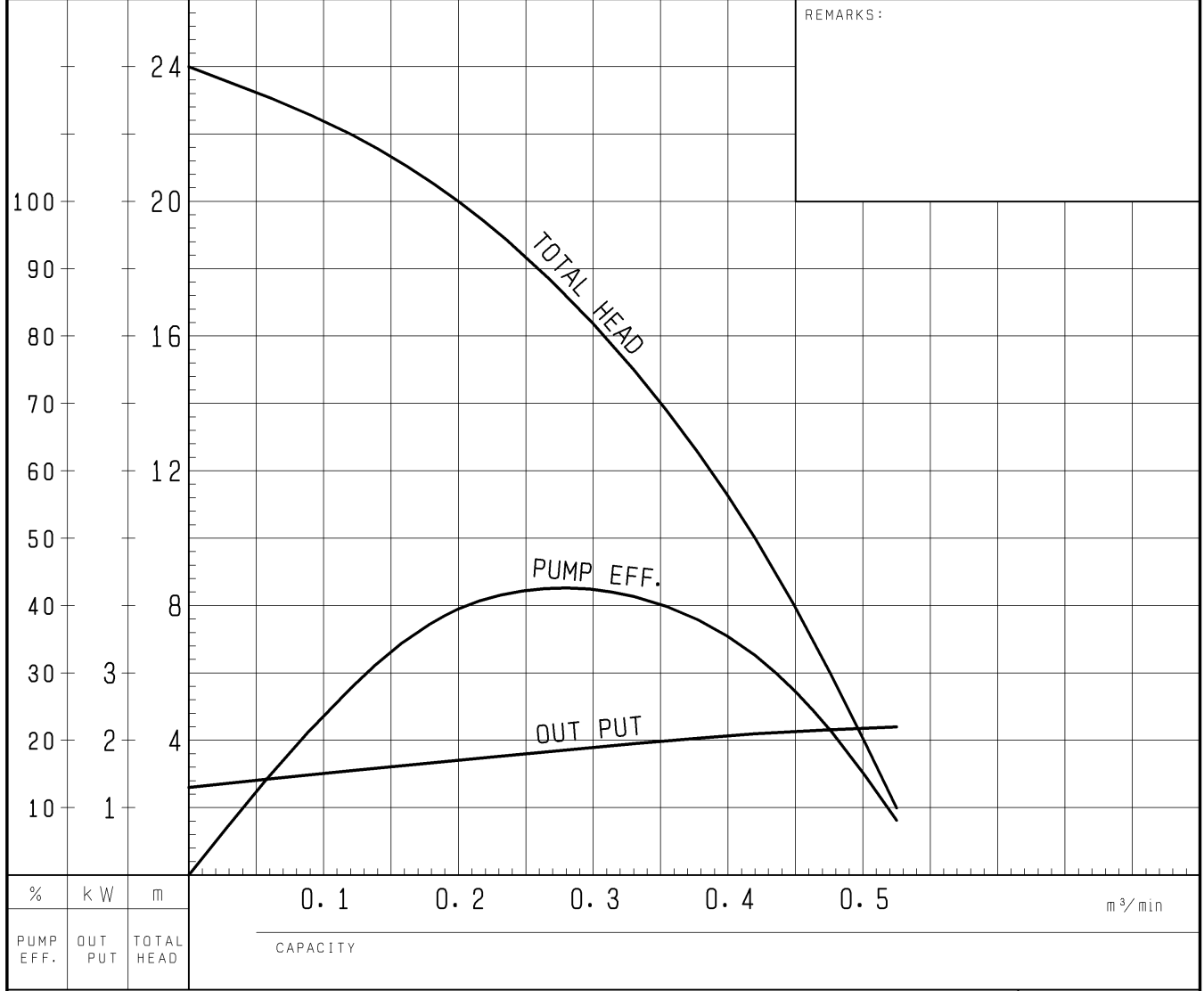
# PUMP PERFORMANCE CURVES

TYPE SUBMERSIBLE GENERAL DEWATERING VORTEX PUMP	MODEL KTVE22.2 -51	FREQUENCY 50 Hz
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CUSTOMER'S NAME \_\_\_\_\_

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

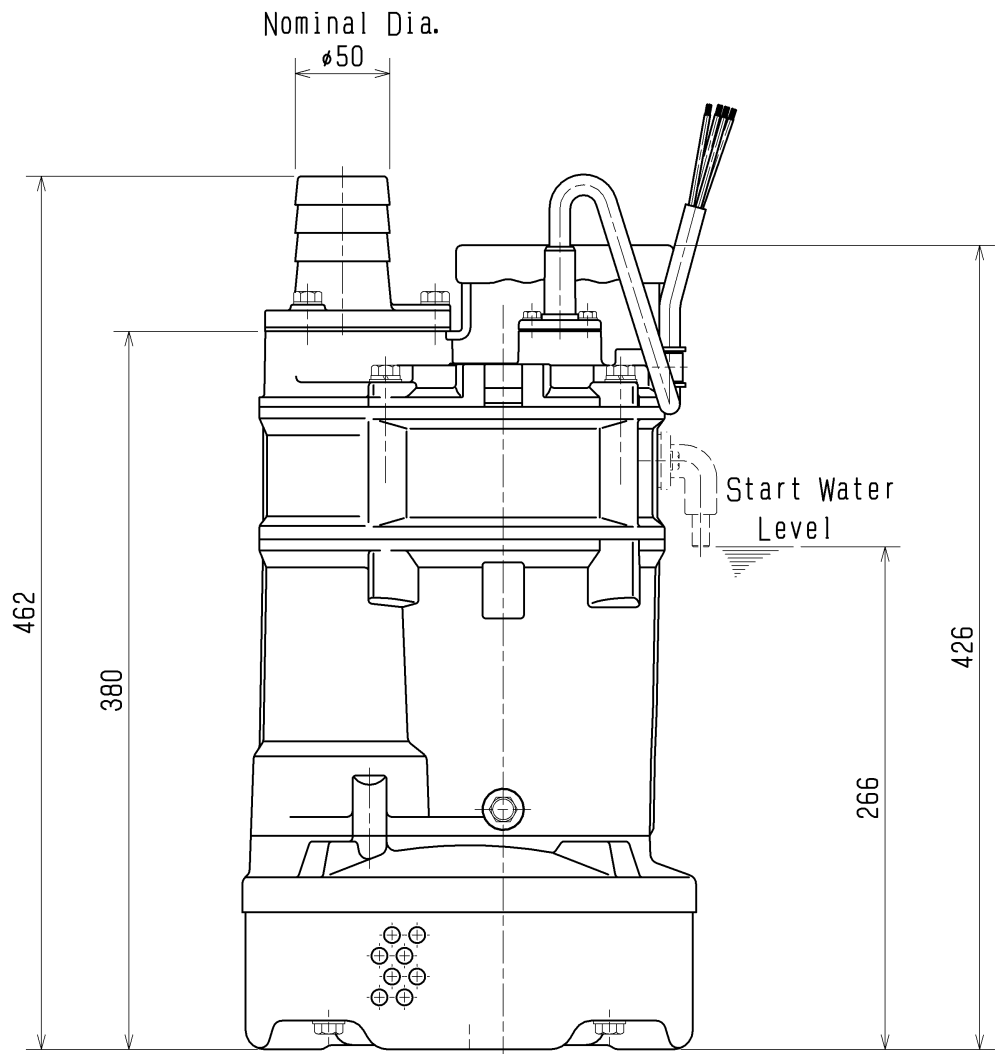
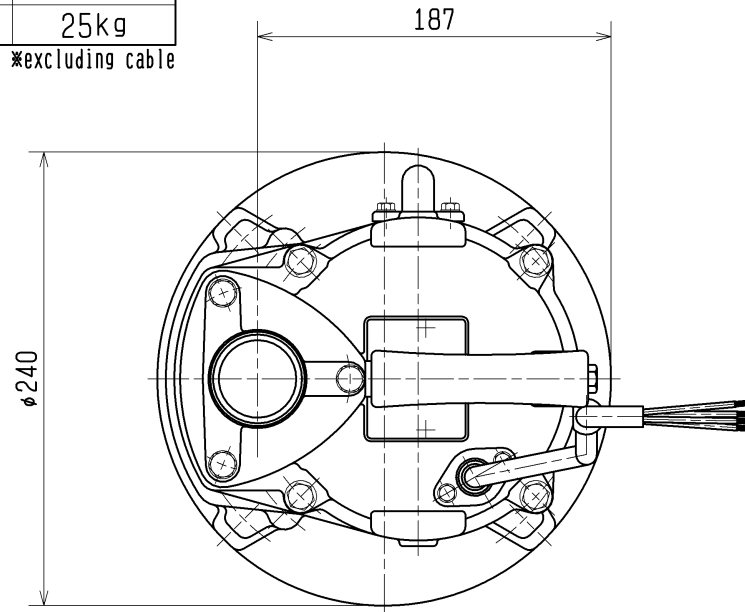
	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	20 m	m
CAPACITY	0.2 m <sup>3</sup> /min	m <sup>3</sup> /min
MOTOR OUTPUT	2.2 kW	kW
PHASE x VOLTAGE	3 $\phi$ x V	$\phi$ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / s. s. 3000 min <sup>-1</sup>	P / min <sup>-1</sup>
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	E	



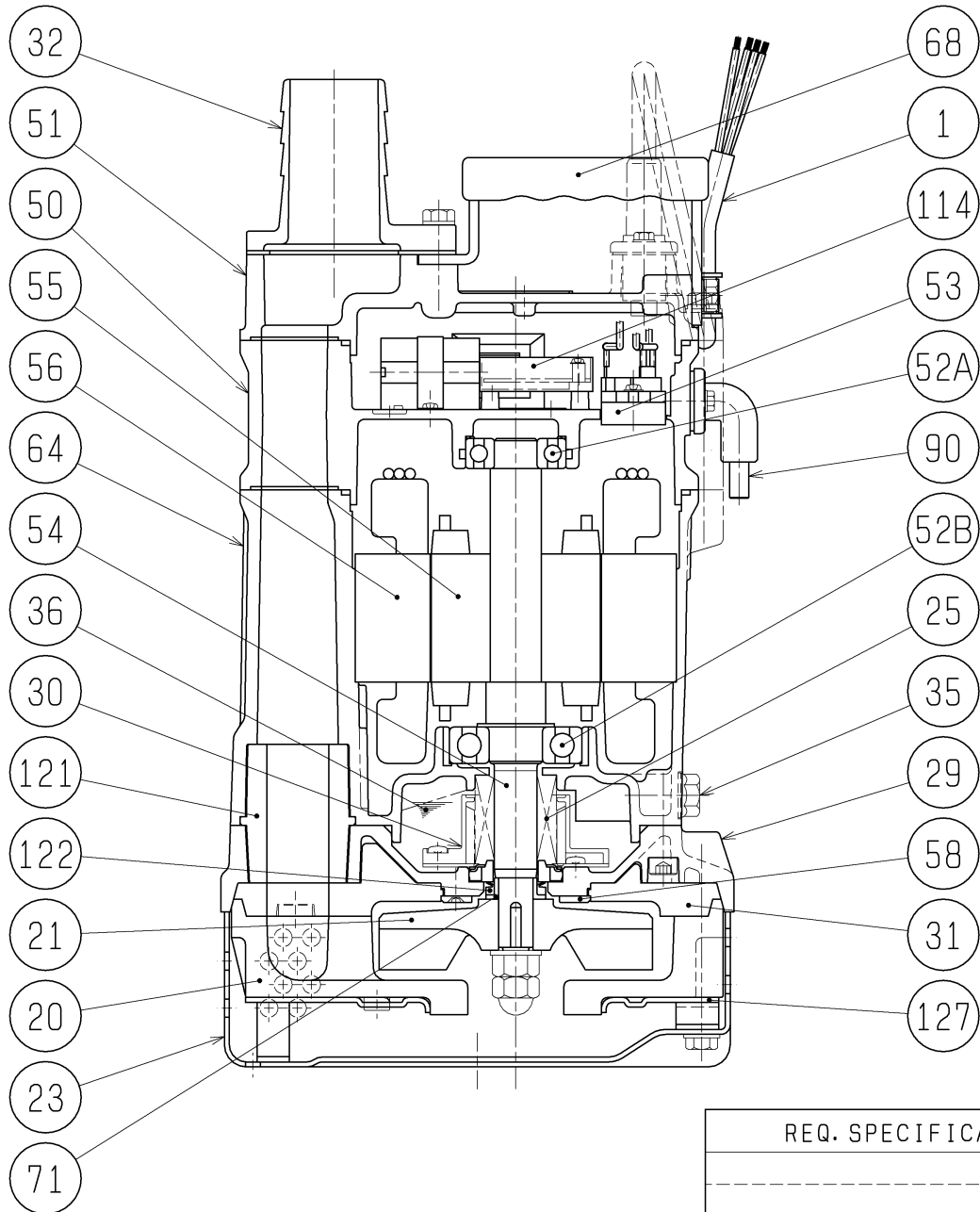
TSURUMI MFG. CO., LTD.

DIMENSION DRAWING		No.	No.	A-05399-3
TYPE	SUBMERSIBLE GENERAL DEWATERING VORTEX PUMP	MODEL	KTVE21.5 -51/61 KTVE22.2 -51/61	

MODEL	Approximate Weight (※)
KTVE21.5-51/61	22kg
KTVE22.2-51/61	25kg



SECTIONAL DRAWING		No.	No.	A-05402-6
TYPE	SUBMERSIBLE GENERAL DEWATERING VORTEX PUMP	MODEL	KTVE21.5 -51/61 KTVE22.2 -51/61	



REQ. SPECIFICATION

No.	DESCRIPTION	Q'TY	MATERIAL / NOTE	No.	DESCRIPTION	Q'TY	MATERIAL / NOTE
1	Cabtyre Cable	1	PVC Sheath	53	Motor Protector	1	
20	Pump Casing	1	Butadien Rubber + Natural Rubber	54	Shaft	1	Stainless Steel 403
21	Impeller	1	Ductile Iron Casting	55	Rotor	1	
23	Strainer Stand	1	Steel Sheet	56	Stator	1	
25	Mechanical Seal	1	H-20T	58	Protection Plate	1	Stainless Steel 304
29	Oil Casing	1	Aluminium Die Casting	64	Motor Frame	1	Aluminium Die Casting
30	Oil Lifter	1	Plastic	68	Handle	1	Steel Sheel & Rubber
31	Rear Liner	1	Butadien Rubber + Natural Rubber	71	Shaft Sleeve	1	Stainless Steel 304
32	Hose Coupling	1	Aluminium Die Casting	90	Level Sensor(Electrode)	1	
35	Oil Plug	1	Stainless Steel 304	114	Relay Unit	1	
36	Lubricant		Turbine Oil(ISO VG32)	121	Packing	1	Styrene Butadien Rubber
50	Motor Bracket	1	Aluminium Die Casting	122	V-ring	1	Nitrile Butadien Rubber
51	Head Cover	1	Aluminium Die Casting	127	Fittings	1	Steel Sheet
52A	Upper Bearing	1	6204ZZC3				
52B	Lower Bearing	1	6305ZZC3				