

NO. A-10195-1

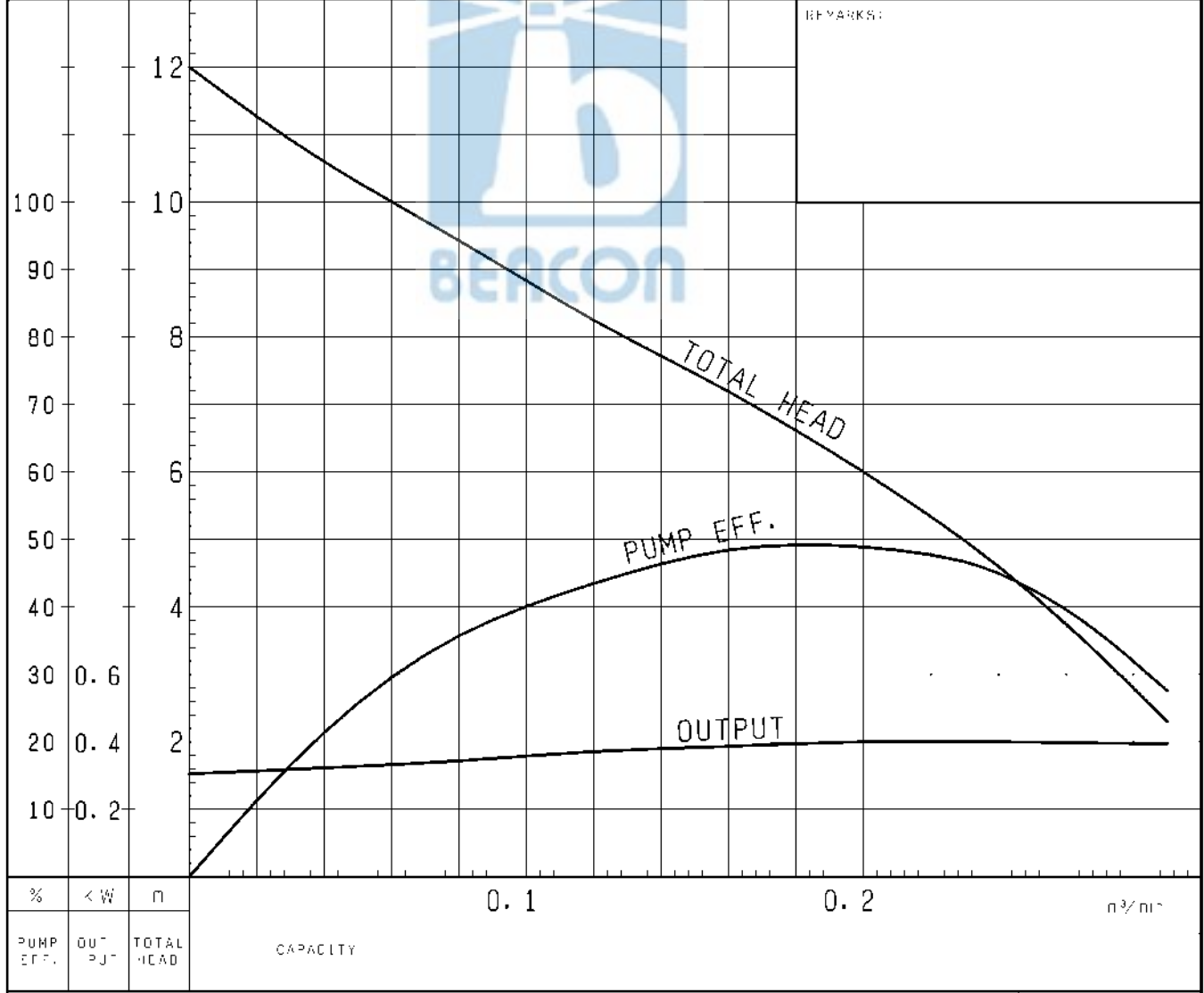
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM2.4 -52 50TMA2.4 -52	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	9.3 m	m
CAPACITY	0.08 m ³ /min	m ³ /min
MOTOR OUTPUT	0.4 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	

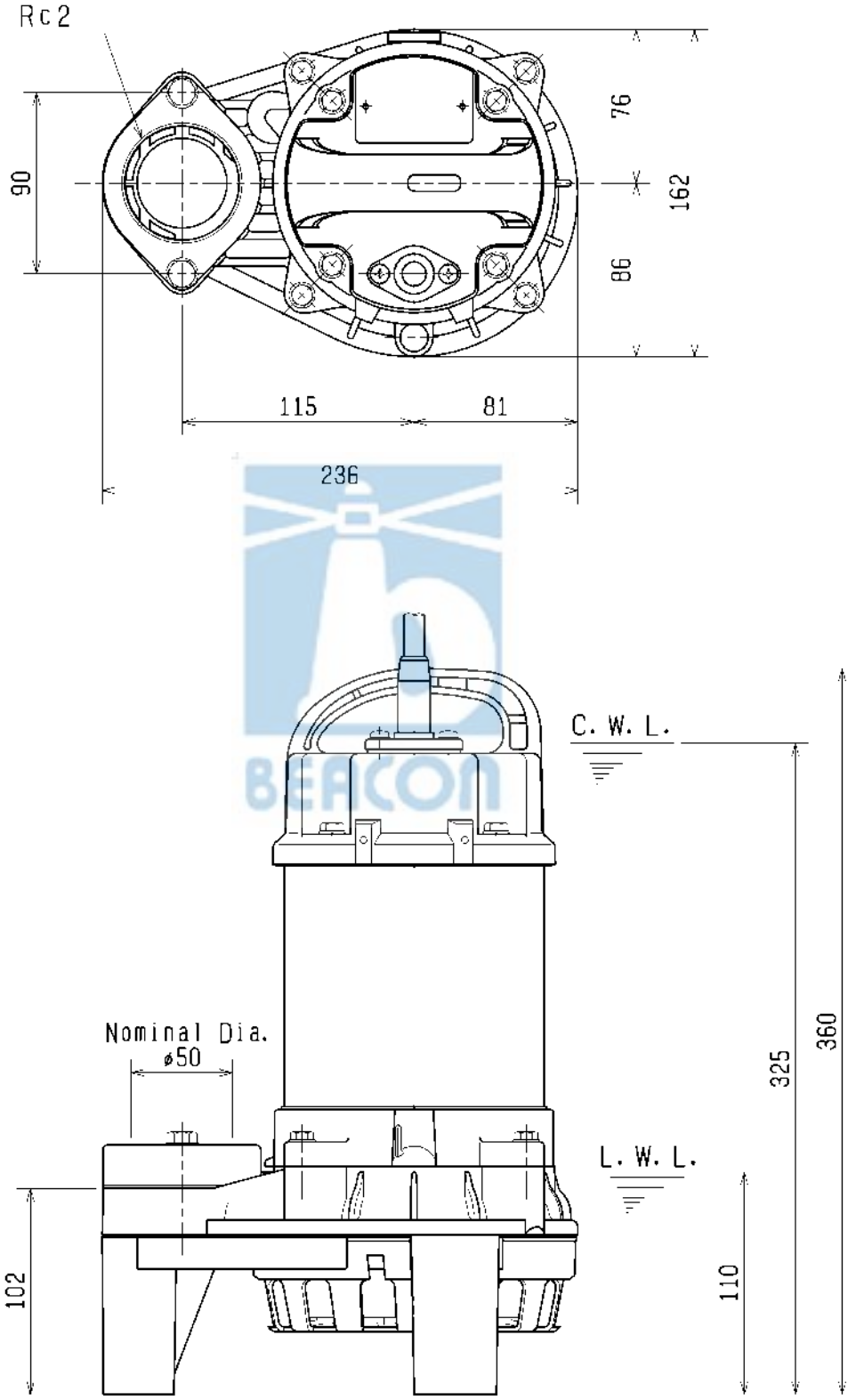


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DIMENSION DRAWING		No.	No. A-10208-2
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	50TM2.4 -52/62

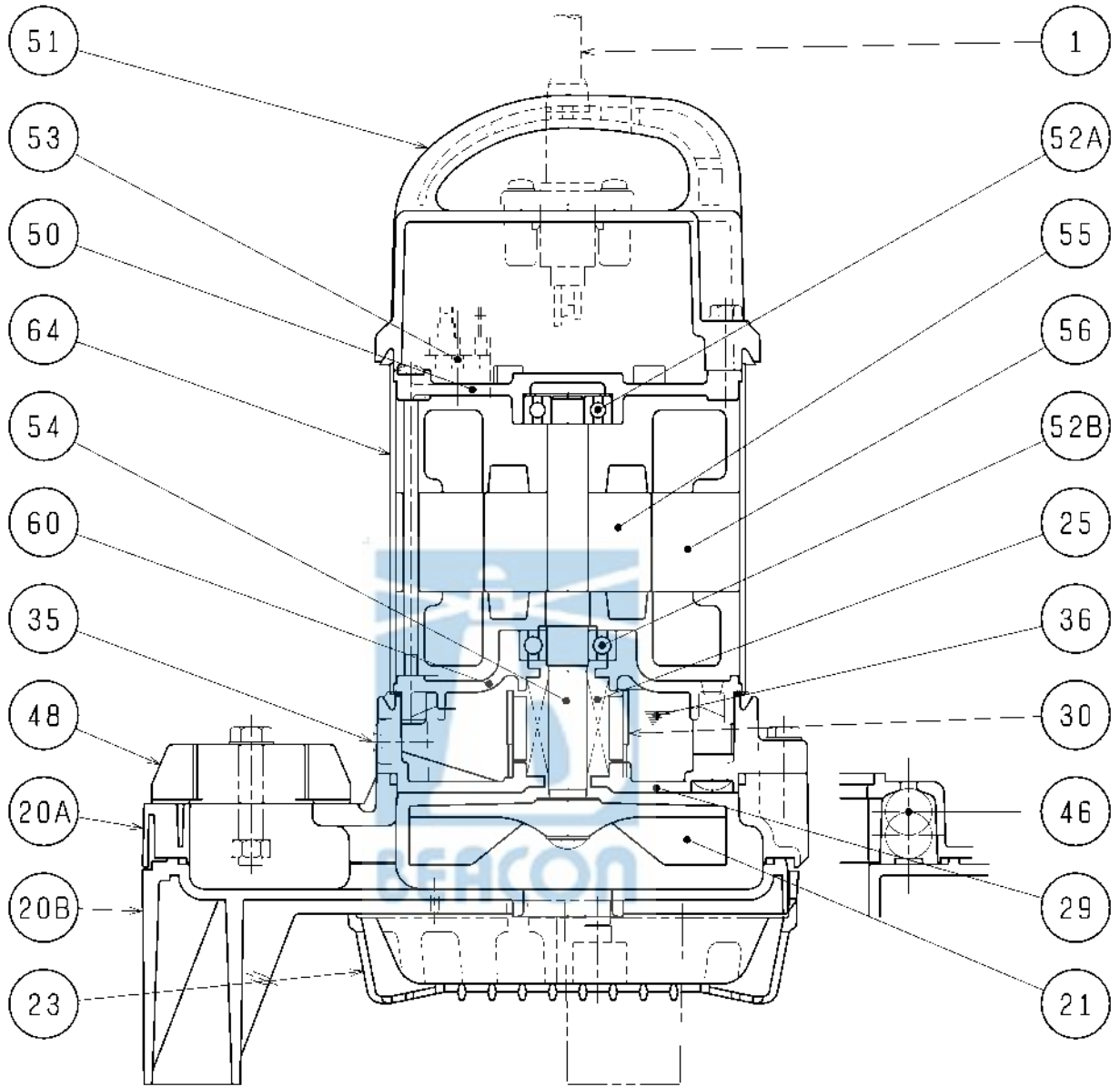
Approximate Weight (※)
6.6kg

※excluding cable



C. W. L. : Continuous running Water Level
L. W. L. : Lowest running Water Level

SECTIONAL DRAWING		No.	No. A-10216-4
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	40TM2.25 -52/62, 50TM2.4 -52/62 50TM2.75 -52/62



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

* Upper and lower blocks form a one-piece casing.

REQ. SPECIFICATION		

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	50	Motor Bracket	1	Aluminium Die Casting
20A	Upper Pump Casing *	1	Plastic W/GF	51	Head Cover	1	Plastic W/GF
20B	Lower Pump Casing	1	Plastic	52A	Upper Bearing	1	6201ZZC3
21	Impeller	1	Plastic W/GF	52B	Lower Bearing	1	6302ZZC3
23	Strainer	1	Plastic	53	Motor Protector	1	
25	Mechanical Seal	1	W-14HC	54	Shaft	1	Titanium
29	Oil Casing	1	Plastic W/GF	55	Rotor	1	
30	Oil Lifter	1	Plastic	56	Stator	1	
35	Oil Plug	1	Titanium	60	Bearing Housing	1	Aluminium Die Casting
36	Lubricant		Liquid Paraffin (ISO VG32)	64	Motor Frame	1	Titanium
46	Air Release Valve	1	Glass Ball				
48	Screwed Flange	1	Plastic W/GF				

NO. A-10195-1

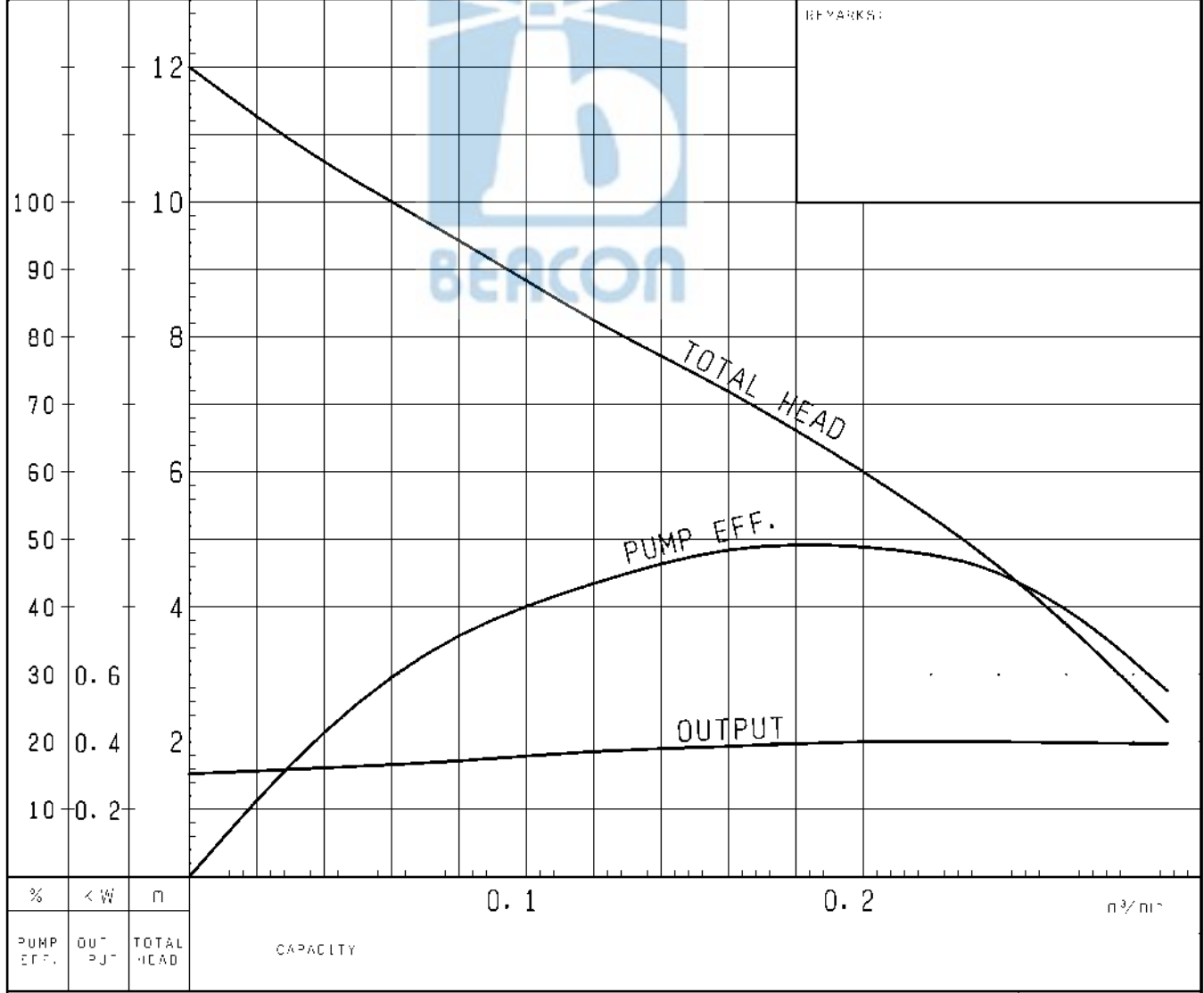
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM2.4 -52 50TMA2.4 -52	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	9.3 m	m
CAPACITY	0.08 m ³ /min	m ³ /min
MOTOR OUTPUT	0.4 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	

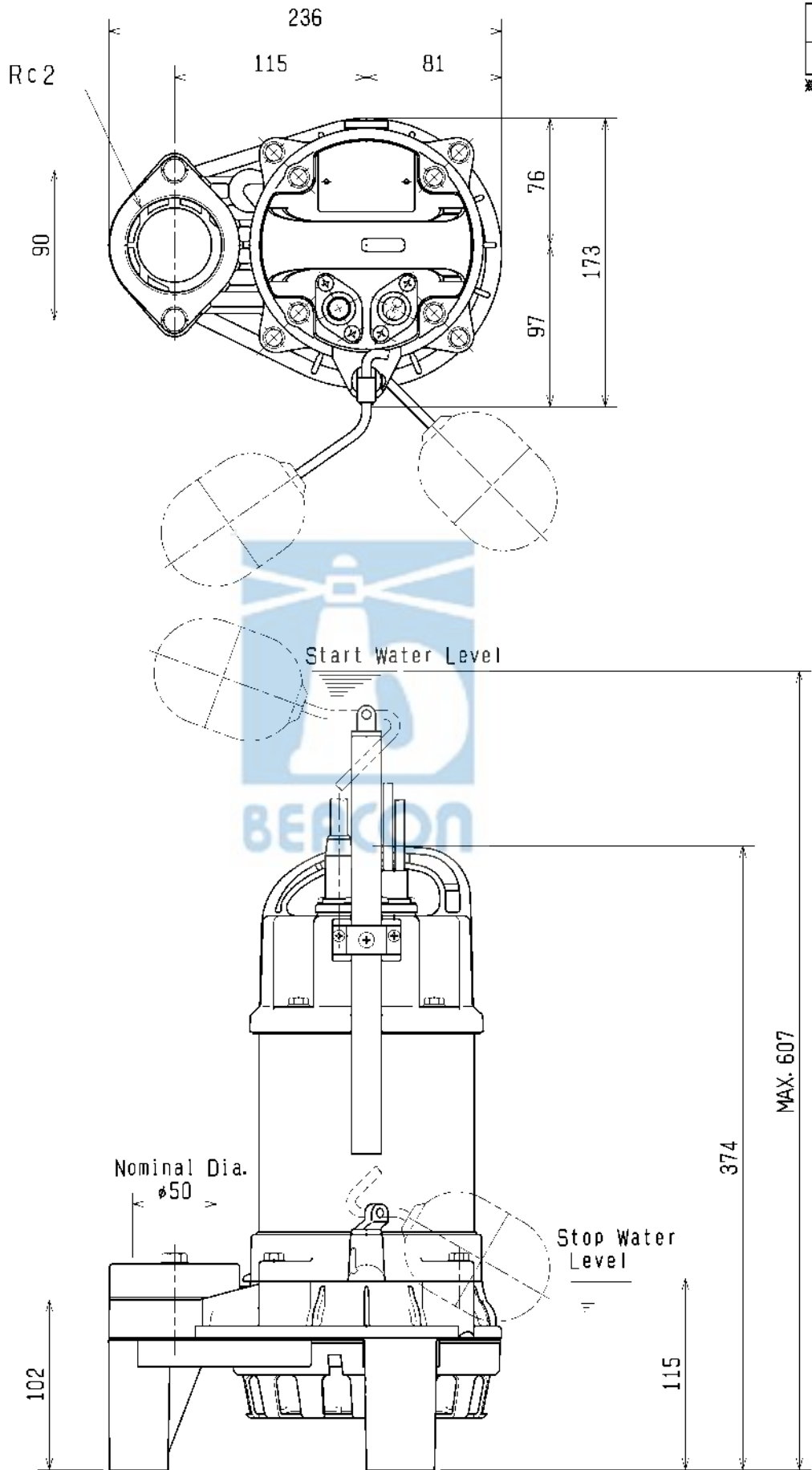


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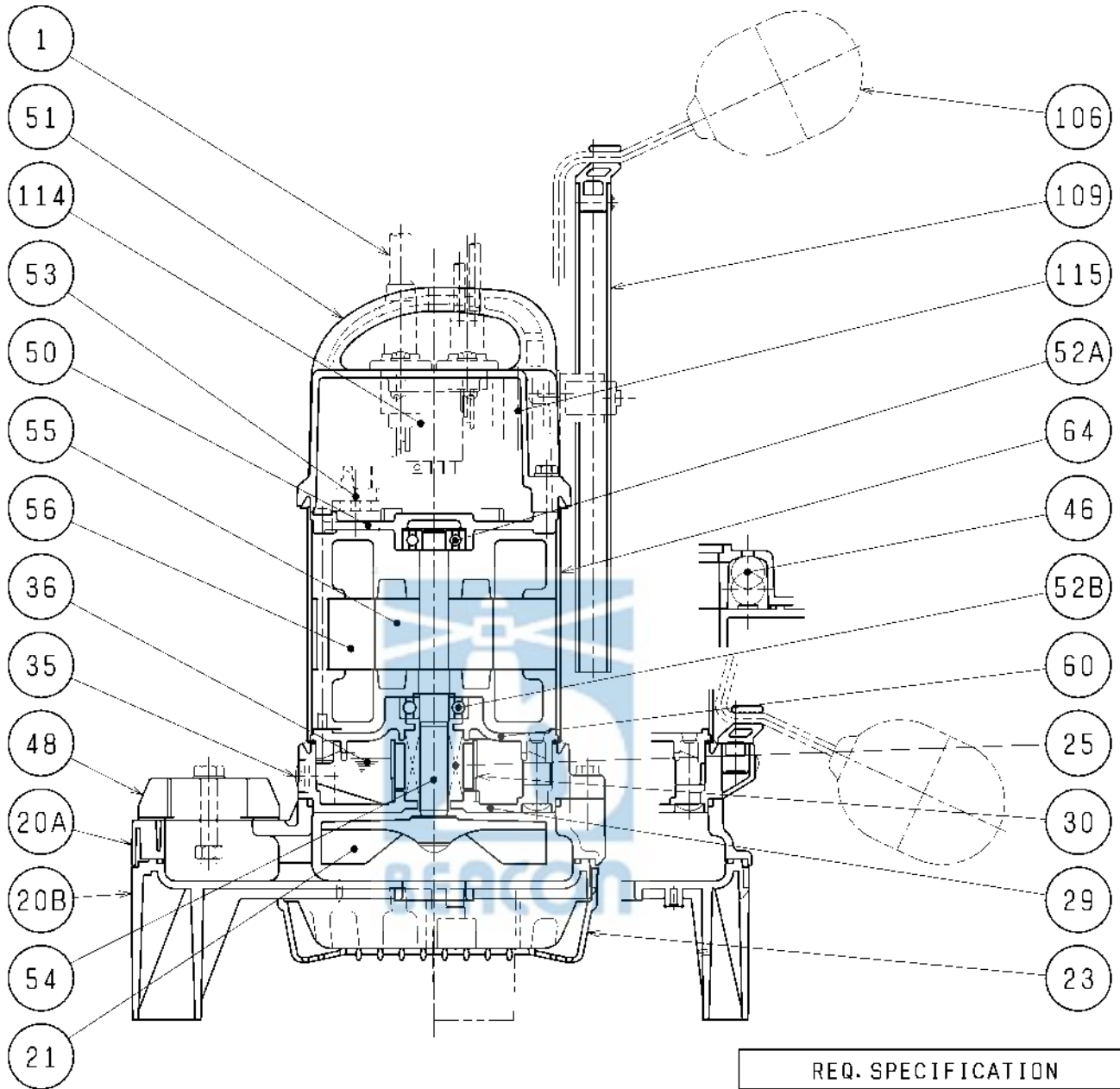
DIMENSION DRAWING		No.	No. A-10209-2
TYPE	Sea Water Submersible Titanium Seawater Pump (Automatic)	MODEL	50TMA2.4 -52/62

Approximate Weight (※)
7.1kg

※excluding cable



SECTIONAL DRAWING		No.	No. A-10217-4
TYPE Sea Water Submersible Titanium Seawater Pump (Automatic)		MODEL 40TMA2.25 -52/62, 50TMA2.4 -52/62 50TMA2.75 -52/62	



REQ. SPECIFICATION	

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

* Upper and lower blocks form a one-piece casing.

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	52A	Upper Bearing	1	6201ZZC3
20A	Upper Pump Casing *	1	Plastic W/GF	52B	Lower Bearing	1	6302ZZC3
20B	Lower Pump Casing	1	Plastic	53	Motor Protector	1	
21	Impeller	1	Plastic W/GF	54	Shaft	1	Titanium
23	Strainer	1	Plastic	55	Rotor	1	
25	Mechanical Seal	1	W-14HC	56	Stator	1	
29	Oil Casing	1	Plastic W/GF	60	Bearing Housing	1	Aluminium Die Casting
30	Oil Lifter	1	Plastic	64	Motor Frame	1	Titanium
35	Oil Plug	1	Titanium	106	Float	2	Plastic
36	Lubricant		Liquid Paraffin (ISO VG32)	109	Float Support Pipe	1	Plastic
46	Air Release Valve	1	Glass Ball	114	Power Relay	1	
48	Screwed Flange	1	Plastic W/GF	115	Transformer	1	
50	Motor Bracket	1	Aluminium Die Casting				
51	Head Cover	1	Plastic W/GF				

NO. A-10193-2

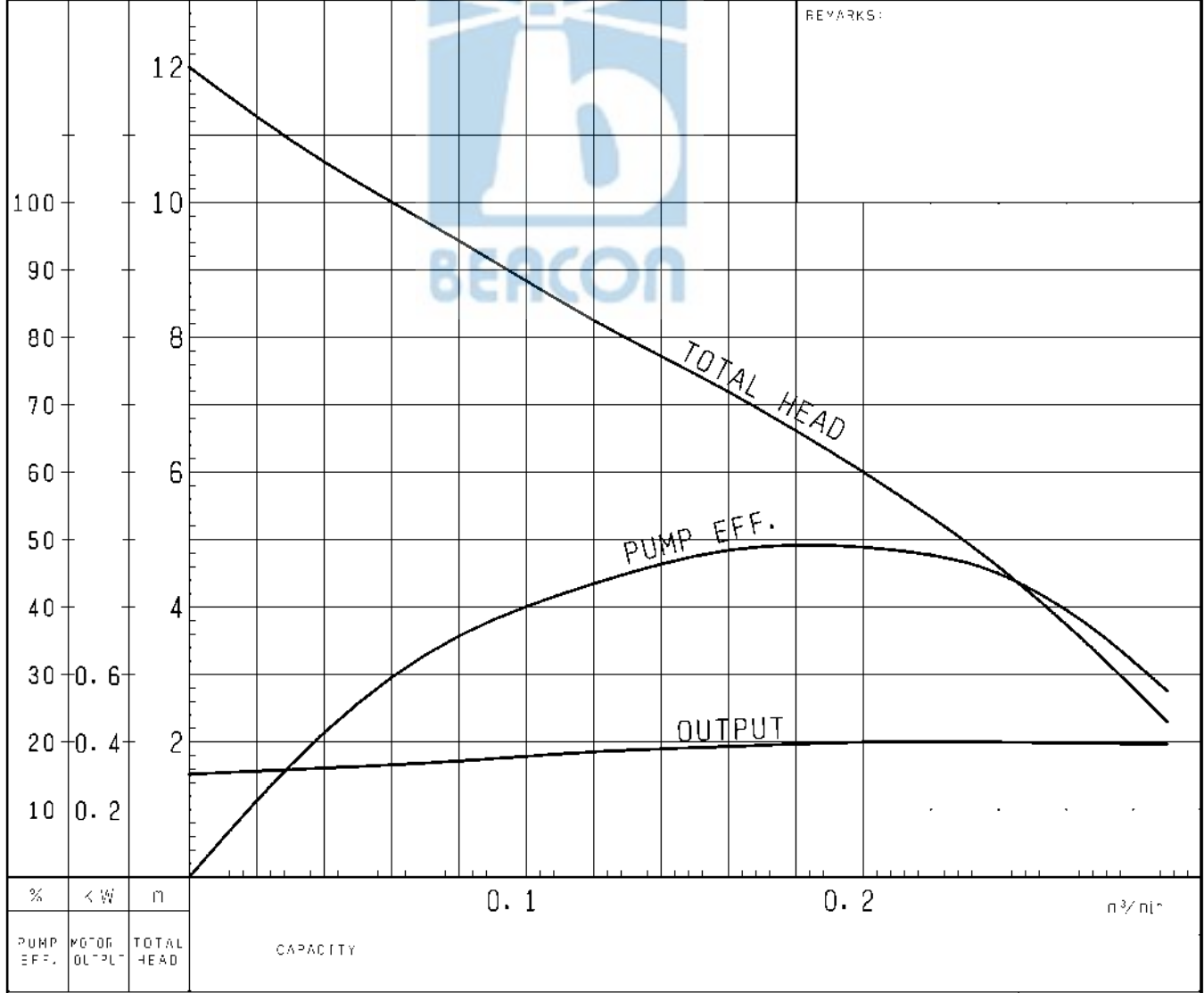
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM2.4S -52 50TMA2.4S -52	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	9.3 m	m
CAPACITY	0.08 m ³ /min	m ³ /min
MOTOR OUTPUT	0.4 kW	kW
PHASE x VOLTAGE	1 φ x V	φ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / s. s. 3000 min ⁻¹	P / min ⁻¹
STARTING METHOD	CAPACITOR MOTOR	
INSULATION CLASS	E	

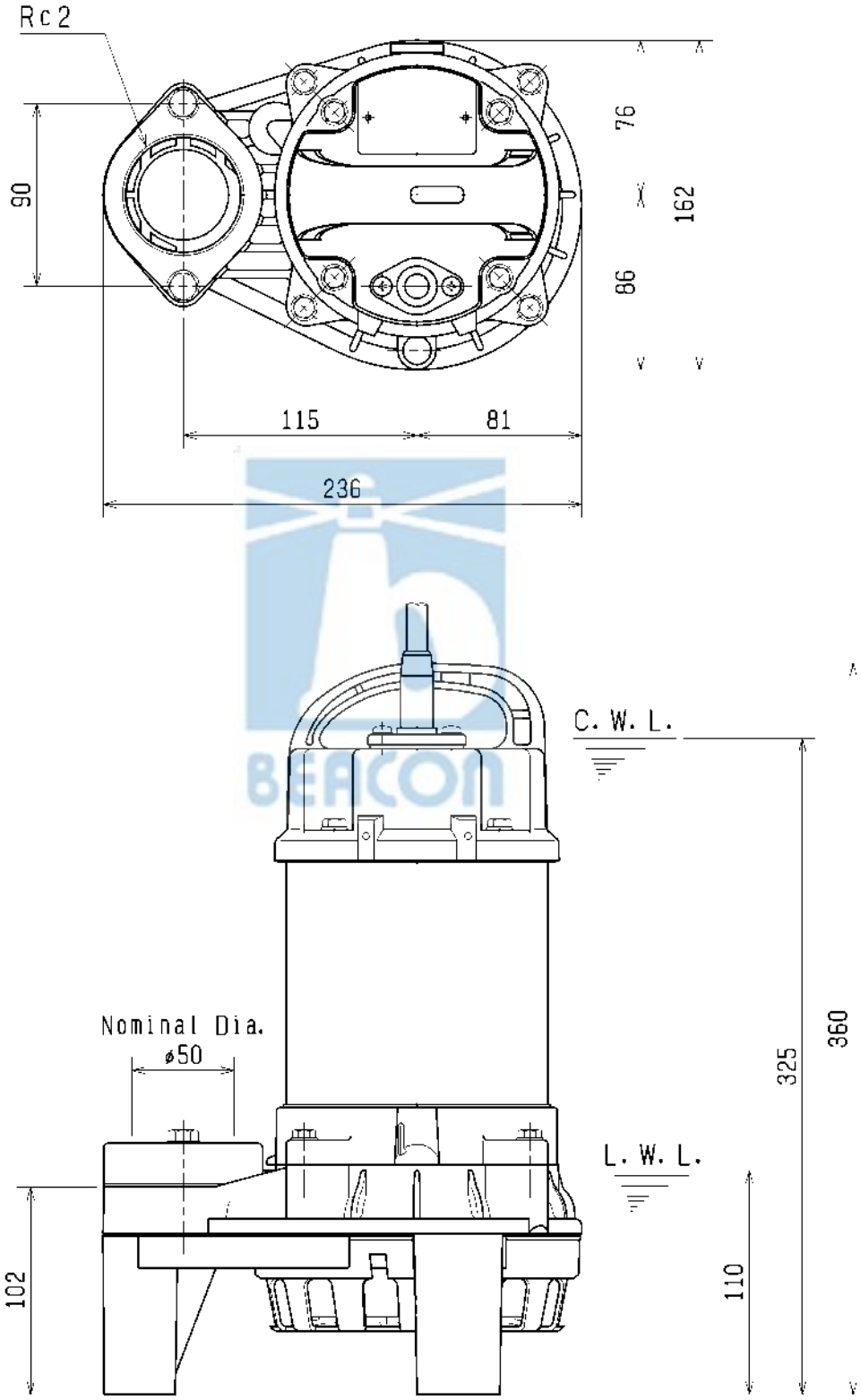


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DIMENSION DRAWING		No.	No. A-10206-2
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	50TM2.4S -52/62

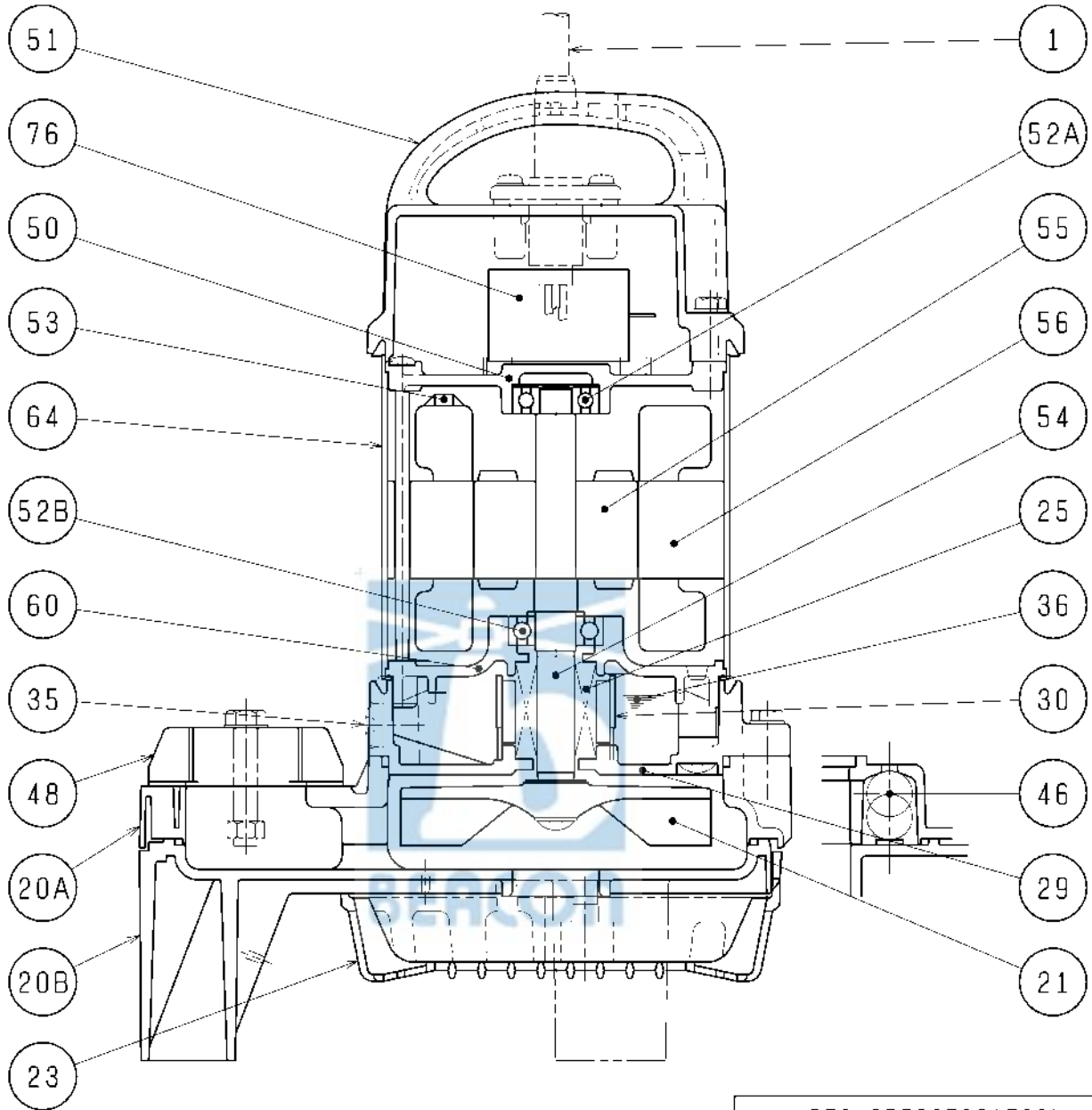
Approximate Weight (※)
6.7kg

※excluding cable



C.W.L. : Continuous running Water Level
L.W.L. : Lowest running Water Level

SECTIONAL DRAWING		No.	No. A-10214-4
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	40TM2.25S -52/62 50TM2.4S -52/62



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

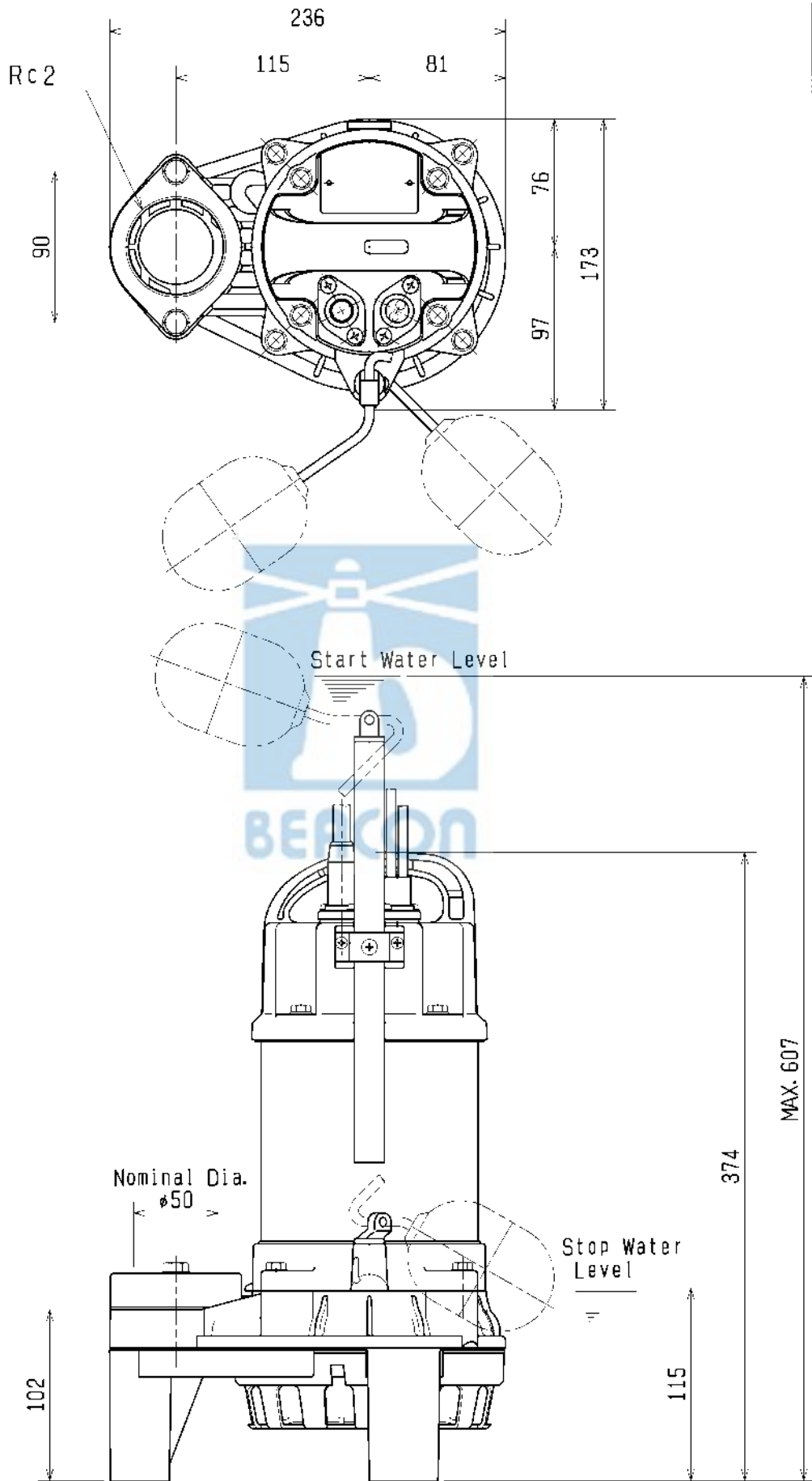
* Upper and lower blocks form a one-piece casing.

REQ. SPECIFICATION	

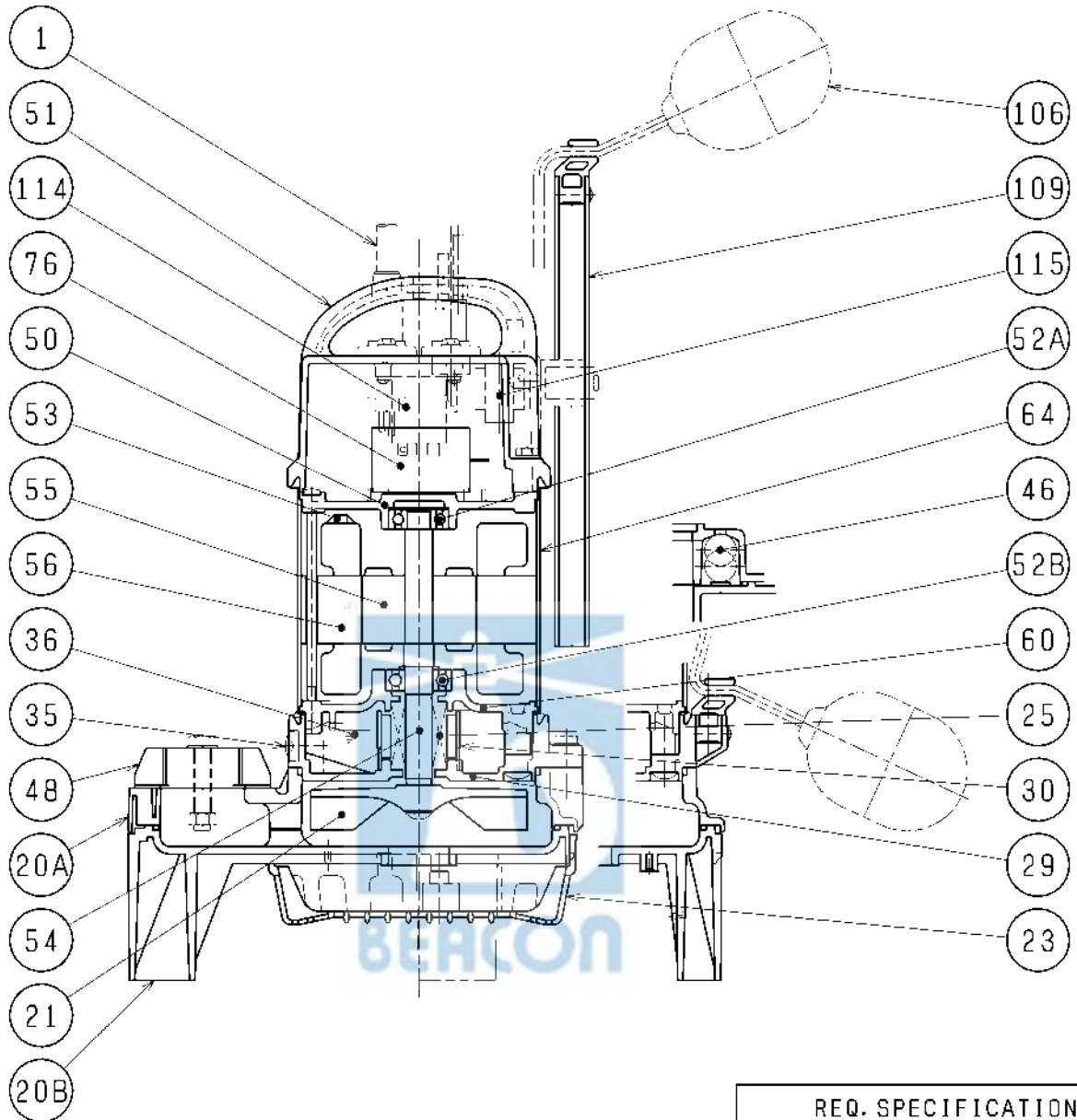
No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	51	Head Cover	1	Plastic W/GF
20A	Upper Pump Casing	*	Plastic W/GF	52A	Upper Bearing	1	6201ZZC3
20B	Lower Pump Casing	1	Plastic	52B	Lower Bearing	1	6302ZZC3
21	Impeller	1	Plastic W/GF	53	Motor Protector	1	
23	Strainer	1	Plastic	54	Shaft	1	Titanium
25	Mechanical Seal	1	W-14HC	55	Rotor	1	
29	Oil Casing	1	Plastic W/GF	56	Stator	1	
30	Oil Lifter	1	Plastic	60	Bearing Housing	1	Aluminium Die Casting
35	Oil Plug	1	Titanium	64	Motor Frame	1	Titanium
36	Lubricant		Liquid Paraffin (ISO VG32)	76	Capacitor	1	
46	Air Release Valve	1	Glass Ball				
48	Screwed Flange	1	Plastic W/GF				
50	Motor Bracket	1	Aluminium Die Casting				

DIMENSION DRAWING		No.	No. A-10207-2
TYPE Sea Water Submersible Titanium Seawater Pump (Automatic)		MODEL 50TMA2.4S -52/62	

Approximate Weight (※)
7.2kg
※excluding cable



SECTIONAL DRAWING		No.	No. A-10215-4
TYPE Sea Water Submersible Titanium Seawater Pump (Automatic)	MODEL	40TMA2.25S -52/62	50TMA2.4S -52/62



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

* Upper and lower blocks form a one-piece casing.

REQ. SPECIFICATION	

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	52B	Lower Bearing	1	6302ZC3
20A	Upper Pump Casing	*	Plastic W/GF	53	Motor Protector	1	
20B	Lower Pump Casing	1	Plastic	54	Shaft	1	Titanium
21	Impeller	1	Plastic W/GF	55	Rotor	1	
23	Strainer	1	Plastic	56	Stator	1	
25	Mechanical Seal	1	W-14HC	60	Bearing Housing	1	Aluminium Die Casting
29	Oil Casing	1	Plastic W/GF	64	Motor Frame	1	Titanium
30	Oil Lifter	1	Plastic	76	Capacitor	1	
35	Oil Plug	1	Titanium	106	Float	2	Plastic
36	Lubricant		Liquid Paraffin (ISO VG32)	109	Float Support Pipe	1	Plastic
46	Air Release Valve	1	Glass Ball	114	Power Relay	1	
48	Screwed Flange	1	Plastic W/GF	115	Transformer	1	
50	Motor Bracket	1	Aluminium Die Casting				
51	Head Cover	1	Plastic W/GF				
52A	Upper Bearing	1	6201ZC3				

NO. A-10197-1

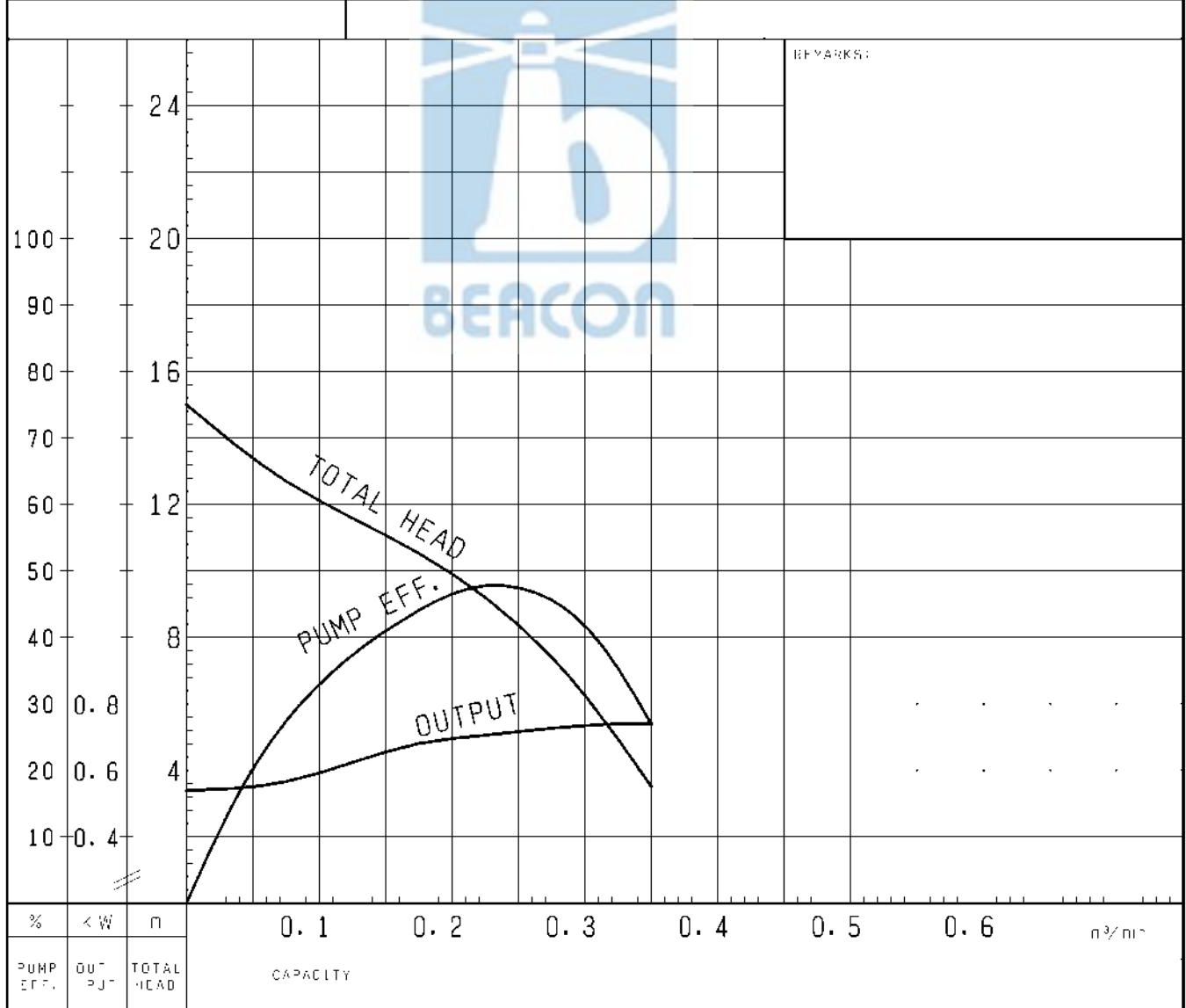
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM2.75 -52 50TMA2.75 -52	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

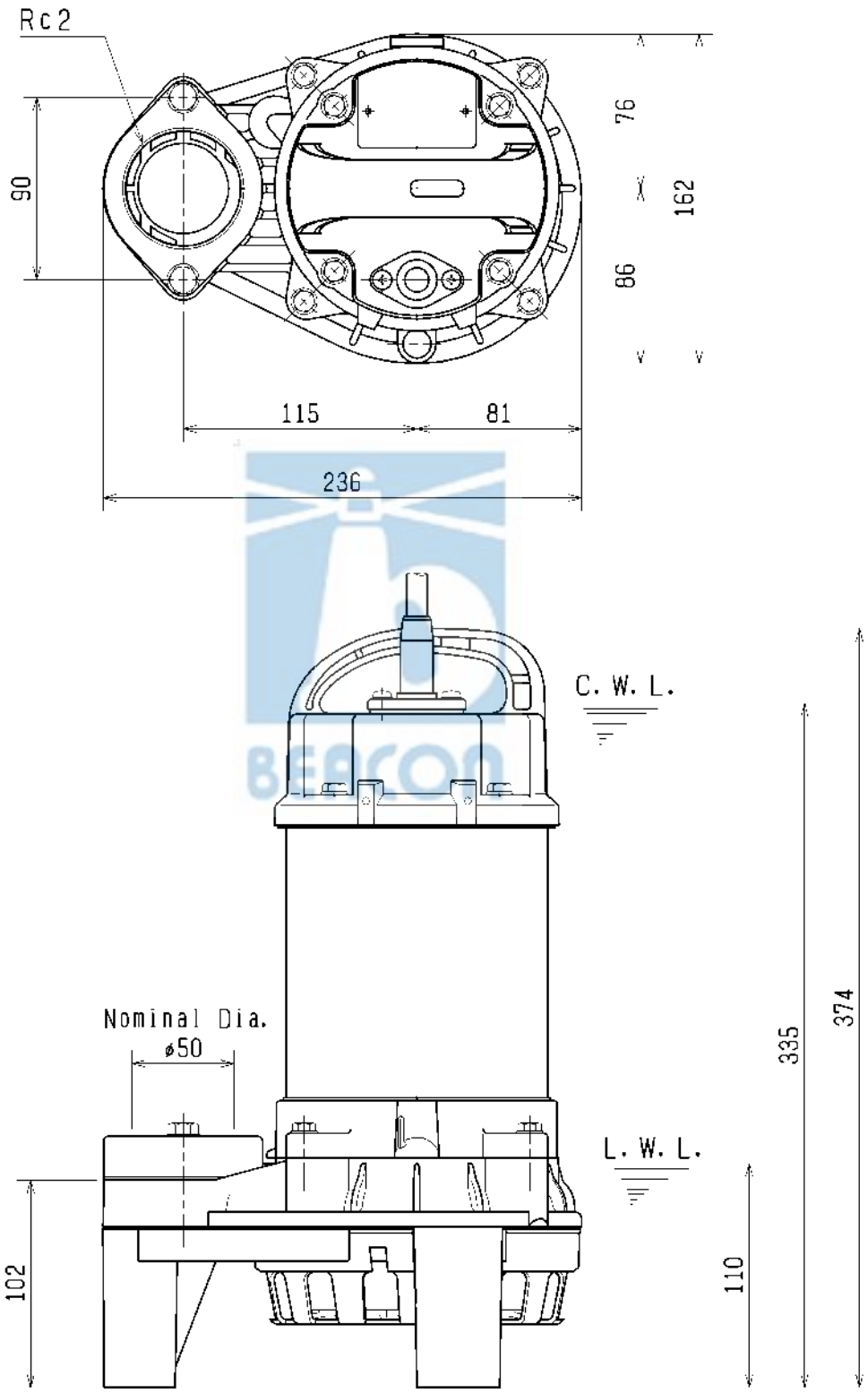
	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	11.5 m	m
CAPACITY	0.13 m ³ /min	m ³ /min
MOTOR OUTPUT	0.75 kW	kW
PHASE x VOLTAGE	3 φ x V	φ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / S. S. 3000 min ⁻¹	P / min ⁻¹
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	E	



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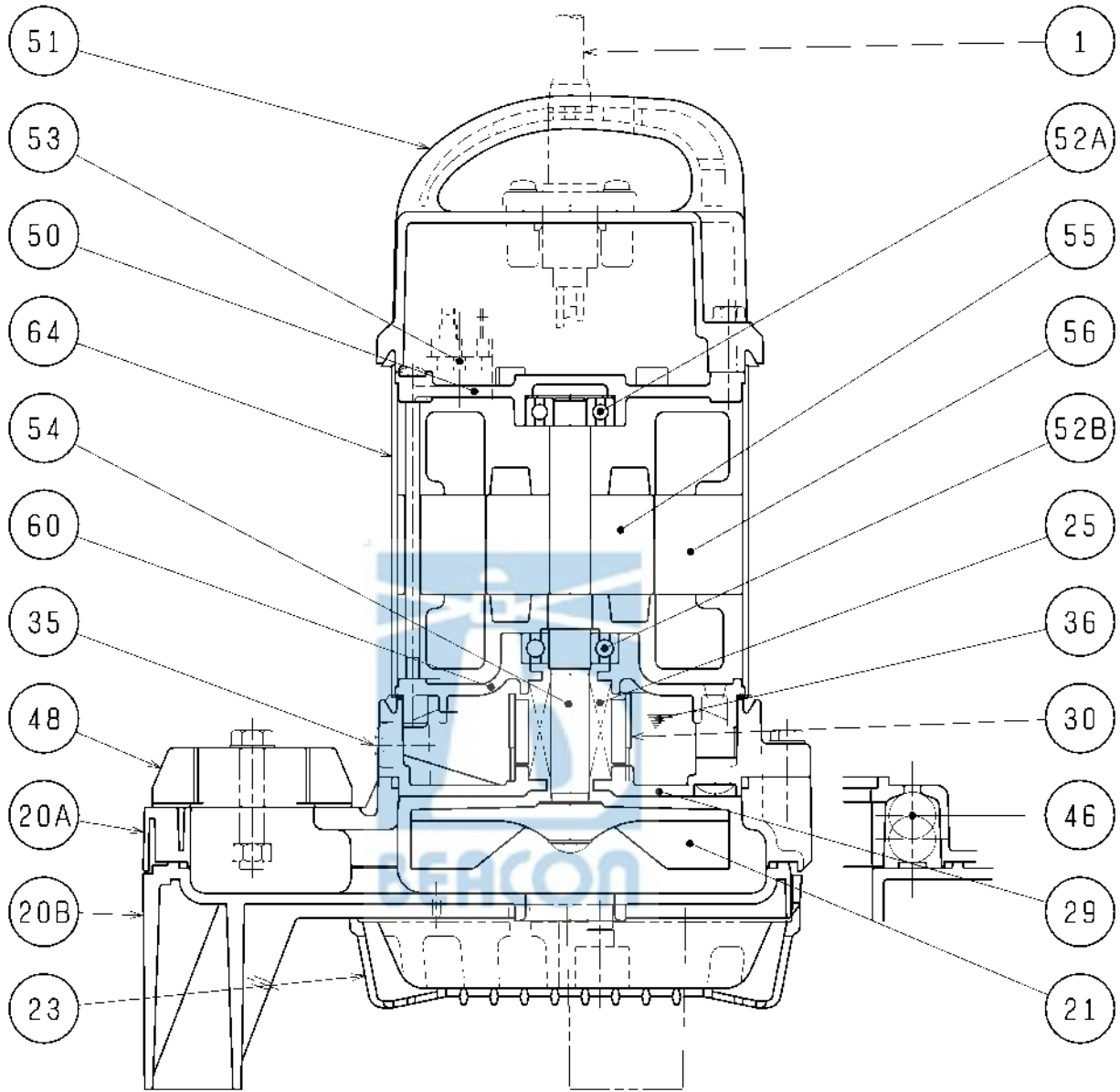
DIMENSION DRAWING		No.	No. A-10210-2
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	50TM2.75 -52/62

Approximate Weight (※)
7.8kg
※excluding cable



C.W.L. : Continuous running Water Level
L.W.L. : Lowest running Water Level

SECTIONAL DRAWING		No.	No. A-10216-4
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	40TM2.25 -52/62, 50TM2.4 -52/62 50TM2.75 -52/62



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

* Upper and lower blocks form a one-piece casing.

REQ. SPECIFICATION		

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	50	Motor Bracket	1	Aluminium Die Casting
20A	Upper Pump Casing *	1	Plastic W/GF	51	Head Cover	1	Plastic W/GF
20B	Lower Pump Casing	1	Plastic	52A	Upper Bearing	1	6201ZZC3
21	Impeller	1	Plastic W/GF	52B	Lower Bearing	1	6302ZZC3
23	Strainer	1	Plastic	53	Motor Protector	1	
25	Mechanical Seal	1	W-14HC	54	Shaft	1	Titanium
29	Oil Casing	1	Plastic W/GF	55	Rotor	1	
30	Oil Lifter	1	Plastic	56	Stator	1	
35	Oil Plug	1	Titanium	60	Bearing Housing	1	Aluminium Die Casting
36	Lubricant		Liquid Paraffin (ISO VG32)	64	Motor Frame	1	Titanium
46	Air Release Valve	1	Glass Ball				
48	Screwed Flange	1	Plastic W/GF				

NO. A-10197-1

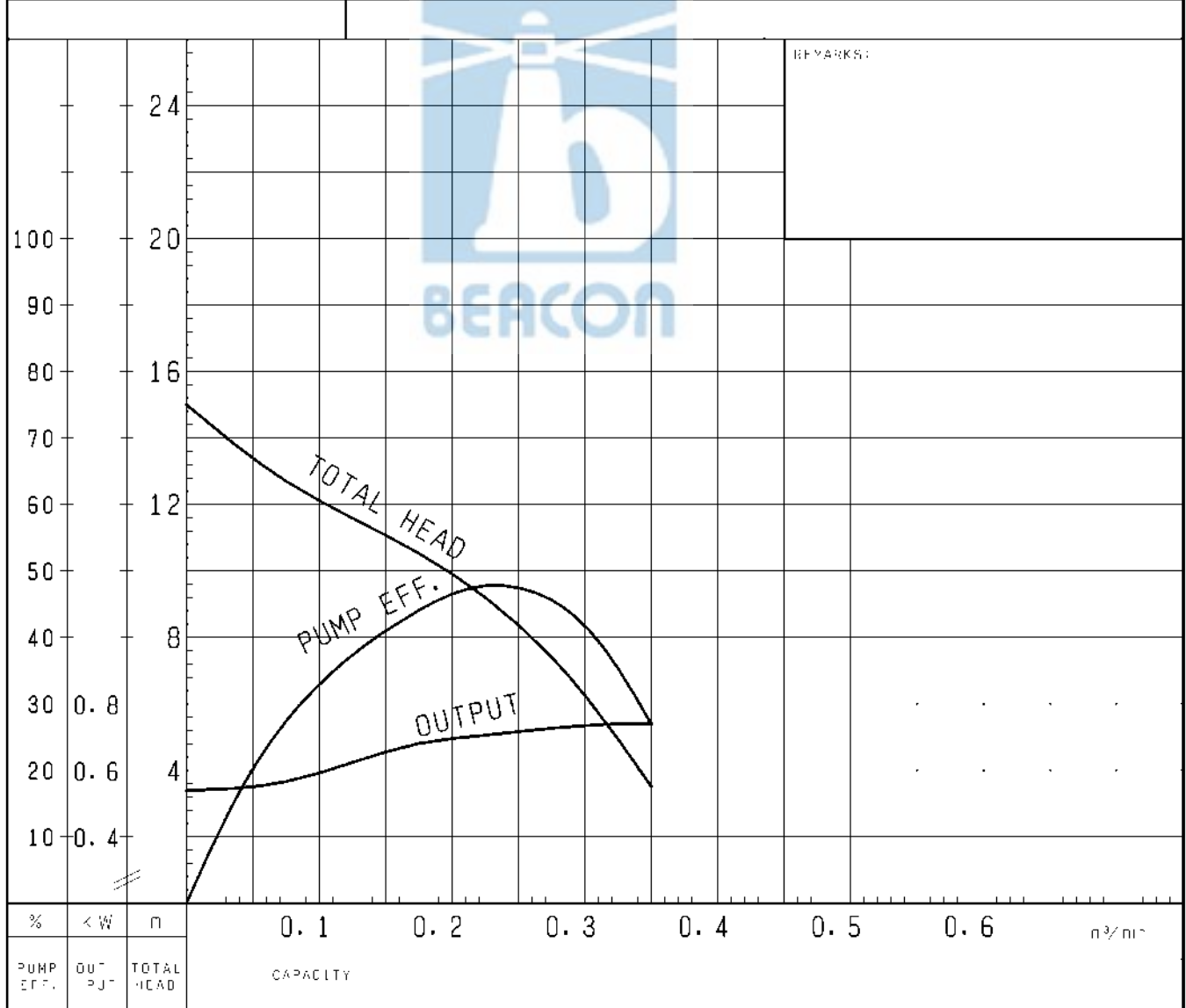
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM2.75 -52 50TMA2.75 -52	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	11.5 m	m
CAPACITY	0.13 m ³ /min	m ³ /min
MOTOR OUTPUT	0.75 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	

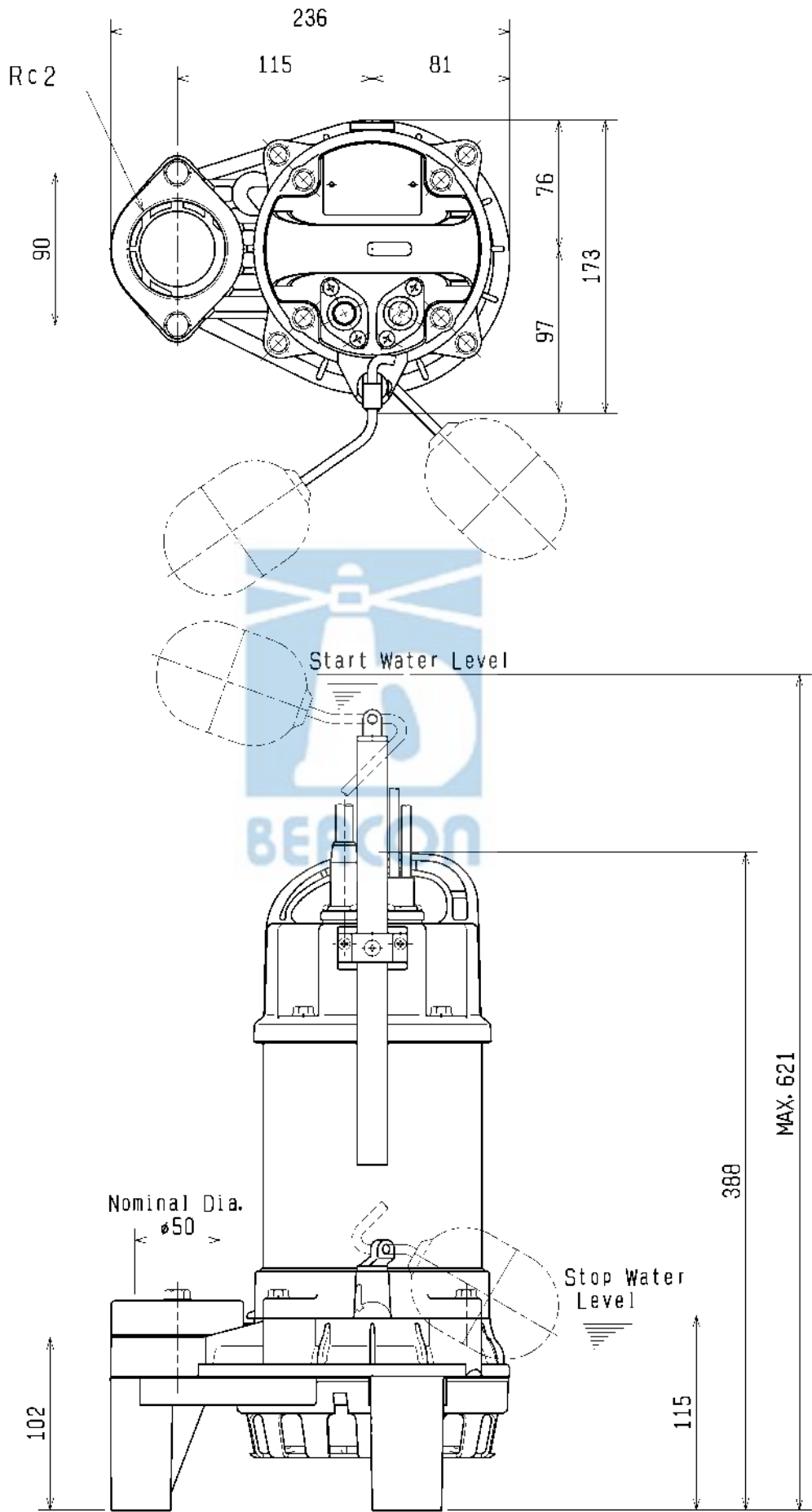


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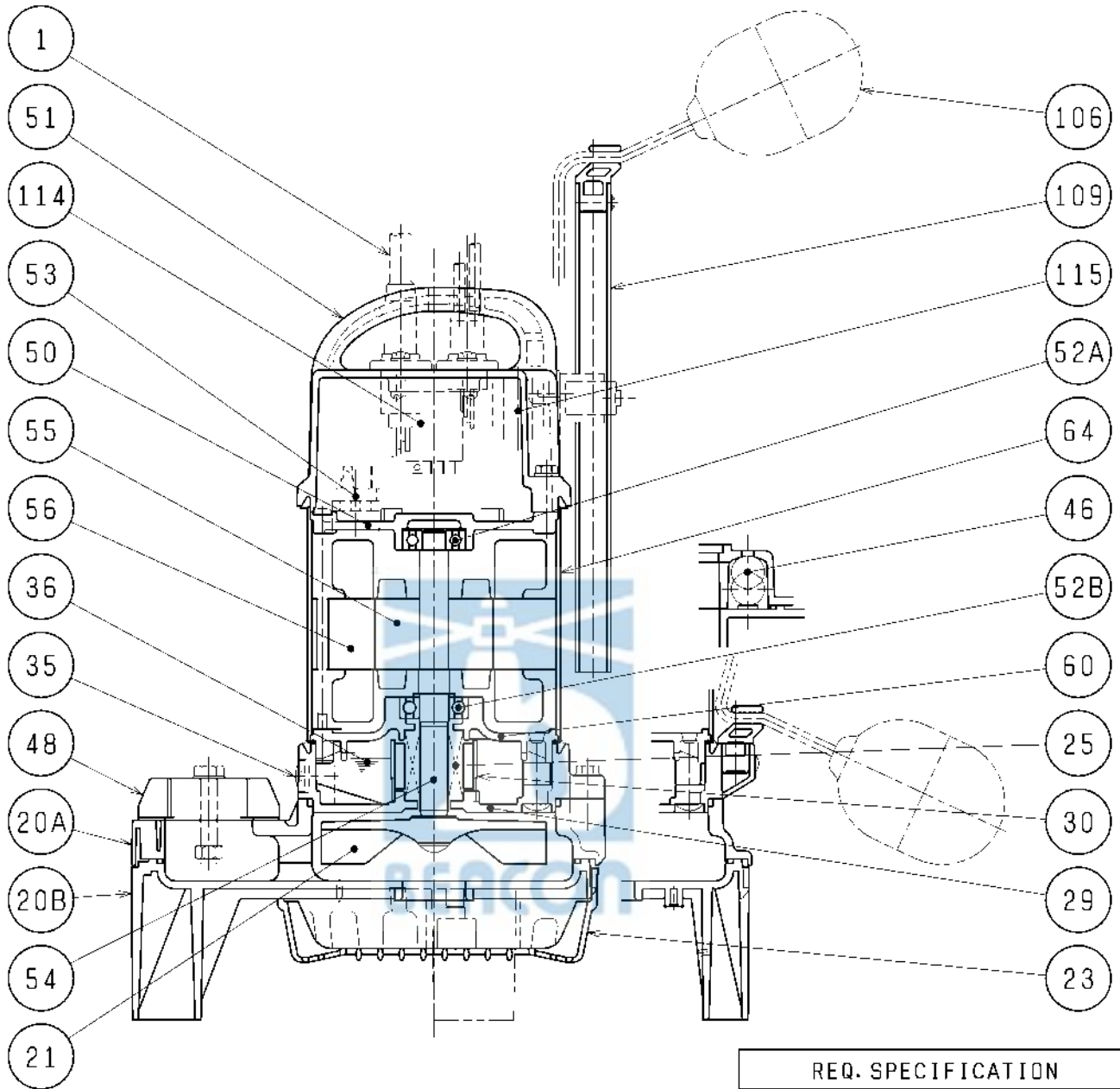
DIMENSION DRAWING		No.	No. A-10211-2
TYPE	Sea Water Submersible Titanium Seawater Pump (Automatic)	MODEL	50TMA2.75 -52/62

Approximate Weight (※)
8.4kg

※excluding cable



SECTIONAL DRAWING		No.	No. A-10217-4
TYPE Sea Water Submersible Titanium Seawater Pump (Automatic)		MODEL 40TMA2.25 -52/62, 50TMA2.4 -52/62 50TMA2.75 -52/62	



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

* Upper and lower blocks form a one-piece casing.

REQ. SPECIFICATION	

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	52A	Upper Bearing	1	6201ZZC3
20A	Upper Pump Casing *	1	Plastic W/GF	52B	Lower Bearing	1	6302ZZC3
20B	Lower Pump Casing	1	Plastic	53	Motor Protector	1	
21	Impeller	1	Plastic W/GF	54	Shaft	1	Titanium
23	Strainer	1	Plastic	55	Rotor	1	
25	Mechanical Seal	1	W-14HC	56	Stator	1	
29	Oil Casing	1	Plastic W/GF	60	Bearing Housing	1	Aluminium Die Casting
30	Oil Lifter	1	Plastic	64	Motor Frame	1	Titanium
35	Oil Plug	1	Titanium	106	Float	2	Plastic
36	Lubricant		Liquid Paraffin (ISO VG32)	109	Float Support Pipe	1	Plastic
46	Air Release Valve	1	Glass Ball	114	Power Relay	1	
48	Screwed Flange	1	Plastic W/GF	115	Transformer	1	
50	Motor Bracket	1	Aluminium Die Casting				
51	Head Cover	1	Plastic W/GF				

NO. A-17735-1

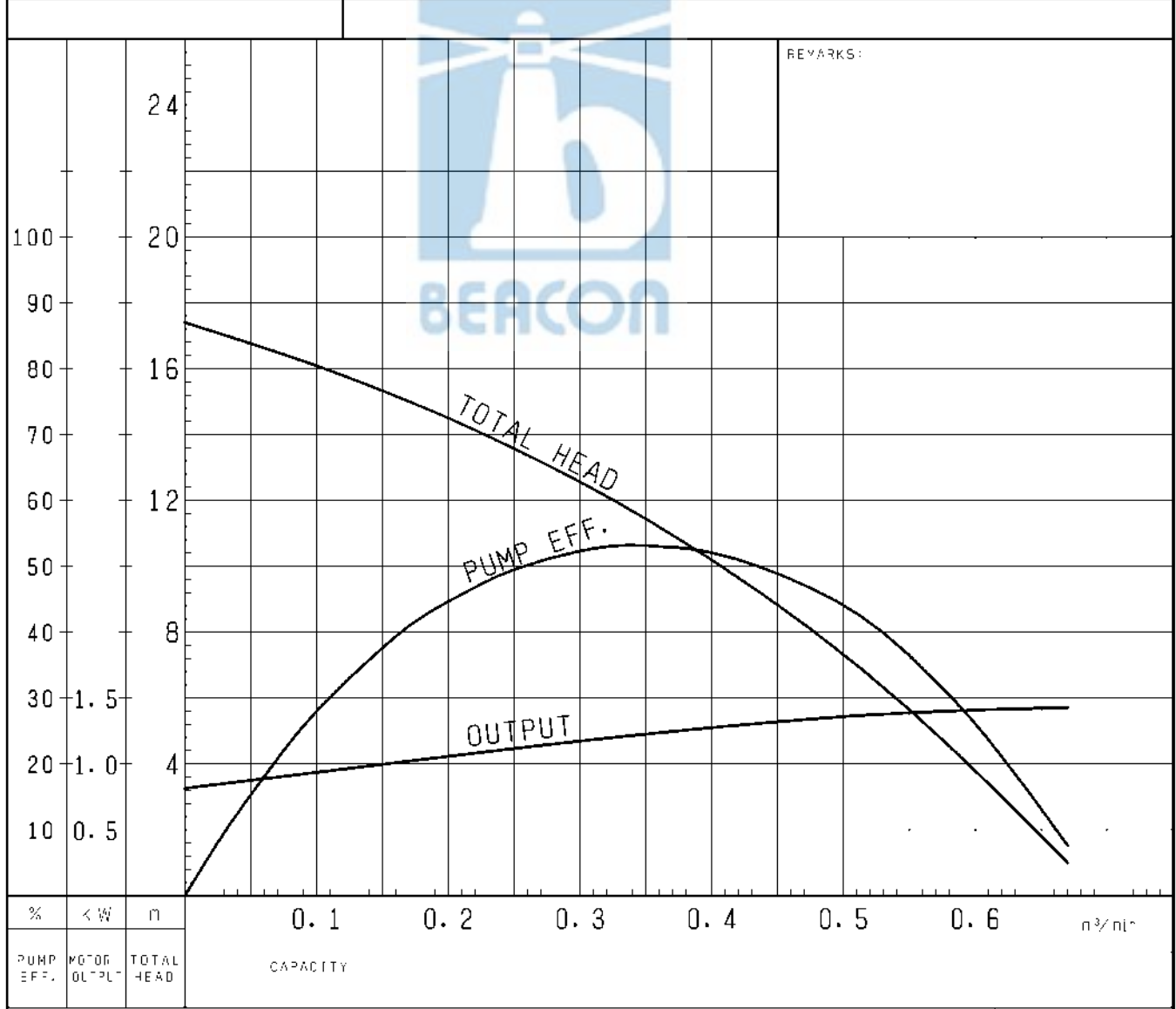
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM21.5 -51 50TMA21.5 -51	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

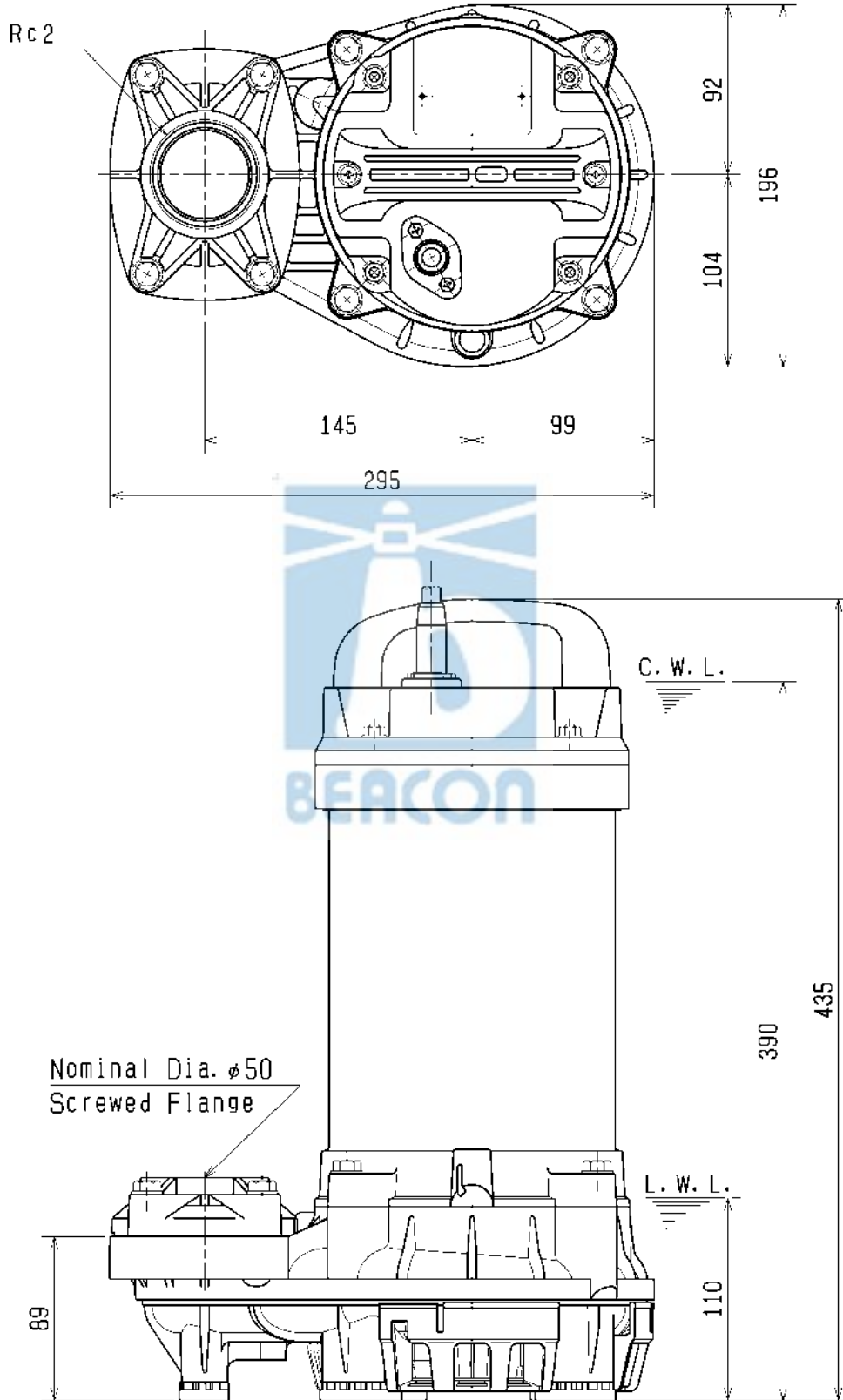
	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	14.5 m	m
CAPACITY	0.2 m ³ /min	m ³ /min
MOTOR OUTPUT	1.5 kW	kW
PHASE x VOLTAGE	3 φ x 200 V	φ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / s. s. 3000 min ⁻¹	P / min ⁻¹
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	E	



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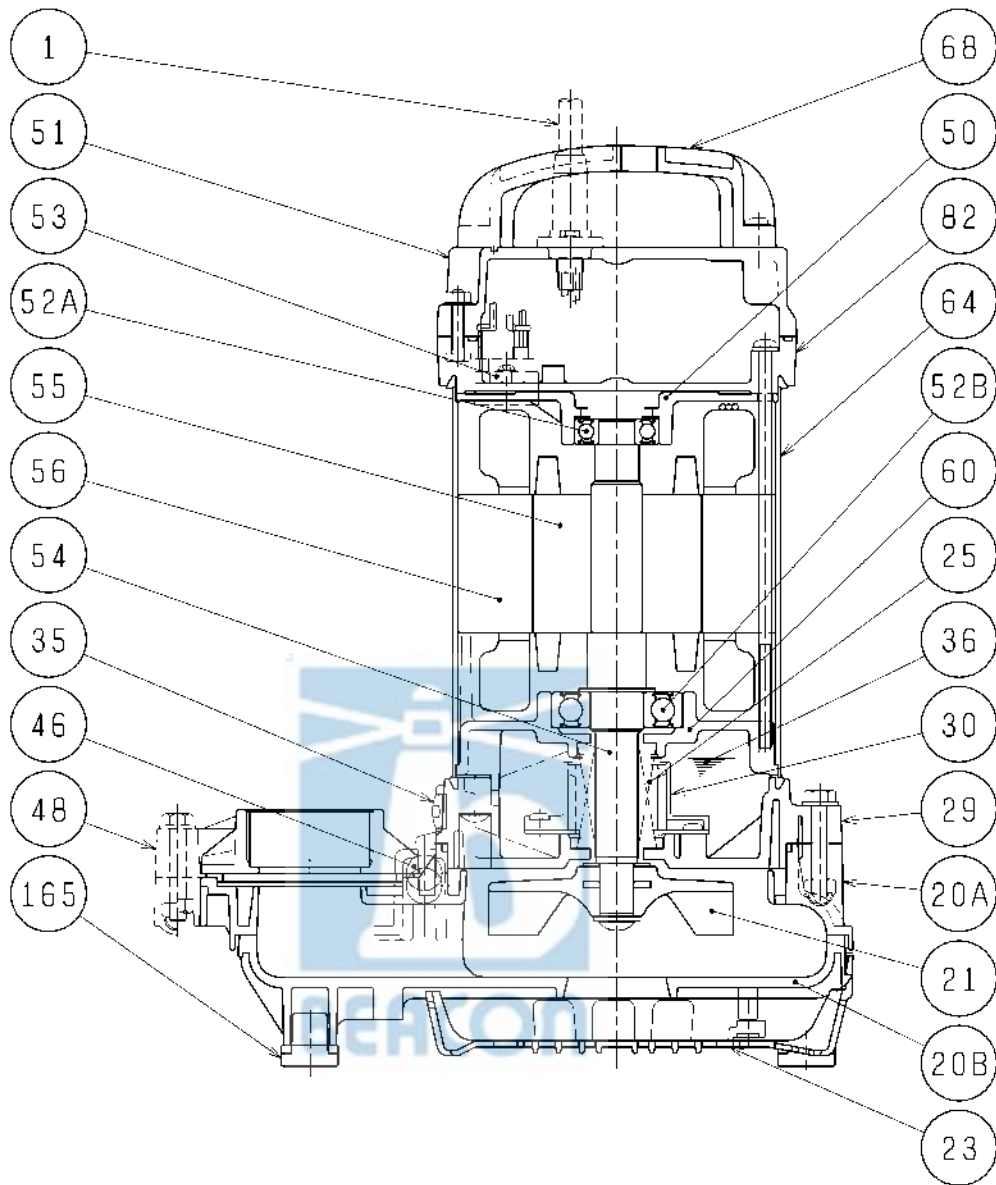
DIMENSION DRAWING		No.	No. A-17737-1
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	50TM21.5 -51/61

Approximate
Weight (kg)
14.9kg
*excluding cable



C. W. L. :Continuous running Water Level
L. W. L. :Lowest running Water Level

SECTIONAL DRAWING		No.	No. A-17739-2
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	50TM21.5 -51/61



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

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

※2 the wetted part

REQ. SPECIFICATION	

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable Cable	1	PVC Sheath	52A	Upper Bearing	1	6203ZZC3
20A	Upper Pump Casing ※1	1	Plastic W/GF	52B	Lower Bearing	1	6305ZZC3
20B	Lower Pump Casing	1	Plastic W/GF	53	Motor Protector	1	
21	Impeller	1	Plastic W/GF	54	Shaft	1	Titanium(※2)
23	Strainer	1	Plastic	55	Rotor	1	
25	Mechanical Seal	1	H-20A	56	Stator	1	
29	Oil Casing	1	Plastic W/GF	60	Bearing Housing	1	Aluminium Alloy Casting
30	Oil Lifter	1	Plastic	64	Motor Frame	1	Titanium
35	Oil Plug	1	Titanium	68	Handle	1	Plastic
36	Lubricant		Liquid Paraffin (ISO VG32)	82	Head Cover Spacer	1	Plastic W/GF
46	Air Release Valve	1	Glass Ball	165	Rubber Foot	5	Nitrile Butadien Rubber
48	Screwed Flange	1	Plastic W/GF				
50	Motor Bracket	1	Aluminium Alloy Casting				
51	Head Cover	1	Plastic W/GF				

NO. A-17735-1

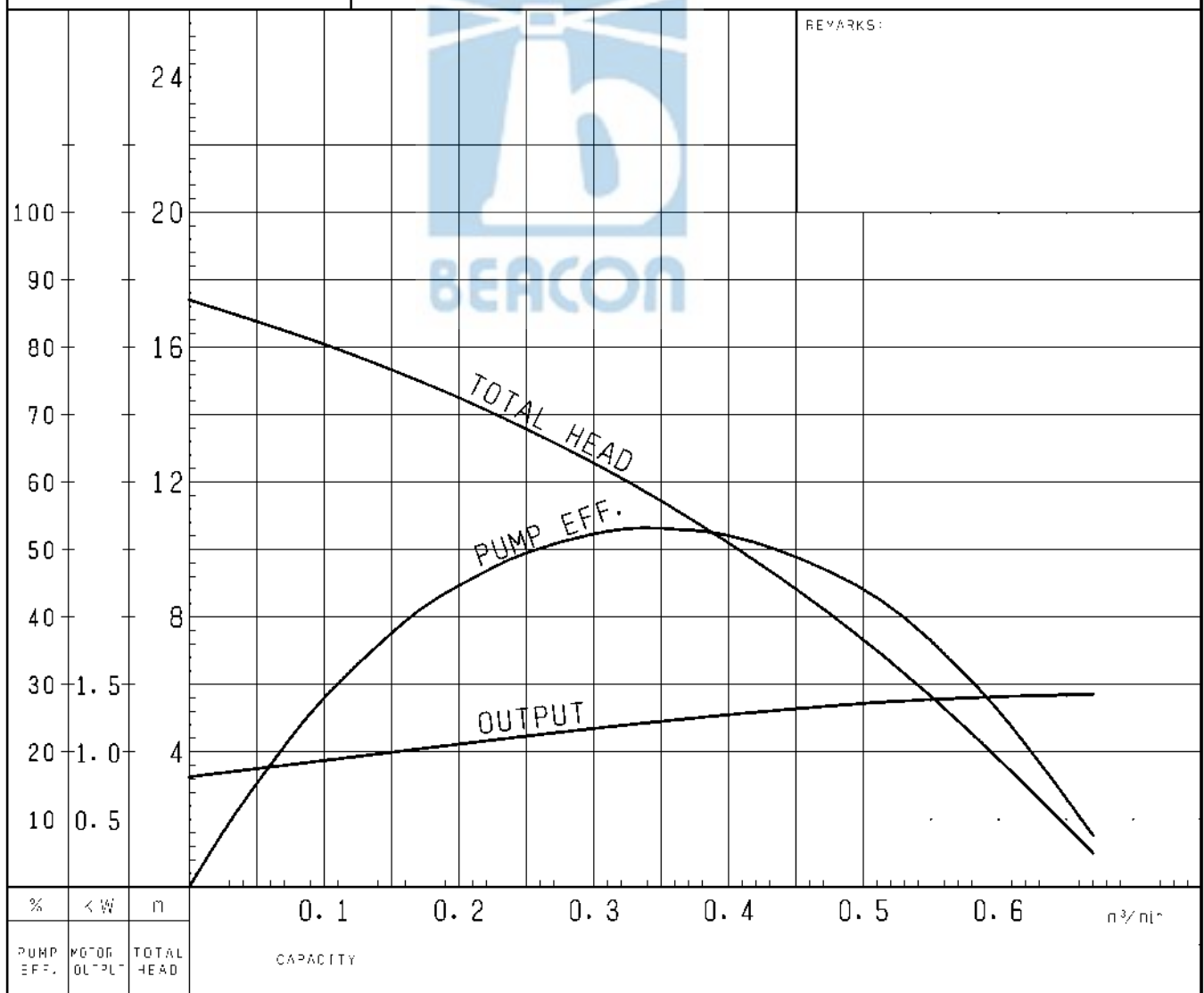
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM21.5 -51 50TMA21.5 -51	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____ NO. _____

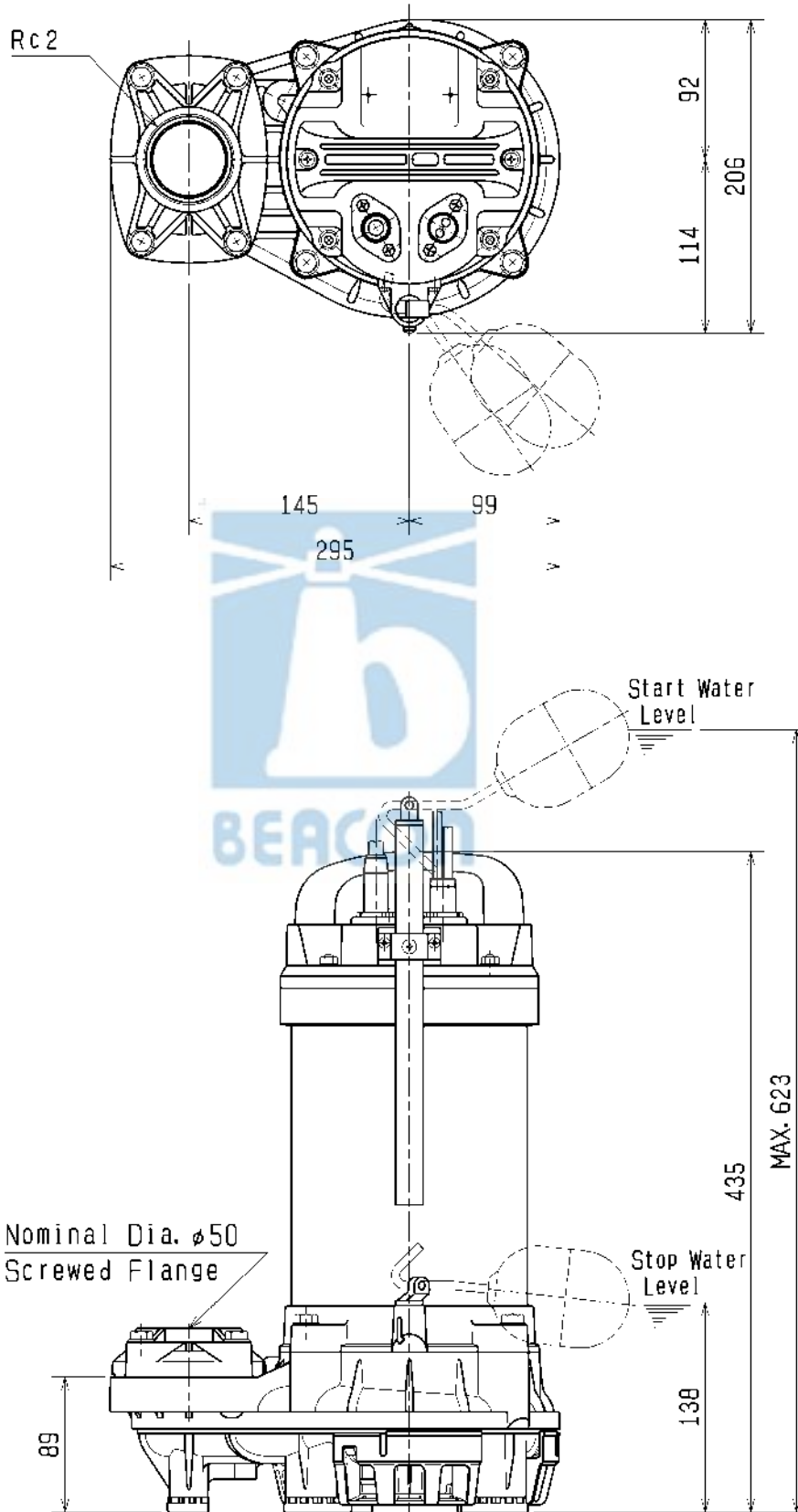
DISCHARGE BORE	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
TOTAL HEAD	14.5 m	m
CAPACITY	0.2 m ³ /min	m ³ /min
MOTOR OUTPUT	1.5 kW	kW
PHASE x VOLTAGE	3 φ x 200 V	φ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / s. s. 3000 min ⁻¹	P / min ⁻¹
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	E	



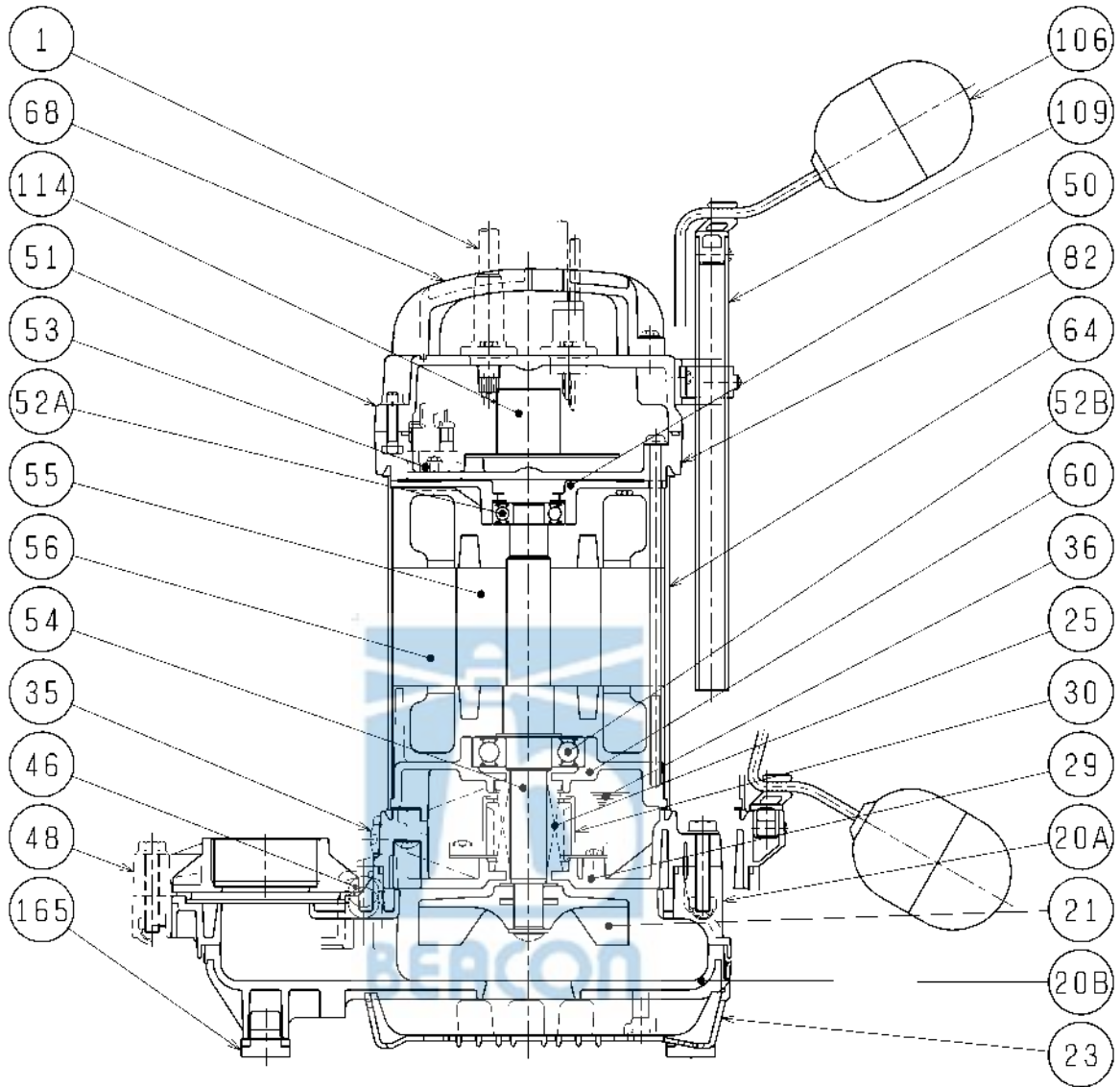
TSURUMI MFG. CO., LTD.

DIMENSION DRAWING		No.	No. A-17738-1
TYPE Sea Water Submersible Titanium Seawater Pump (Automatic)		MODEL	50TMA21.5 -51/61

Approximate Weight (※)
15.6kg
※excluding cable



SECTIONAL DRAWING		No.	No.	A-17740-2
TYPE Sea Water Submersible Titanium Seawater Pump (Automatic)		MODEL 50TMA21.5 -51/61		



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

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

※2 the wetted part

REQ. SPECIFICATION

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	52B	Lower Bearing	1	6305ZZC3
20A	Upper Pump Casing	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	H-20A	60	Bearing Housing	1	Aluminium Alloy Casting
29	Oil Casing	1	Plastic W/GF	64	Motor Frame	1	Titanium
30	Oil Lifter	1	Plastic	68	Handle	1	Plastic
35	Oil Plug	1	Titanium	82	Head Cover Spacer	1	Plastic W/GF
36	Lubricant		Liquid Paraffin (ISO VG32)	106	Float Set	2	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				

NO. A-19470-1

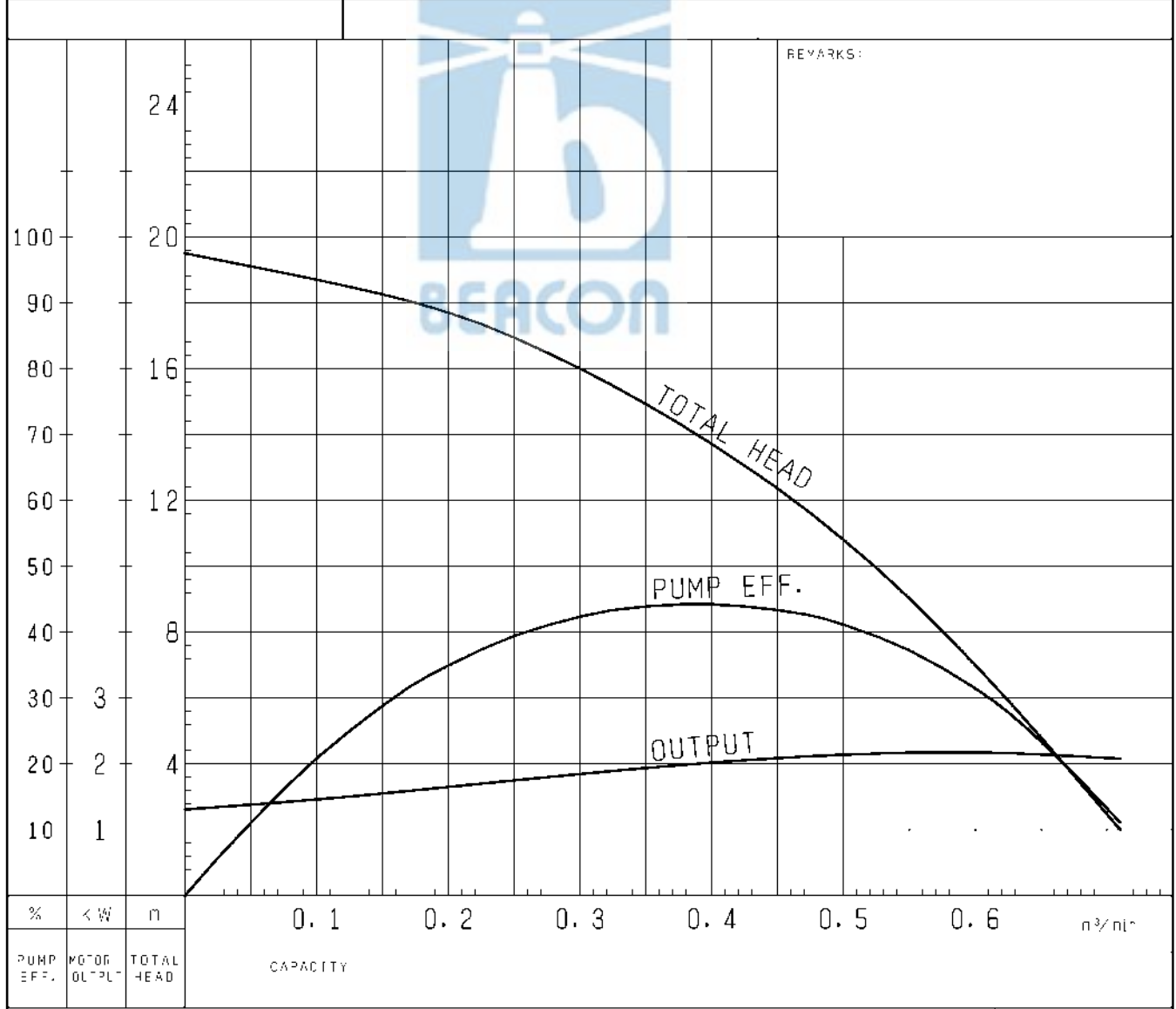
PUMP PERFORMANCE CURVES

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	



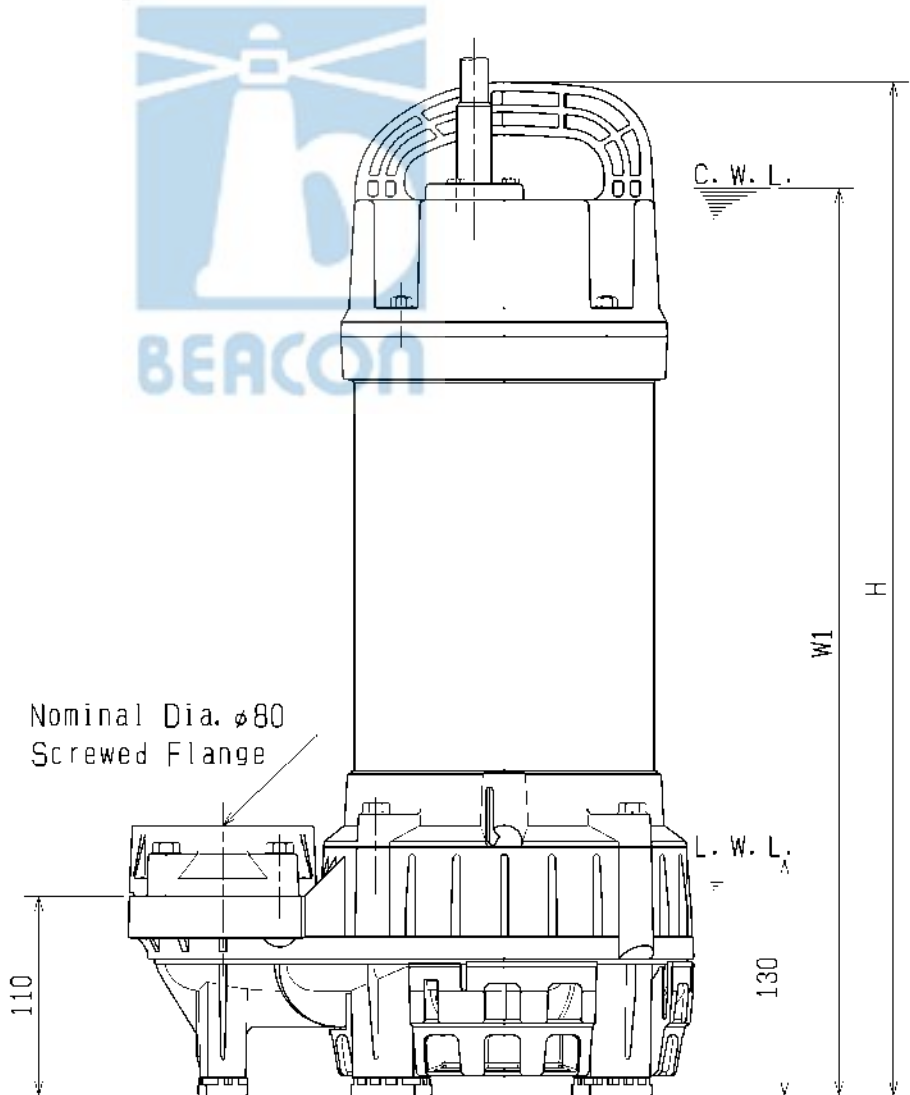
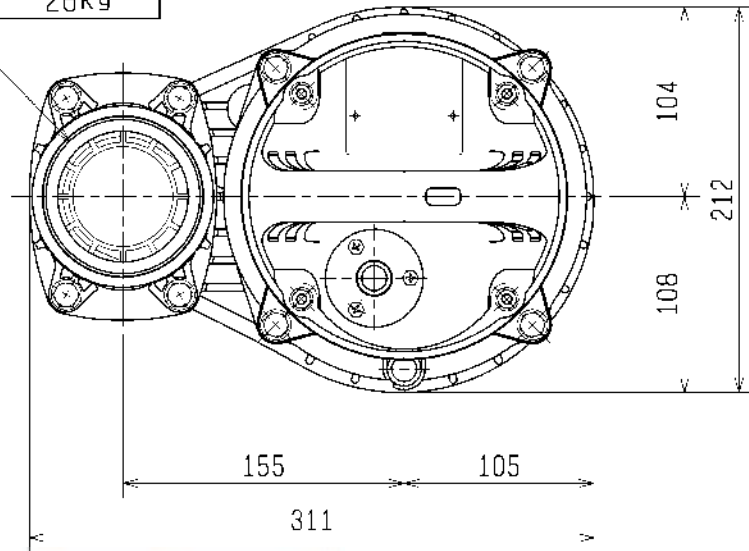
TSURUMI MFG. CO., LTD.

DIMENSION DRAWING		No.	No.
TYPE Sea Water Submersible Titanium Seawater Pump		MODEL	80TM22.2 -51/61 80TM23.7 -51/61
No. A-19480-1			

MODEL	W1	H	Approximate Weight (kg)
80TM22.2-51/61	500	559	21kg
80TM23.7-51/61	535	594	26kg

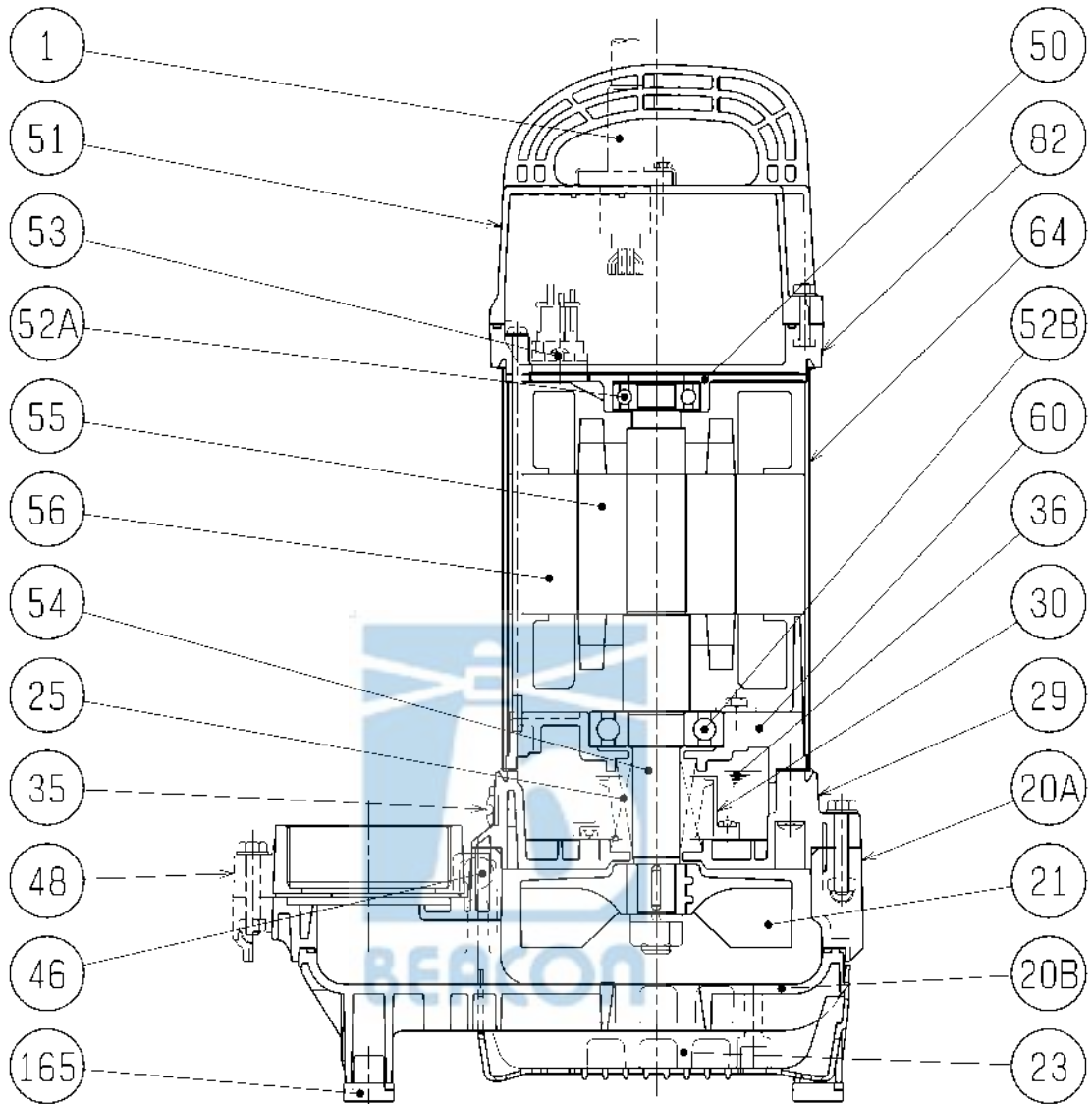
*excluding cable

Rc3



C.W.L. :Continuous running Water Level
L.W.L. :Lowest running Water Level

SECTIONAL DRAWING		No.	No. A-19488-1
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	80TM22.2 -51/61 80TM23.7 -51/61



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

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

※2 the wetted part

2.2kW	3.7kW
※3 H-25A	H-25AT

REQ. SPECIFICATION	

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	51	Head Cover	1	Plastic W/GF
20A	Upper Pump Casing	※1	Plastic W/GF	52A	Upper Bearing	1	6204ZCC3
20B	Lower Pump Casing	1	Plastic W/GF	52B	Lower Bearing	1	6306ZCC3
21	Impeller	1	Plastic W/GF	53	Motor Protector	1	
23	Strainer	1	Plastic	54	Shaft	1	Titanium(※2)
25	Mechanical Seal	1	※3	55	Rotor	1	
29	Oil Casing	1	Plastic W/GF	56	Stator	1	
30	Oil Lifter	1	Plastic	60	Bearing Housing	1	Aluminium Alloy Casting
35	Oil Plug	1	Titanium	64	Motor Frame	1	Titanium
36	Lubricant		Liquid Paraffin (ISO VG32)	82	Head Cover Spacer	1	Plastic W/GF
46	Air Release Valve	1	Glass Ball	165	Rubber Foot	5	Nitrile Butadien Rubber
48	Screwed Flange	1	Plastic W/GF				
50	Motor Bracket	1	Aluminium Alloy Casting				

NO. A-19470-1

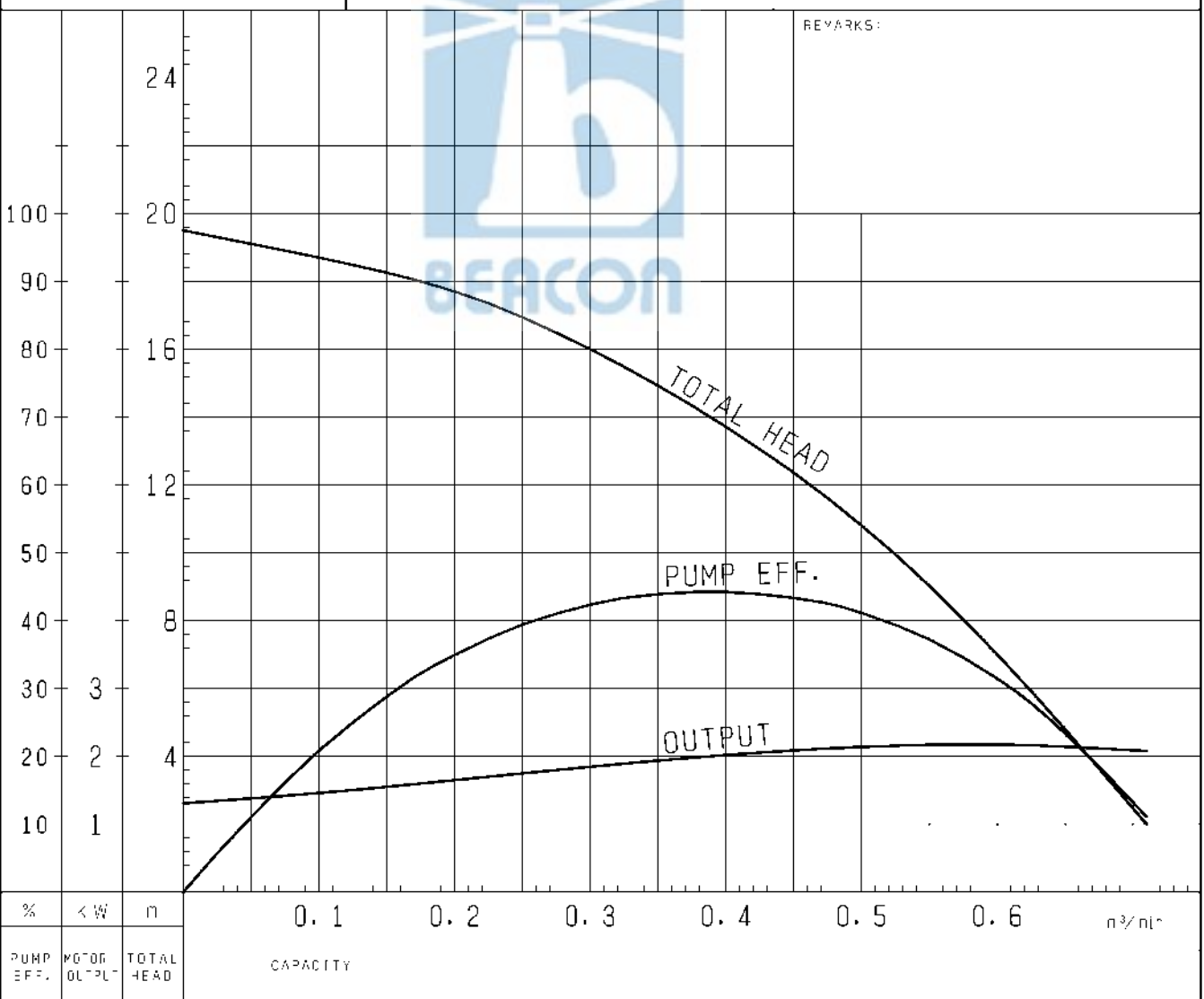
PUMP PERFORMANCE CURVES

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	

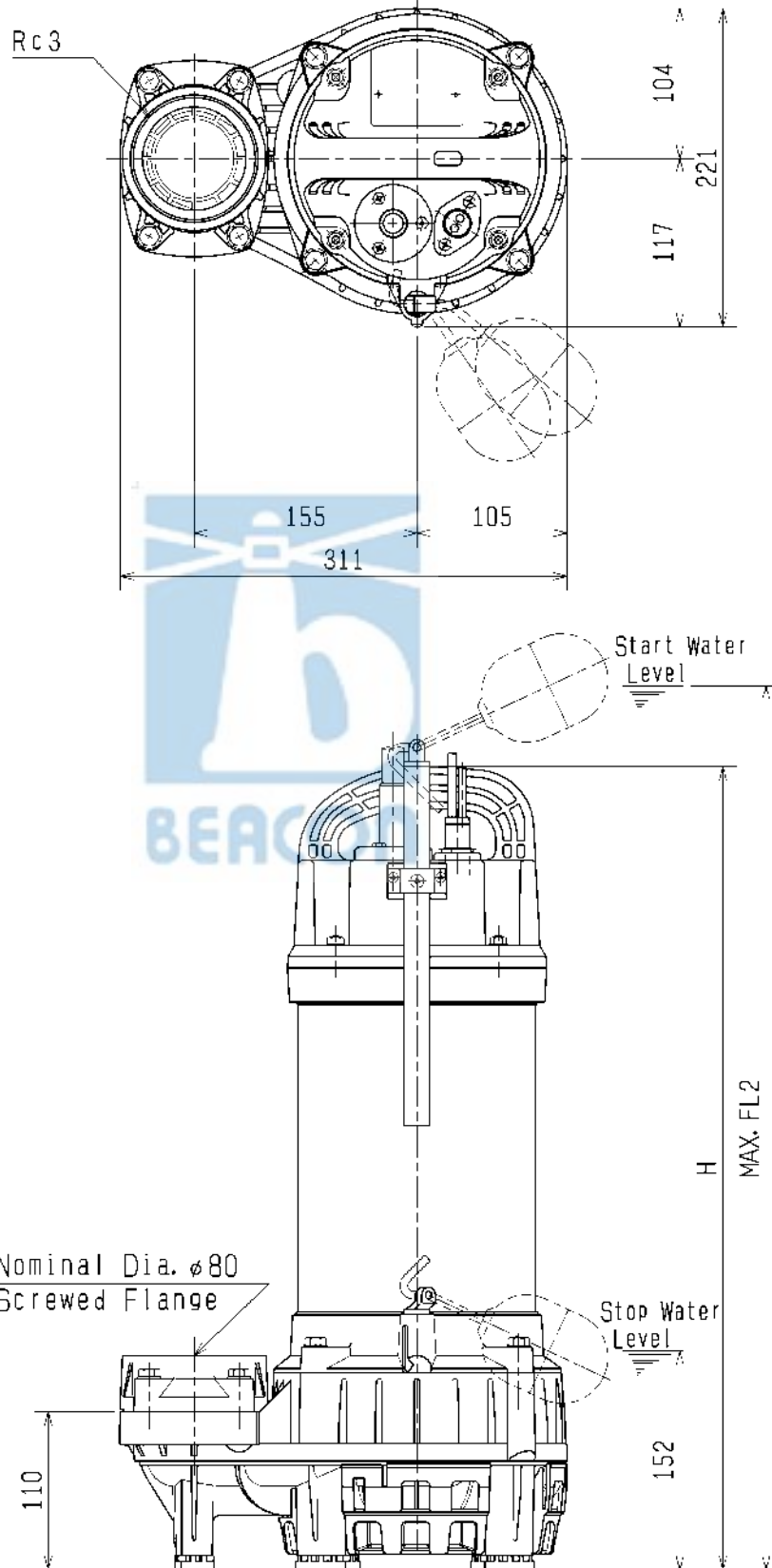


TSURUMI MFG. CO., LTD.

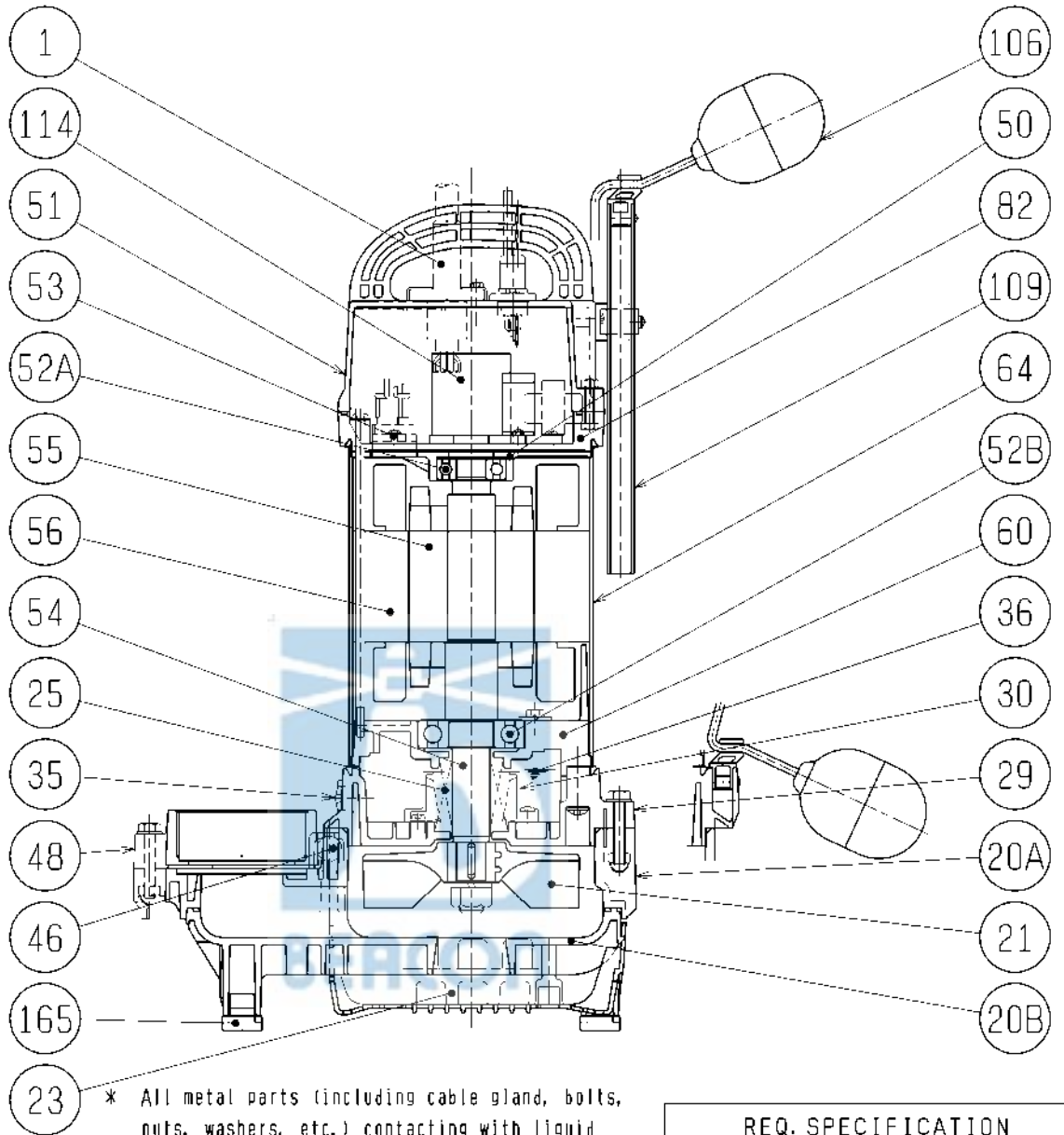
DIMENSION DRAWING		No.	No.	A-19481-1
TYPE	Sea Water Submersible Titanium Seawater Pump (Automatic)	MODEL	80TMA22.2 -51/61 80TMA23.7 -51/61	

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	



* 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.
H-25A	H-25AT	*2 the wetted part

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	52B	Lower Bearing	1	6306ZZC3
20A	Upper Pump Casing	*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 Unit	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	6204ZZC3				

NO. A-19472-1

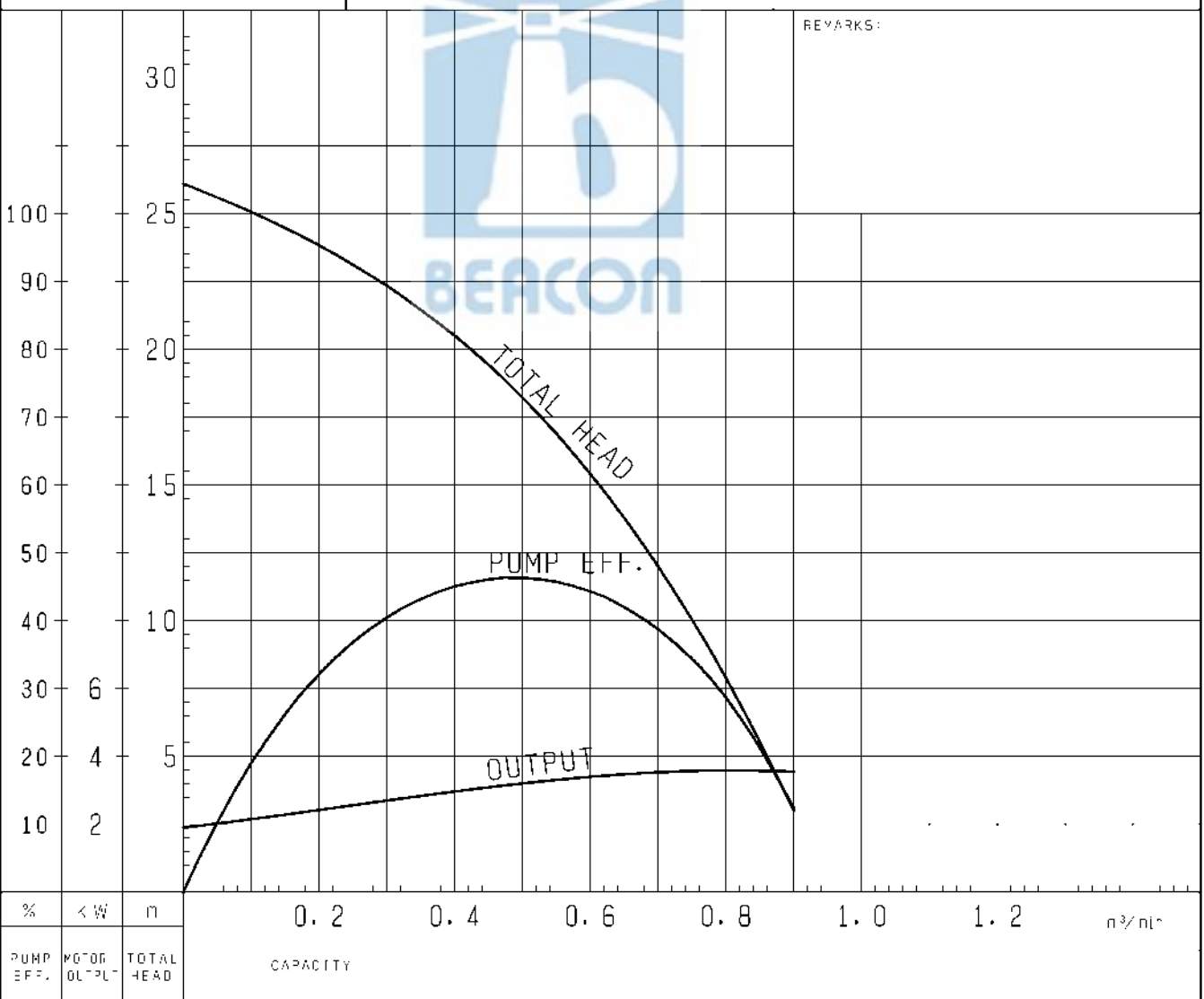
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 80TM23.7 -51 80TMA23.7 -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	20.5 m	m
CAPACITY	0.4 m ³ /min	m ³ /min
MOTOR OUTPUT	3.7 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	



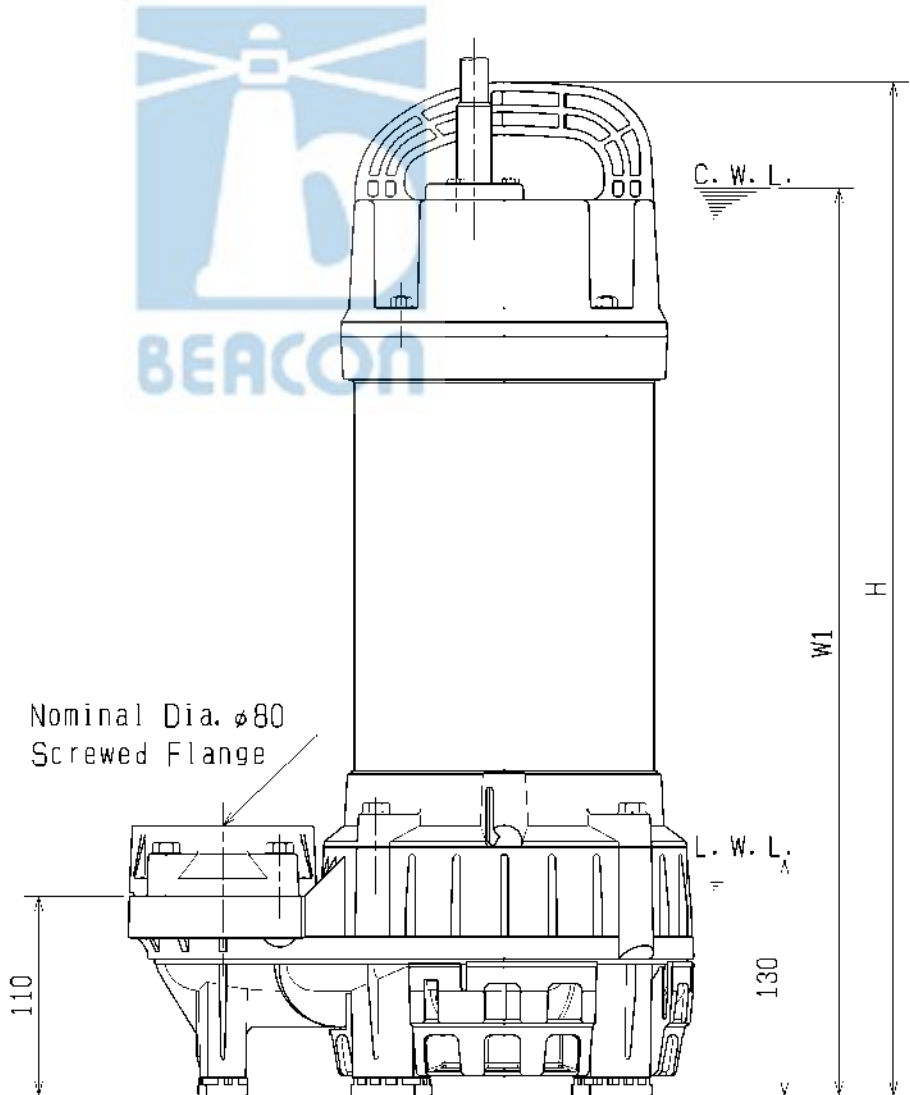
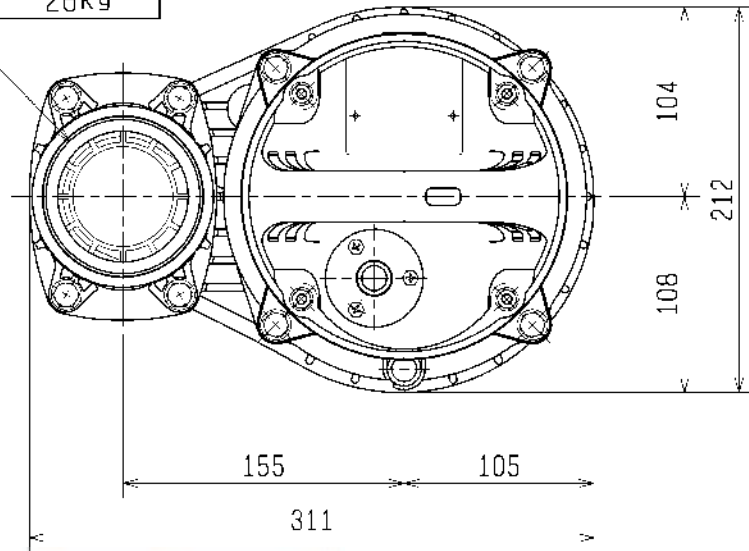
TSURUMI MFG. CO., LTD.

DIMENSION DRAWING		No.	No.
TYPE Sea Water Submersible Titanium Seawater Pump		MODEL	80TM22.2 -51/61 80TM23.7 -51/61
			A-19480-1

MODEL	W1	H	Approximate Weight (kg)
80TM22.2-51/61	500	559	21kg
80TM23.7-51/61	535	594	26kg

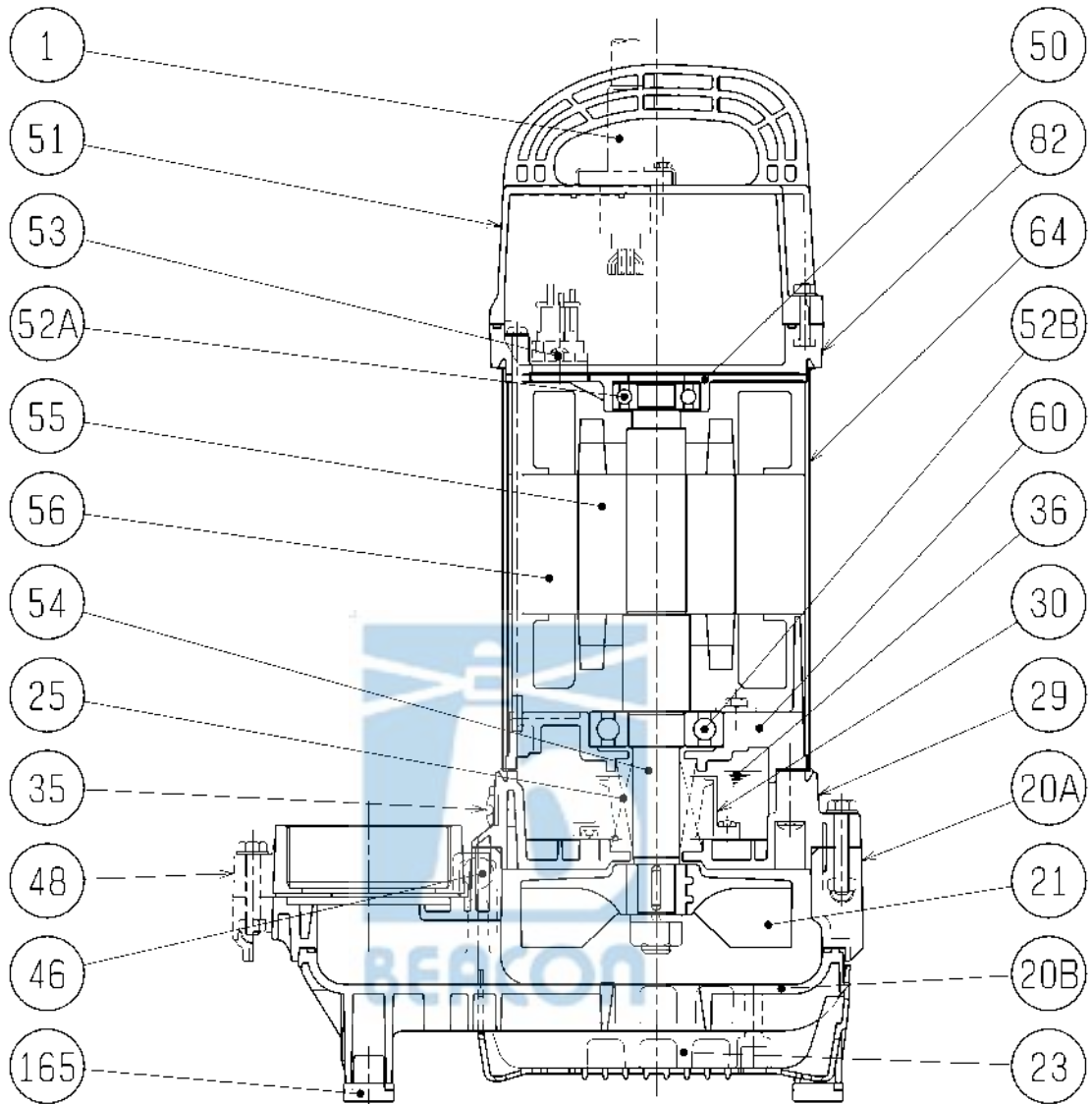
*excluding cable

Rc3



C.W.L. :Continuous running Water Level
L.W.L. :Lowest running Water Level

SECTIONAL DRAWING		No.	No. A-19488-1
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	80TM22.2 -51/61 80TM23.7 -51/61



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

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

※2 the wetted part

2.2kW	3.7kW
※3 H-25A	H-25AT

REQ. SPECIFICATION	

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cable	1	PVC Sheath	51	Head Cover	1	Plastic W/GF
20A	Upper Pump Casing	※1	Plastic W/GF	52A	Upper Bearing	1	6204ZCC3
20B	Lower Pump Casing	1	Plastic W/GF	52B	Lower Bearing	1	6306ZCC3
21	Impeller	1	Plastic W/GF	53	Motor Protector	1	
23	Strainer	1	Plastic	54	Shaft	1	Titanium(※2)
25	Mechanical Seal	1	※3	55	Rotor	1	
29	Oil Casing	1	Plastic W/GF	56	Stator	1	
30	Oil Lifter	1	Plastic	60	Bearing Housing	1	Aluminium Alloy Casting
35	Oil Plug	1	Titanium	64	Motor Frame	1	Titanium
36	Lubricant		Liquid Paraffin (ISO VG32)	82	Head Cover Spacer	1	Plastic W/GF
46	Air Release Valve	1	Glass Ball	165	Rubber Foot	5	Nitrile Butadien Rubber
48	Screwed Flange	1	Plastic W/GF				
50	Motor Bracket	1	Aluminium Alloy Casting				

NO. A-19472-1

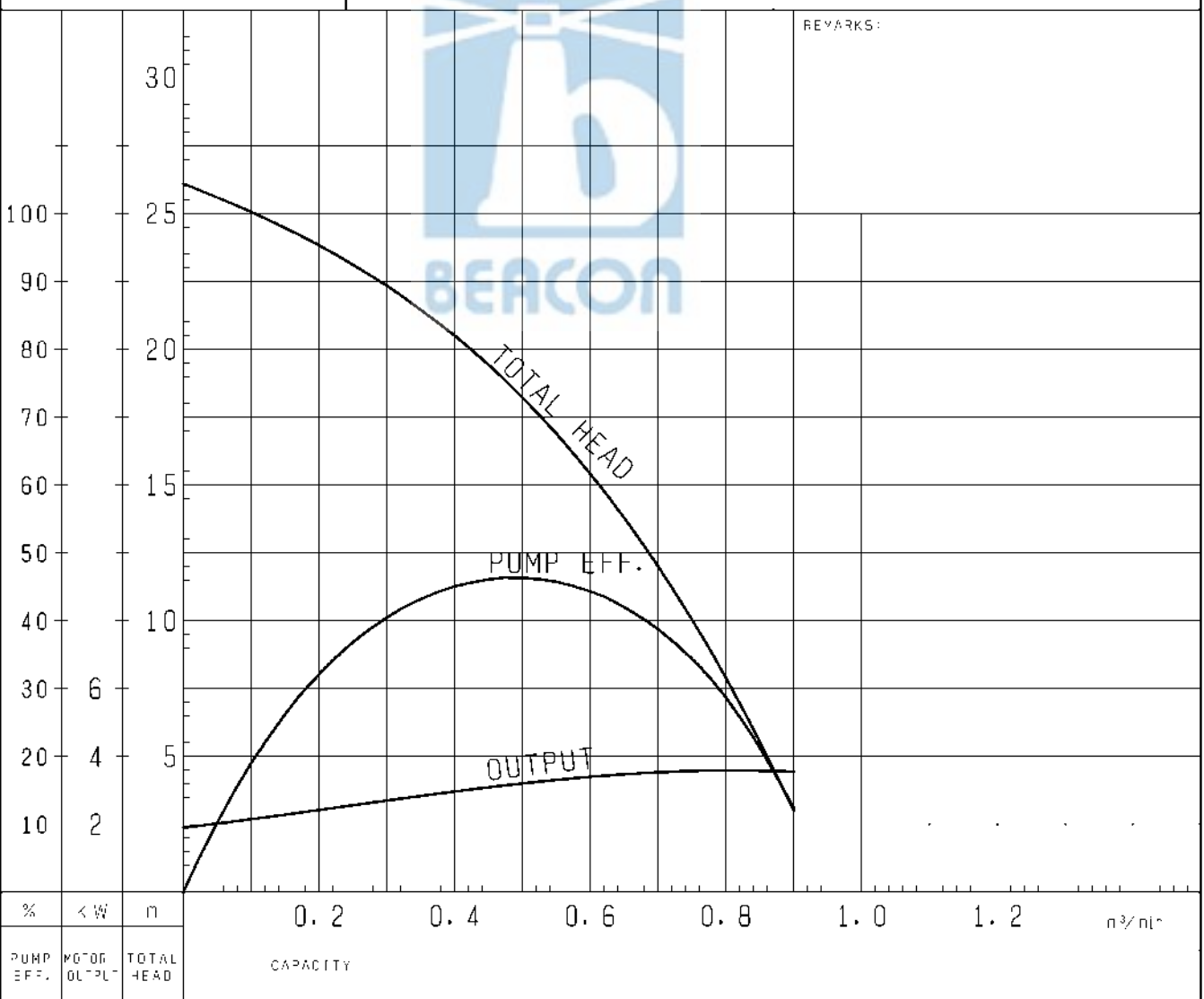
PUMP PERFORMANCE CURVES

TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 80TM23.7 -51 80TMA23.7 -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	20.5 m	m
CAPACITY	0.4 m ³ /min	m ³ /min
MOTOR OUTPUT	3.7 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	

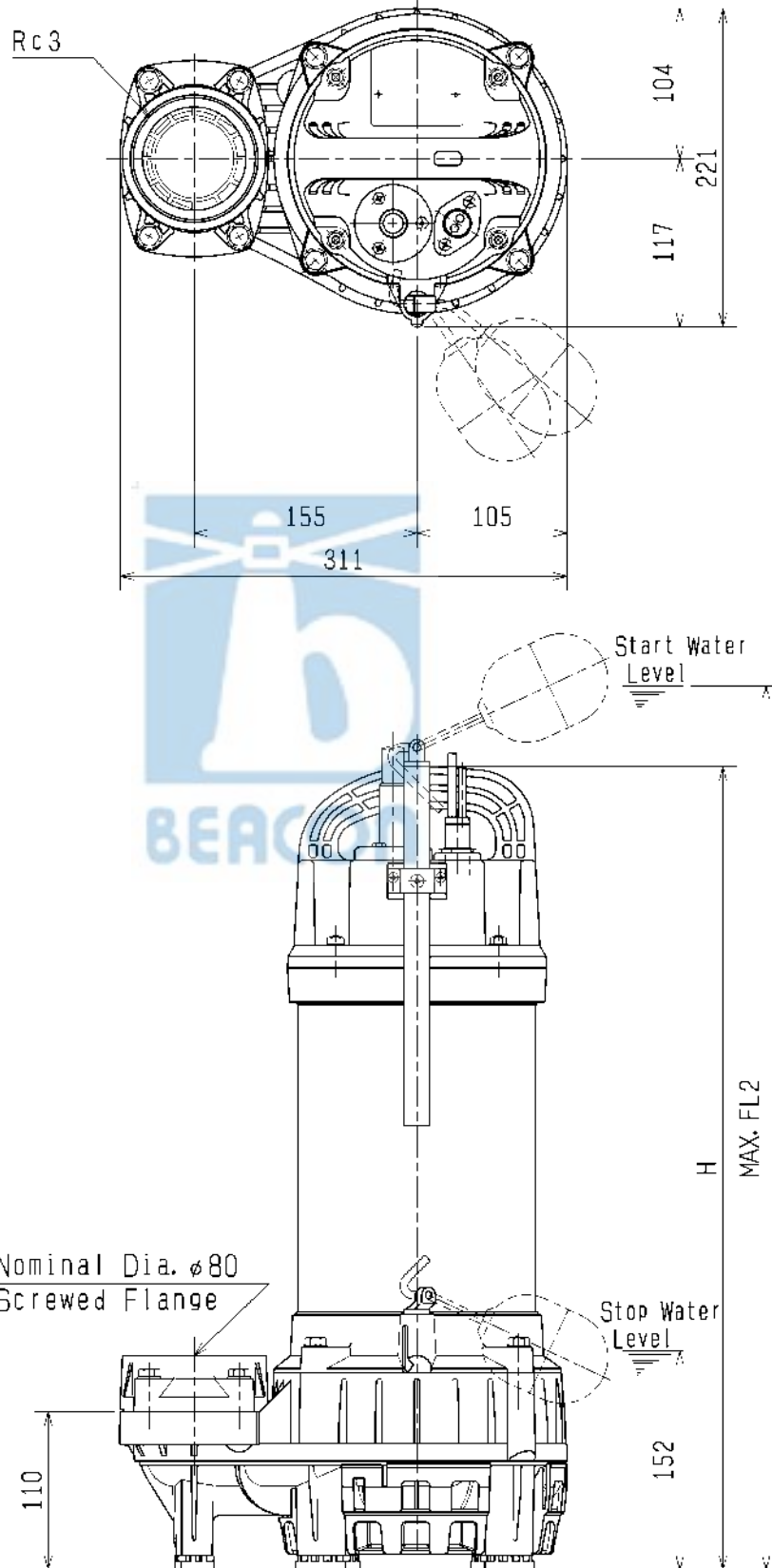


TSURUMI MFG. CO., LTD.

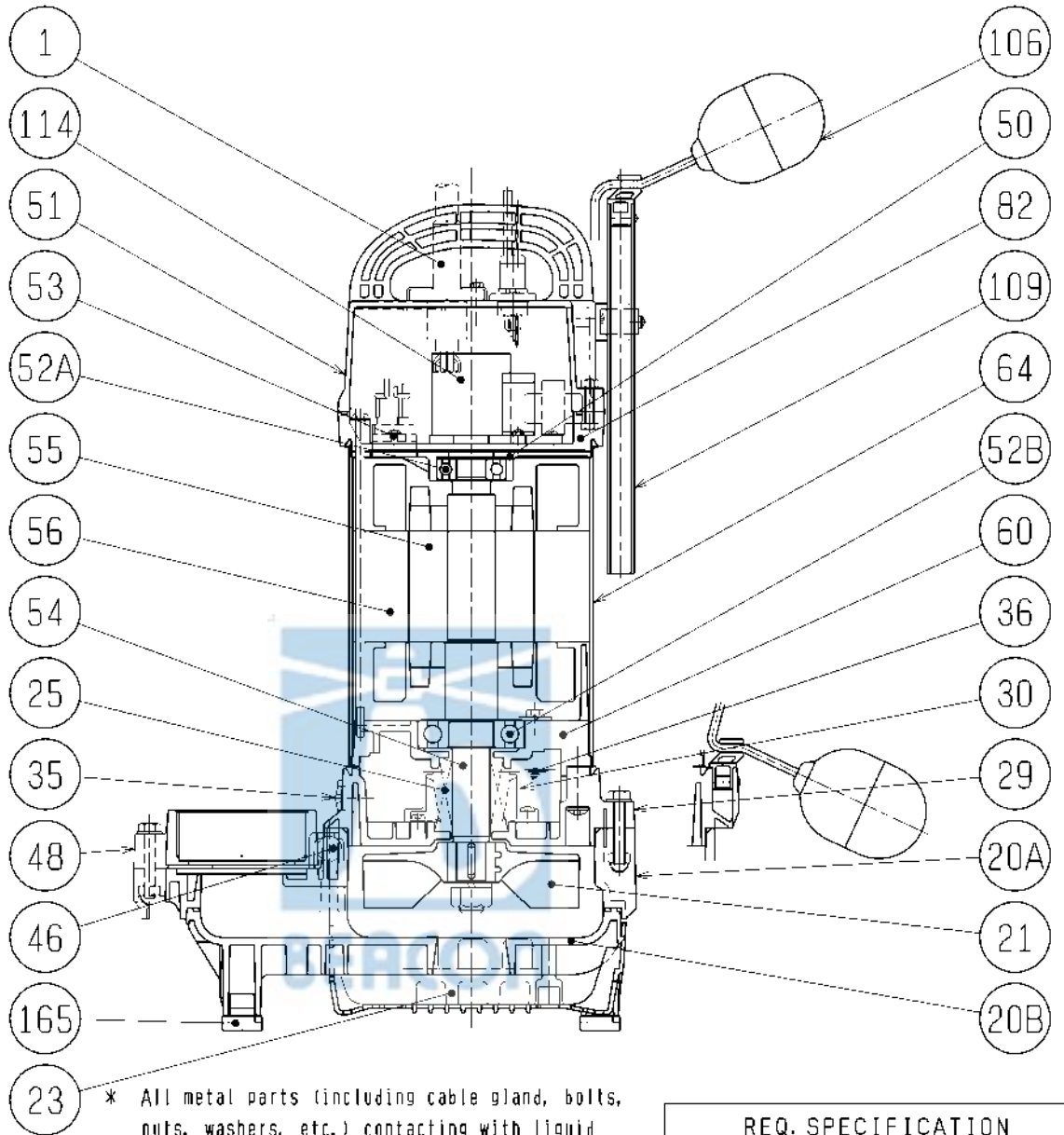
DIMENSION DRAWING		No.	No.	A-19481-1
TYPE	Sea Water Submersible Titanium Seawater Pump (Automatic)	MODEL	80TMA22.2 -51/61 80TMA23.7 -51/61	

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	



* 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.
H-25A	H-25AT	*2 the wetted part

No.	DESCRIPTION	QTY	MATERIAL / NOTE	No.	DESCRIPTION	QTY	MATERIAL / NOTE
1	Cabtyre Cable	1	PVC Sheath	52B	Lower Bearing	1	6306ZZC3
20A	Upper Pump Casing	*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 Unit	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	6204ZZC3				