

# WUO-F

KAWAMOTO SUBMERSIBLE PUMP

2 POLES / 50 Hz

SIZE 40 ~ 80 MM.



VORTEX IMPELLER



# APPLICATIONS AND FEATURES

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## ■ APPLICATIONS

- For drainage of sewage and wastewater, and for drainage of septic tank pump.

## ■ FEATURES

- Light weight and easy-to-handle submersible sewage pump.
- Stainless steel made frame motor and plastic parts increase operating life.
- Use glass fiber reinforced plastic for the impeller and casing, and equipped with a motor with built-in auto-cut having a large starting torque for stable operation.
- Vortex type and excellent performance to pass foreign objects.
- Can be combined with a plastic pedestal support. (special accessory)
- Starting/stopping water levels are adjustable in L and LN types.

# STANDARD SPECIFICATIONS

Description		Model : WUO-F
Applicable Liquid		Waste water, filthy water and other miscellaneous dirty water
Liquid Temperature		0~40 °C
pH		5~9
Main Pump	Casing	Glass fiber reinforced resin
	Impeller	Glass fiber reinforced resin
	Shaft	Stainless Steel (SUS403)
Motor	Speed	3000 rpm
	Protection	IP68, Class F
Construction	Impeller	Vortex type
	Shaft Seal	Double mechanical seal Pump : Sic x Sic Motor : Ceramics x Carbon
	Motor Bearing	Sealed ball bearing
Maximum Submergence		0.15~0.75 kW : 5 m. 1.5~3.7 kW : 8 m.

# OPTIONAL SPECIFICATIONS

Description		Model : WUO-F
Applicable Liquid		Waste water, filthy water and other miscellaneous dirty water
Liquid Temperature		0~60 °C
pH		5~9
Main Pump	Casing	Glass fiber reinforced resin
	Impeller	Glass fiber reinforced resin
	Shaft	Stainless Steel (SUS403)
Motor	Speed	3000 rpm
	Protection	IP68, Class F
Construction	Impeller	Vortex type
	Shaft Seal Oil	Double mechanical seal Pump : Sic x Sic Motor : Ceramics x Carbon White oil
	Motor Bearing	Sealed ball bearing
Cable length(m)		10m, 20m, 30m, 40m

## SOLID PASSAGE

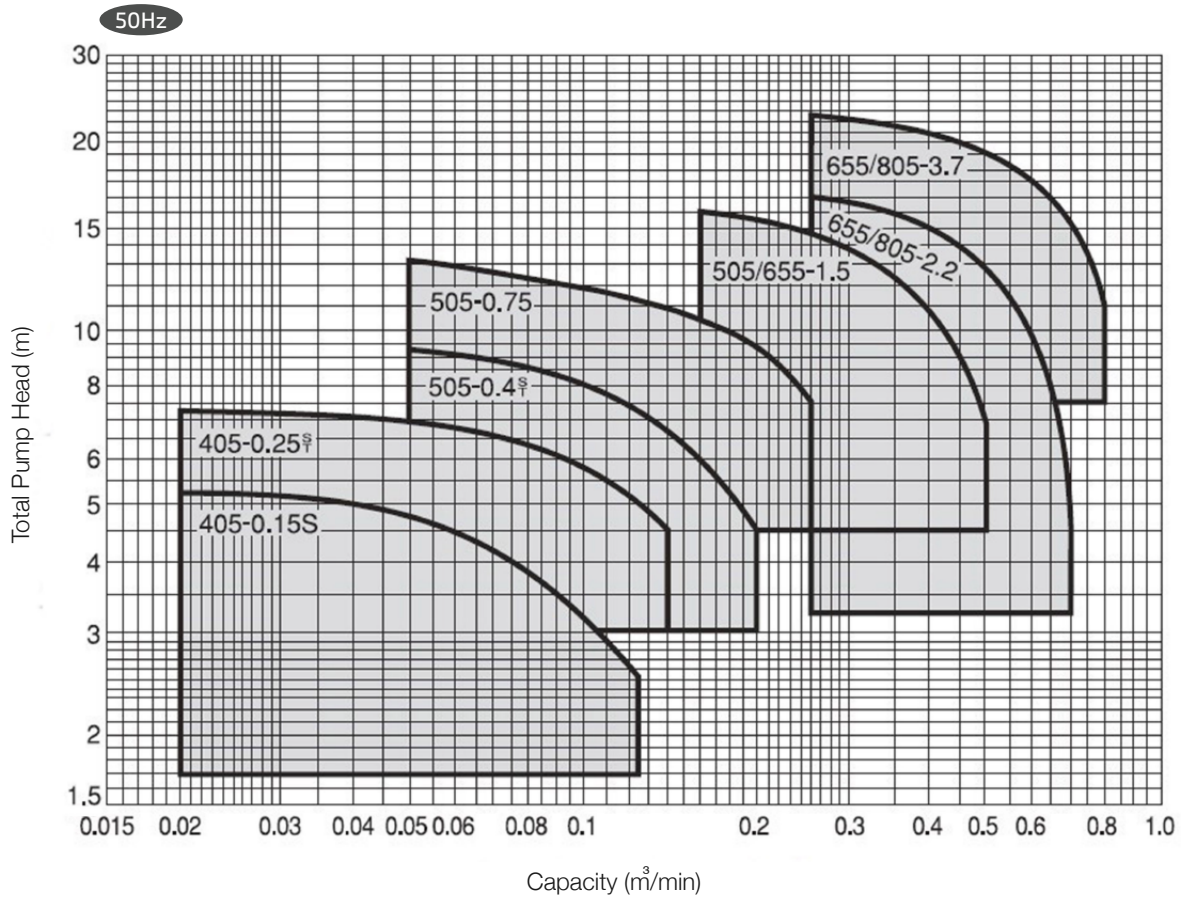
Pump Bore (mm)	Solid diameter (mm)	Clothes
40	35	-
50	35	-
65	40	-
80	40	-

## CABLE

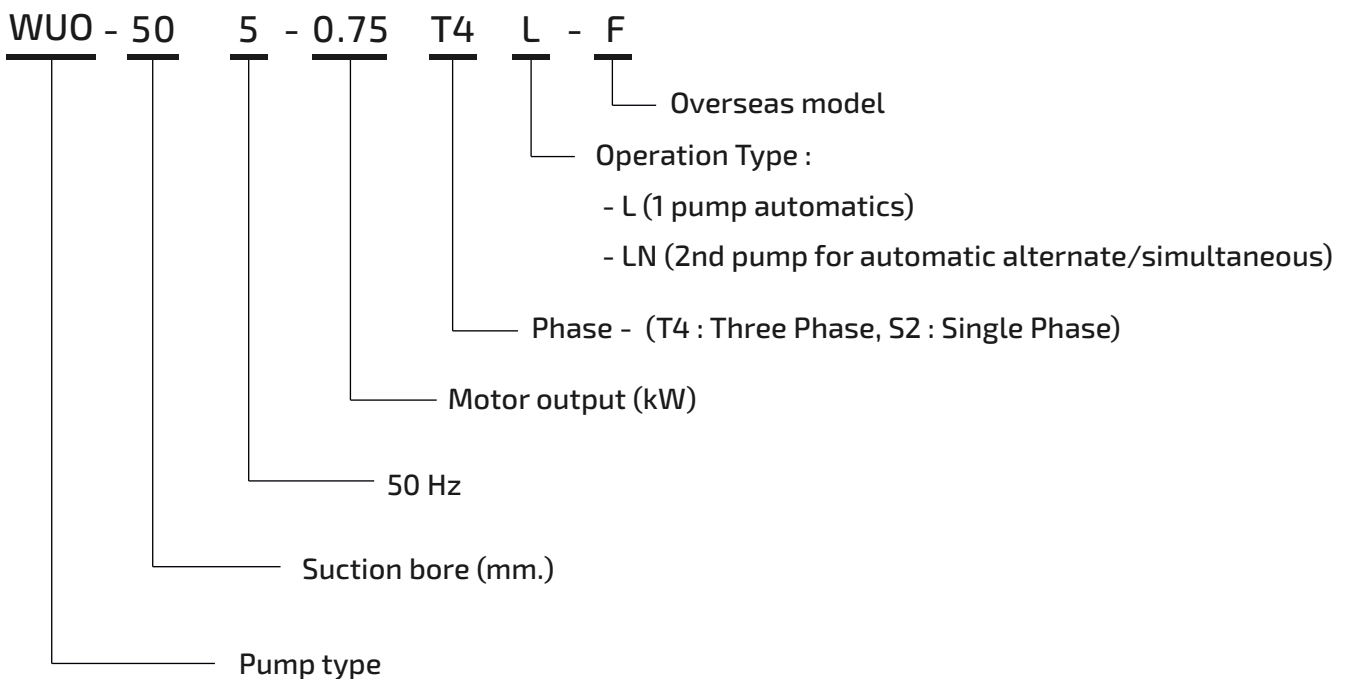
Output (kW)	Phase	Size (mm <sup>2</sup> )	Core	Outer diameter (mm)	Length (m)
0.15	1	0.75	3	9.2	6
0.25	1	0.75	3	9.2	6
0.25	3	0.75	4	9.9	6
0.4	1	0.75	3	9.2	6
0.4	3	0.75	4	9.9	6
0.75	3	1.25	4	11	6
1.5	3	1.25	4	11	10
2.2	3	1.25	4	11	10
3.7	3	2	4	11.7	10

Cable Material : 600V insulating (VCT) **2**

# PERFORMANCE CHART



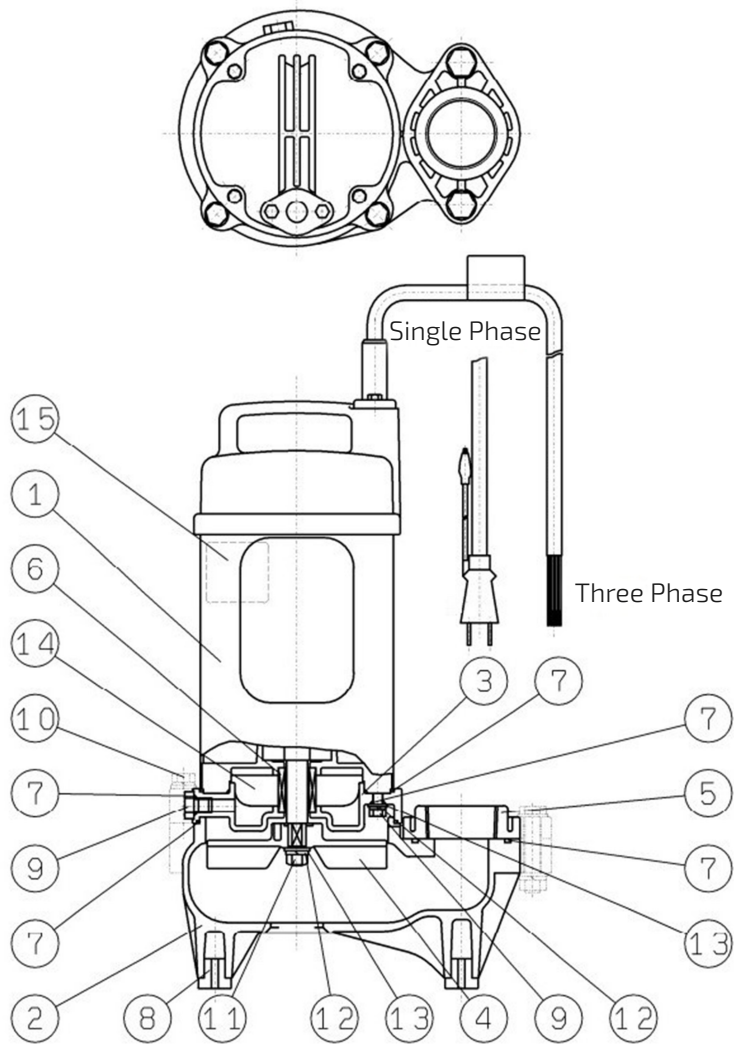
# MODEL CODE



# SPECIFICATION TABLE - WUO-F

No.	Bore (mm)	Model	Motor (kW)	Performance			
				Capacity (m <sup>3</sup> /min)	Total Head (m)	Capacity (m <sup>3</sup> /min)	Total Head (m)
1	40	WUO-405-0.15S2-F	0.15	0.02	5.2	0.125	2.5
2		WUO-405-0.25S2-F	0.25	0.02	7.2	0.14	4.5
3		WUO-405-0.25T4-F	0.25	0.02	7.2	0.14	4.5
4	50	WUO-505-0.4S2-F	0.4	0.05	9.2	0.2	4.5
5		WUO-505-0.4T4-F	0.4	0.05	9.2	0.2	4.5
6		WUO-505-0.75S2-F	0.75	0.05	13.2	0.25	7
7		WUO-505-0.75T4-F	0.75	0.05	13.2	0.25	7
8		WUO-505-1.5T4-F	1.5	0.16	16	0.32	13.2
9	65	WUO-655-1.5T4-F	1.5	0.25	14.5	0.5	6.8
10		WUO-655-2.2T4-F	2.2	0.25	17	0.5	12.8
11		WUO-655-3.7T4-F	3.7	0.25	23.5	0.5	20.2
12	80	WUO-805-2.2T4-F	2.2	0.36	15.5	0.7	4.8
13		WUO-805-3.7T4-F	3.7	0.4	21.5	0.8	11.2
14	40	WUO-405-0.15S2L(LN)-F	0.15	0.02	5.2	0.125	2.5
15		WUO-405-0.25S2L(LN)-F	0.25	0.02	7.2	0.14	4.5
16		WUO-405-0.25T4L(LN)-F	0.25	0.02	7.2	0.14	4.5
17	50	WUO-505-0.4S2L(LN)-F	0.4	0.05	9.2	0.2	4.5
18		WUO-505-0.4T4L(LN)-F	0.4	0.05	9.2	0.2	4.5
19		WUO-505-0.75S2L(LN)-F	0.75	0.05	13.2	0.25	7
20		WUO-505-0.75T4L(LN)-F	0.75	0.05	13.2	0.25	7
21		WUO-505-1.5T4L(LN)-F	1.5	0.16	16	0.32	13.2
22	65	WUO-655-1.5T4L(LN)-F	1.5	0.25	14.5	0.5	6.8
23		WUO-655-2.2T4L(LN)-F	2.2	0.25	17	0.5	12.8
24		WUO-655-3.7T4L(LN)-F	3.7	0.25	23.5	0.5	20.2
25	80	WUO-805-2.2T4L(LN)-F	2.2	0.36	15.5	0.7	4.8
26		WUO-805-3.7T4L(LN)-F	3.7	0.4	21.5	0.8	11.2

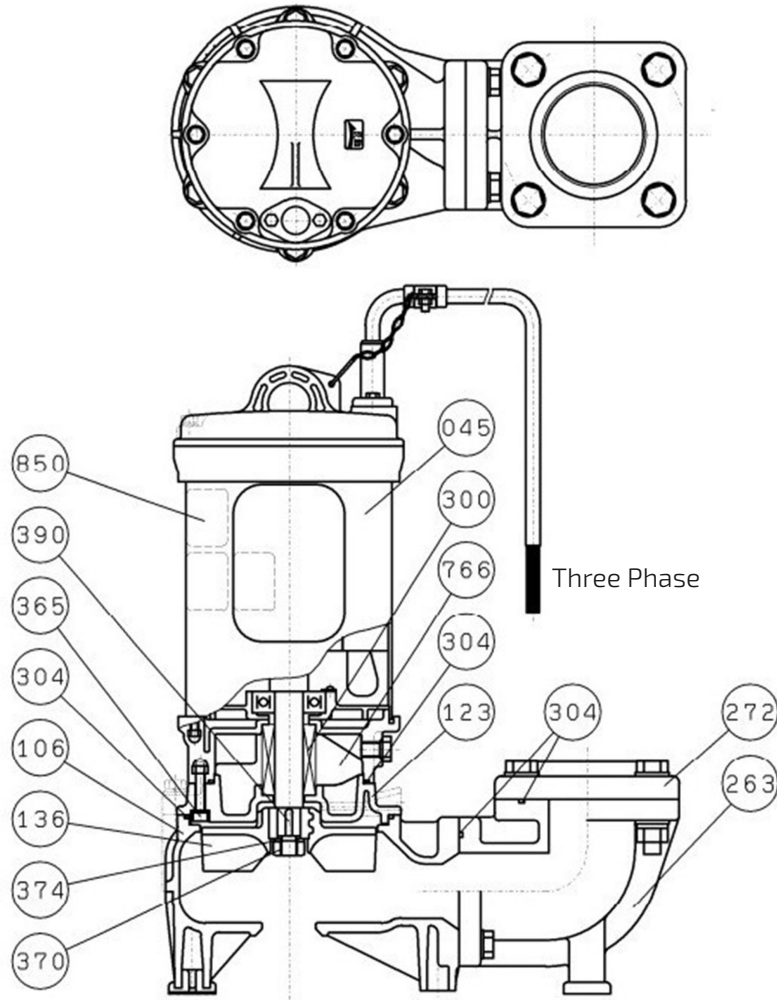
# SECTION VIEW - LESS THAN 0.75kW



No.	Part Name	Material	Note
1	Motor	-	Class F
2	Casing	Resin	
3	Casing cover	Resin	
4	Impeller	Resin	
5	Rhombic flange	Resin	
6	Mechanical seal	-	
7	O-Ring	Rubber (NBR)	
8	Packing	Rubber (NR)	

No.	Part Name	Material	Note
9	Bolt	SUS304	
10	Bolt with captive washer	SUS304	
11	Nut	SUS304	
12	Spring washers	SUS304	
13	Plain washers	SUS304	
14	Turbine oil	VG32	
15	Caution label		

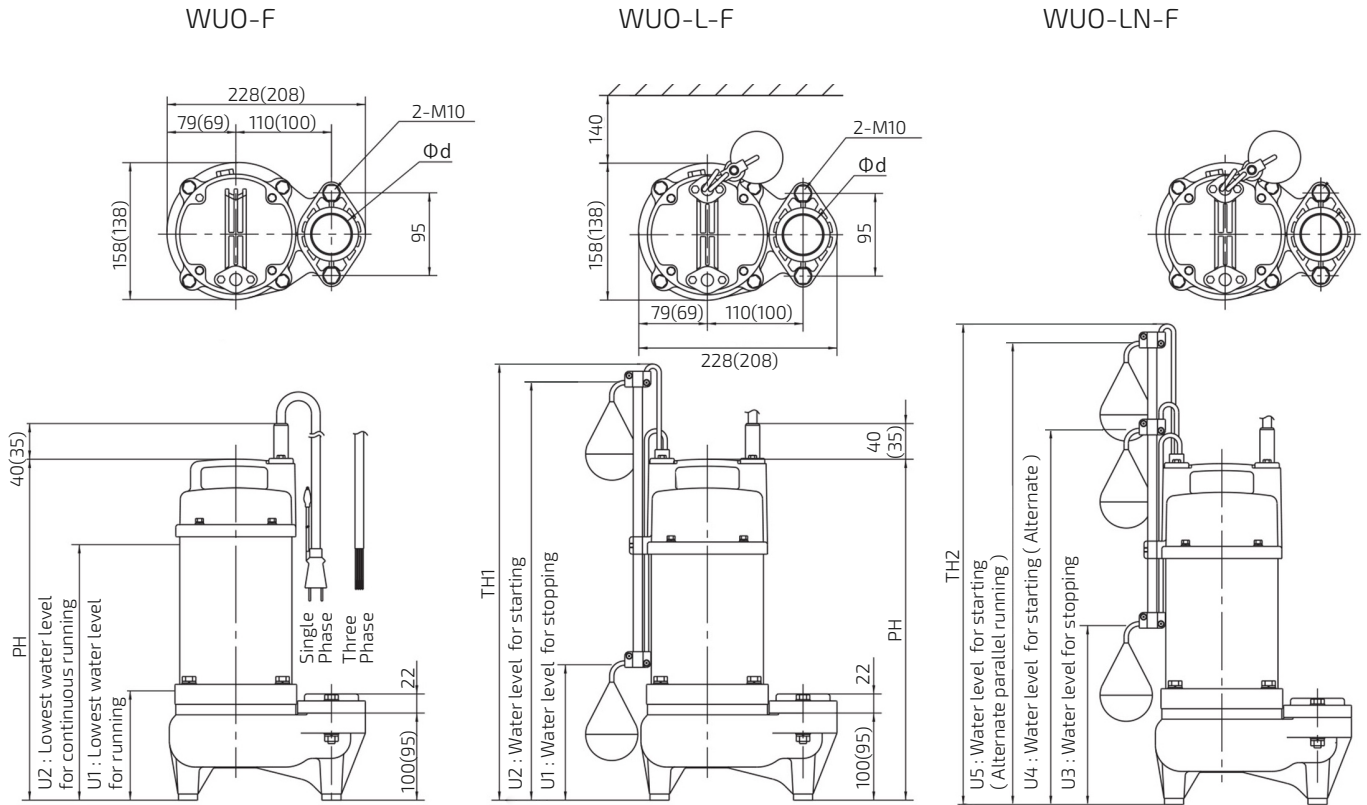
## SECTION VIEW - MORE THAN 1.5kW



No.	Part Name	Material	Note
45	Motor	-	Class F
106	Casing	Resin	
123	Casing cover	Resin	
136	Impeller	Resin	
263	Discharge elbow	Resin	
272	Square flange	Resin	
300	Mechanical seal	-	

No.	Part Name	Material	Note
304	O-Ring	Rubber (NBR)	
365	Bolt	SUS304	JIS G 4303
370	Impeller nut	SUS304	JIS G 4303
374	Gear washer	SUS304-CS	JIS G 4303
390	Key	SUS403	JIS G 4303
766	Turbine oil	VG32	
850	Caution label	-	

# PUMP DIMENSION - FLANGE TYPE LESS THAN 0.75kW

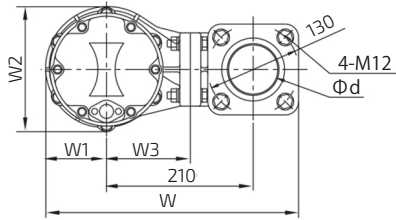


Operation Method	Discharge Bore (mm)	Model	Motor (kW)	Pump			Water Level					Weight (kg)
				PH	TH1	TH2	U1	U2	U3	U4	U5	
Non Automatic	40	WUO-405-0.15S2-F	0.15	360	-	-	140	256	-	-	-	5.5
		WUO-405-0.25S2-F	0.25	370	-	-	140	256	-	-	-	6
		WUO-405-0.25T4-F	0.25	360	-	-	140	240	-	-	-	5.1
	50	WUO-505-0.45S-F	0.4	385	-	-	140	270	-	-	-	9.2
		WUO-505-0.4T4-F	0.4	370	-	-	140	250	-	-	-	8
		WUO-505-0.75S2-F	0.75	390	-	-	140	270	-	-	-	9.5
		WUO-505-0.75T4-F	0.75	390	-	-	140	270	-	-	-	9.5
Alternate, Alternate /Parallel	40	WUO-405-0.15S2L(LN)-F	0.15	414	550	585	190	512	240	462	562	5.9(6.0)
		WUO-405-0.25S2L(LN)-F	0.25	424	550	585	190	512	240	462	562	6.4(6.5)
		WUO-405-0.25T4L(LN)-F	0.25	414	534	569	174	496	224	446	546	5.5(5.6)
	50	WUO-505-0.452L(LN)-F	0.4	405	535	570	175	500	225	450	550	9.4(9.5)
		WUO-505-0.4T4L(LN)-F	0.4	390	515	550	155	480	205	430	530	8.2(8.3)
		WUO-505-0.75S2L(LN)-F	0.75	429	535	570	175	500	225	450	550	11.5(11.6)
		WUO-505-0.75T4L(LN)-F	0.75	410	535	570	175	500	225	450	550	9.7(9.8)

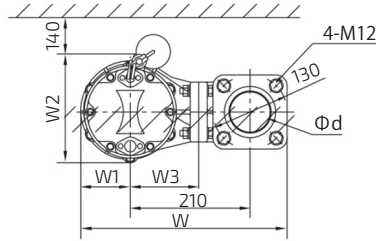


# PUMP DIMENSION - FLANGE TYPE MORE THAN 1.5kW

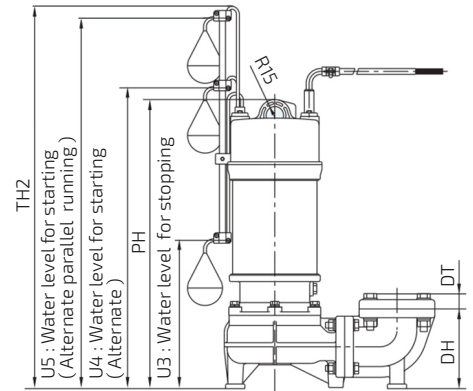
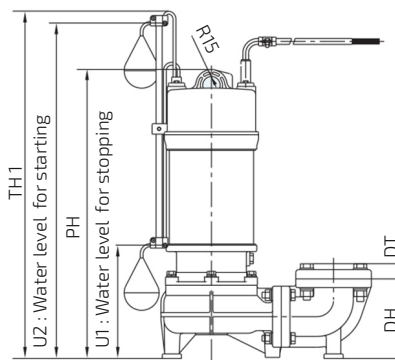
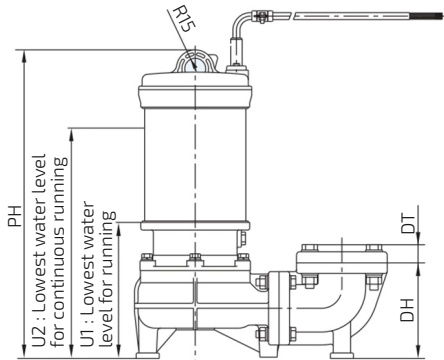
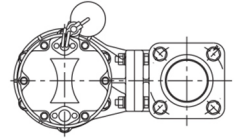
WUO-F



WUO-L-F

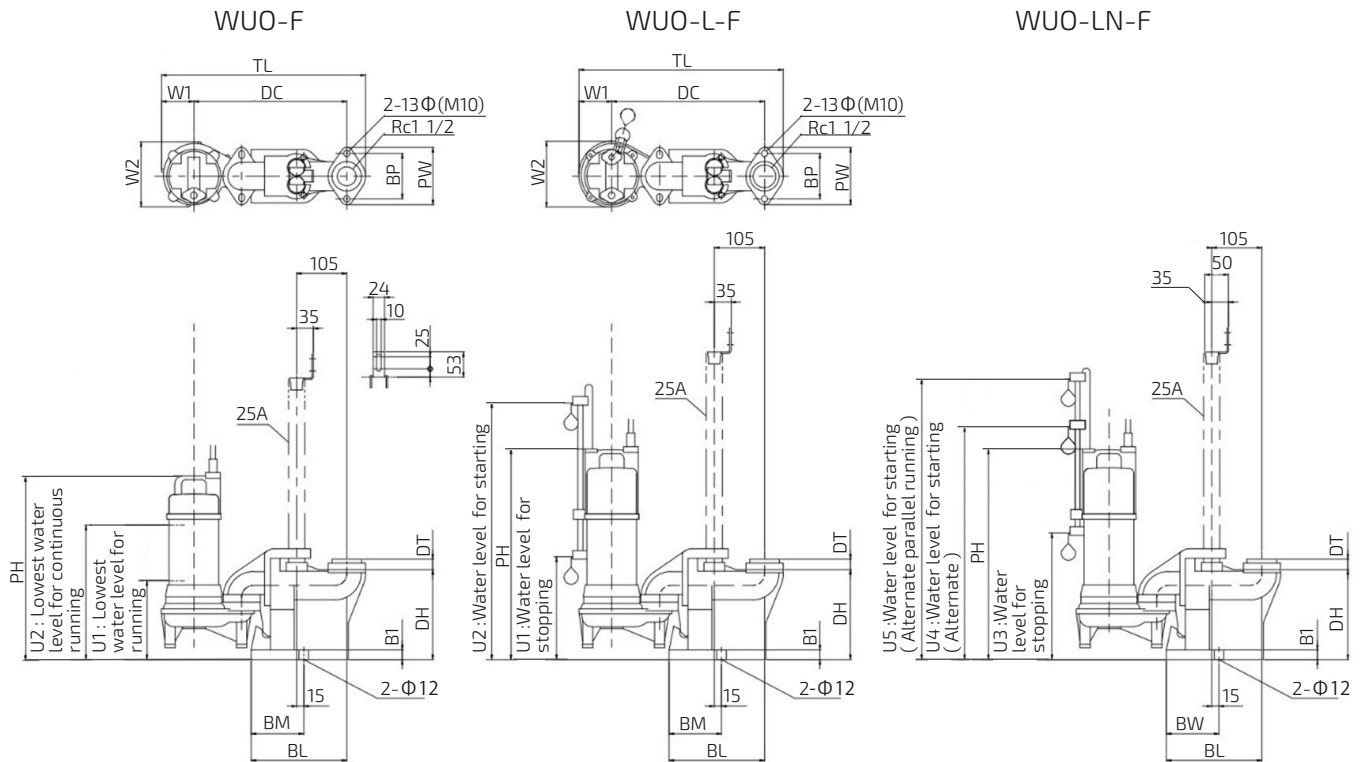


WUO-LN-F



Operation Method	Discharge Bore (mm)	Model	Motor (kW)	Power Source (V)	Pump									Water Level					Weight (kg)
					PH	TH1	TH2	DH	W	W1	W2	W3	DT	U1	U2	U3	U4	U5	
Non Automatic	50	WUO-505-1.5T4-F	1.5	200	442	600	660	137	362	87	179	120	26	195	330	-	-	-	15.5
	65	WUO-655-1.5T4-F	1.5	200	442	600	660	137	362	87	179	120	26	195	330	-	-	-	15.5
		WUO-655-2.2T4-F	2.2	200	514	750	810	160	372	97	216	130	26	195	400	-	-	-	20
		WUO-655-3.7T4-F	3.7	200	551	750	810	160	372	97	216	130	26	195	440	-	-	-	25.8
	80	WUO-805-2.2T4-F	2.2	200	514	750	810	160	372	97	216	130	30	195	400	-	-	-	20
		WUO-805-3.7T4-F	3.7	200	551	750	810	160	372	97	216	130	30	195	440	-	-	-	25.8
Alternate, Alternate /Parallel	50	WUO-505-1.5T4L(LN)-F	1.5	200	497	600	660	137	362	87	191	120	26	195	577	255	517	637	16.5
	65	WUO-655-1.5T4L(LN)-F	1.5	200	497	600	660	137	362	87	191	120	26	195	577	255	517	637	16.5
		WUO-655-2.2T4L(LN)-F	2.2	200	549	750	810	160	372	97	216	130	26	195	727	255	647	787	21
		WUO-655-3.7T4L(LN)-F	3.7	200	586	750	810	160	372	97	216	130	26	195	727	255	647	787	26.8
	80	WUO-805-2.2T4L(LN)-F	2.2	200	549	750	810	160	372	97	216	130	30	195	727	255	647	787	21
		WUO-805-3.7T4L(LN)-F	3.7	200	586	750	810	160	372	97	216	130	30	195	727	255	647	787	26.8

# PUMP DIMENSION - WITH Q.D.C TYPE LESS THAN 0.75kW

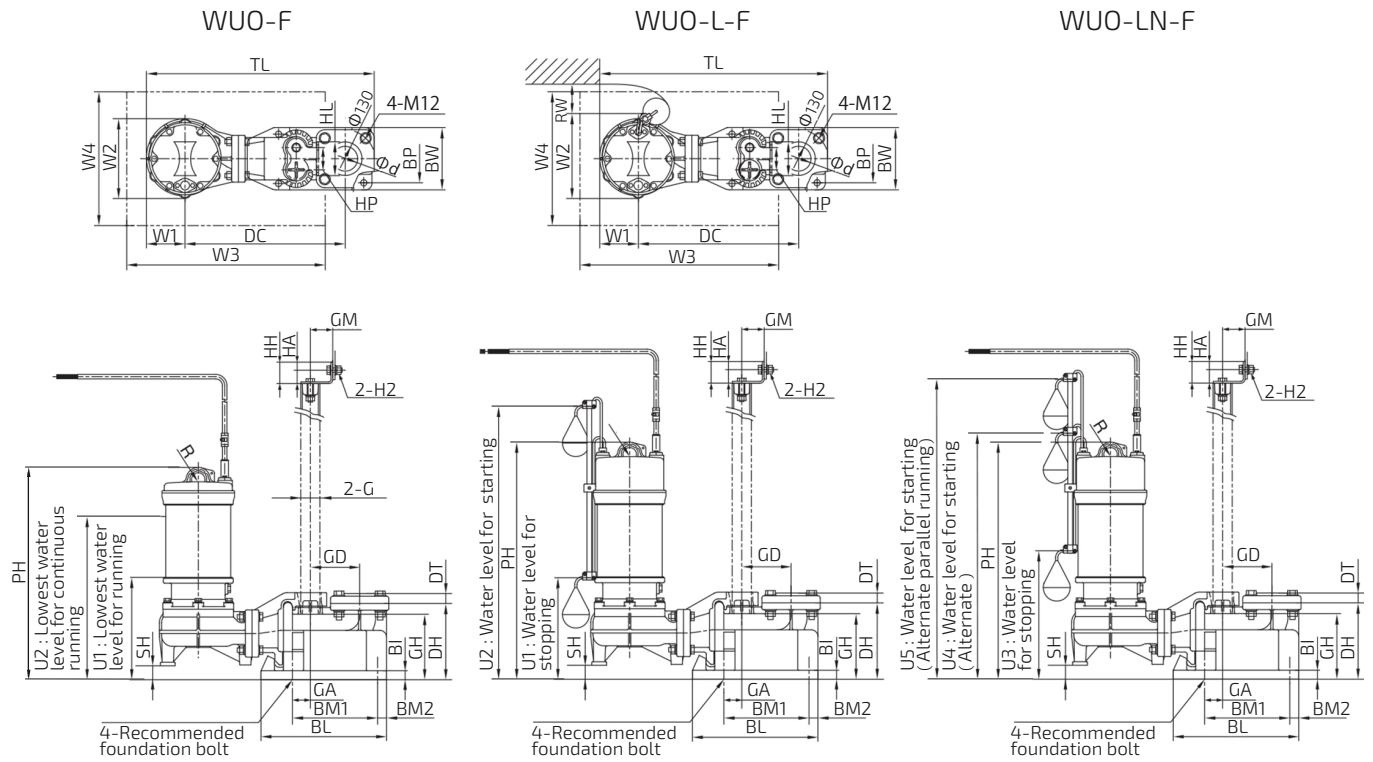


Discharge Bore (mm)	Model	Motor (kW)	Pump					Water Level					Weight (kg)
			PH	DC	TL	W1	W2	U1	U2	U3	U4	U5	
40	WUO-405-0.15S2-F	0.15	380	320	428	69	138	160	276	-	-	-	5.5
	WUO-405-0.25S2-F	0.25	390	320	428	69	138	160	276	-	-	-	6.0
	WUO-405-0.25T4-F	0.25	380	320	428	69	138	160	260	-	-	-	5.1
50	WUO-505-0.4S2-F	0.4	405	330	448	79	158	160	290	-	-	-	9.2
	WUO-505-0.4T4-F	0.4	390	330	448	79	158	160	270	-	-	-	8.0
	WUO-505-0.75S2-F	0.75	410	330	448	79	158	160	290	-	-	-	11.3
40	WUO-505-0.75T4-F	0.75	410	330	448	79	158	160	290	-	-	-	9.5
	WUO-405-0.15S2L(LN)-F	0.15	434	320	428	69	138	210	532	260	482	582	5.9/6.0
	WUO-405-0.25S2L(LN)-F	0.25	444	320	428	69	138	210	532	260	482	582	6.4/6.5
50	WUO-405-0.25T4L(LN)-F	0.25	434	320	428	69	138	194	516	244	468	562	5.5/5.6
	WUO-505-0.4S2L(LN)-F	0.4	425	330	448	79	158	195	520	245	470	570	9.4/9.5
	WUO-505-0.4T4L(LN)-F	0.4	410	330	448	79	158	175	500	225	450	550	8.2/8.3
	WUO-505-0.75S2L(LN)-F	0.75	449	330	448	79	158	195	520	245	470	570	11.5/11.6
	WUO-505-0.75T4L(LN)-F	0.75	430	330	448	79	158	195	520	245	470	570	9.7/9.8

## PEDESTAL SUPPORT MOUNT

Bore (mm)	Discharge Connection						
	DH	DT	Base Dimension				
			BI	BL	BM	BP	BW
40	188	22	20	200	110	95	120
	188	22	20	200	110	95	120
	188	22	20	200	110	95	120
50	188	22	20	200	110	95	120
	188	22	20	200	110	95	120
	188	22	20	200	110	95	120

# PUMP DIMENSION - WITH Q.D.C TYPE MORE THAN 1.5kW



Discharge Bore (mm)	Model	Motor (kW)	Pump Combination						Water Level					Other		Weight (kg)
			PH	SH	DC	TL	W1	W2	U1	U2	U3	U4	U5	RW	R	
50	WUO-505-1.5T4-F	1.5	473	31	360	512	87	179	226	360	-	-	-	-	15	14.2
65	WUO-655-1.5T4-F	1.5	473	31	360	512	87	179	226	360	-	-	-	-	15	14.2
	WUO-655-2.2T4-F	2.2	540	26	390	552	97	216	221	426	-	-	-	-	15	18.7
	WUO-655-3.7T4-F	3.7	577	26	390	552	97	216	221	466	-	-	-	-	15	24.5
80	WUO-805-2.2T4-F	2.2	540	26	390	552	97	216	221	426	-	-	-	-	15	18.7
	WUO-805-3.7T4-F	3.7	577	26	390	552	97	216	221	466	-	-	-	-	15	24.5
50	WUO-505-1.5T4L(LN)-F	1.5	528	31	360	512	87	191	226	608	286	548	668	140	15	15.0(15.2)
65	WUO-655-1.5T4L(LN)-F	1.5	528	31	360	512	87	191	226	608	286	548	668	140	15	15.0(15.2)
	WUO-655-2.4T4L(LN)-F	2.2	575	26	390	552	97	216	221	753	281	673	813	140	15	19.5(19.7)
	WUO-655-3.7T4L(LN)-F	3.7	612	26	390	552	97	216	221	753	281	673	813	140	15	25.3(25.5)
80	WUO-805-2.2T4L(LN)-F	2.2	575	26	390	552	97	216	221	753	281	673	813	140	15	19.5(19.7)
	WUO-805-3.7T4L(LN)-F	3.7	612	26	390	552	97	216	221	753	281	673	813	140	15	25.3(25.5)

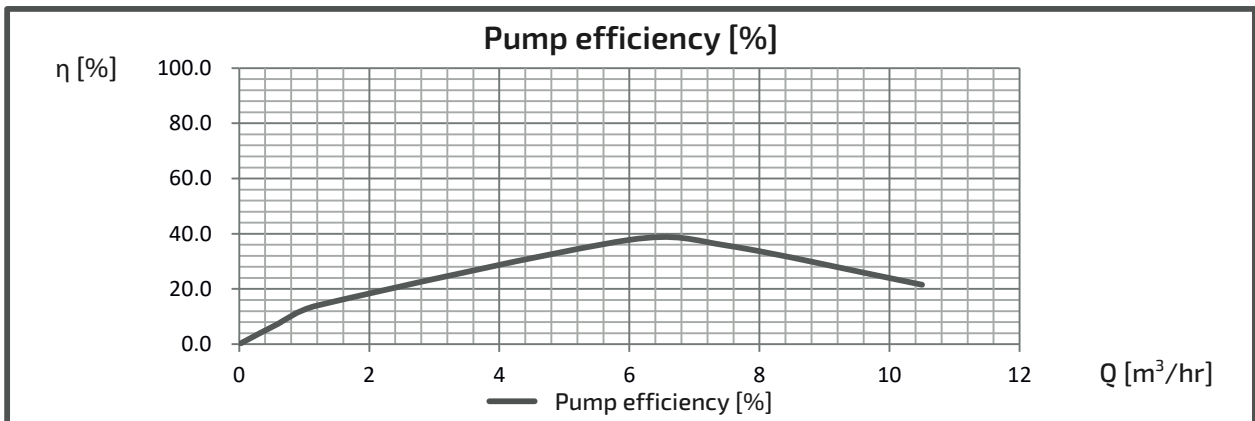
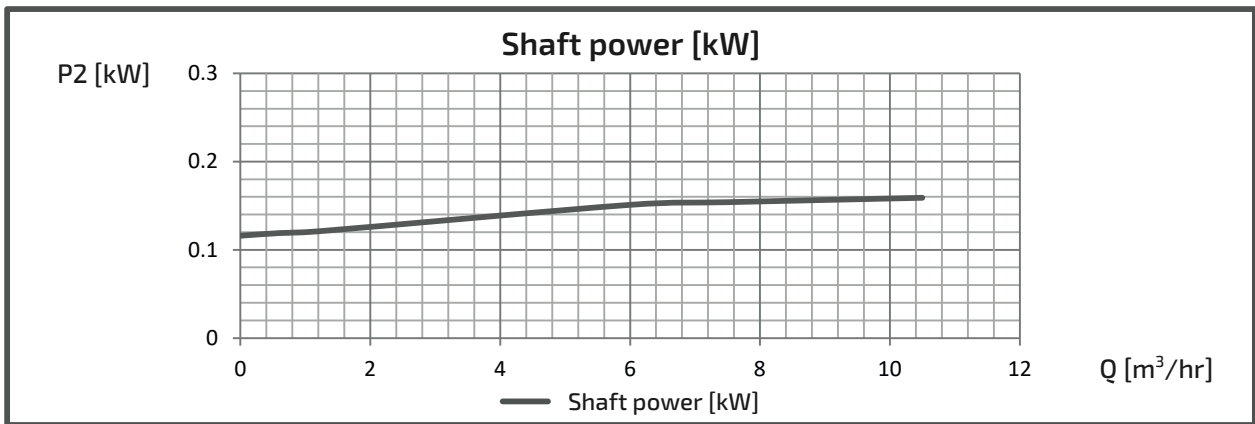
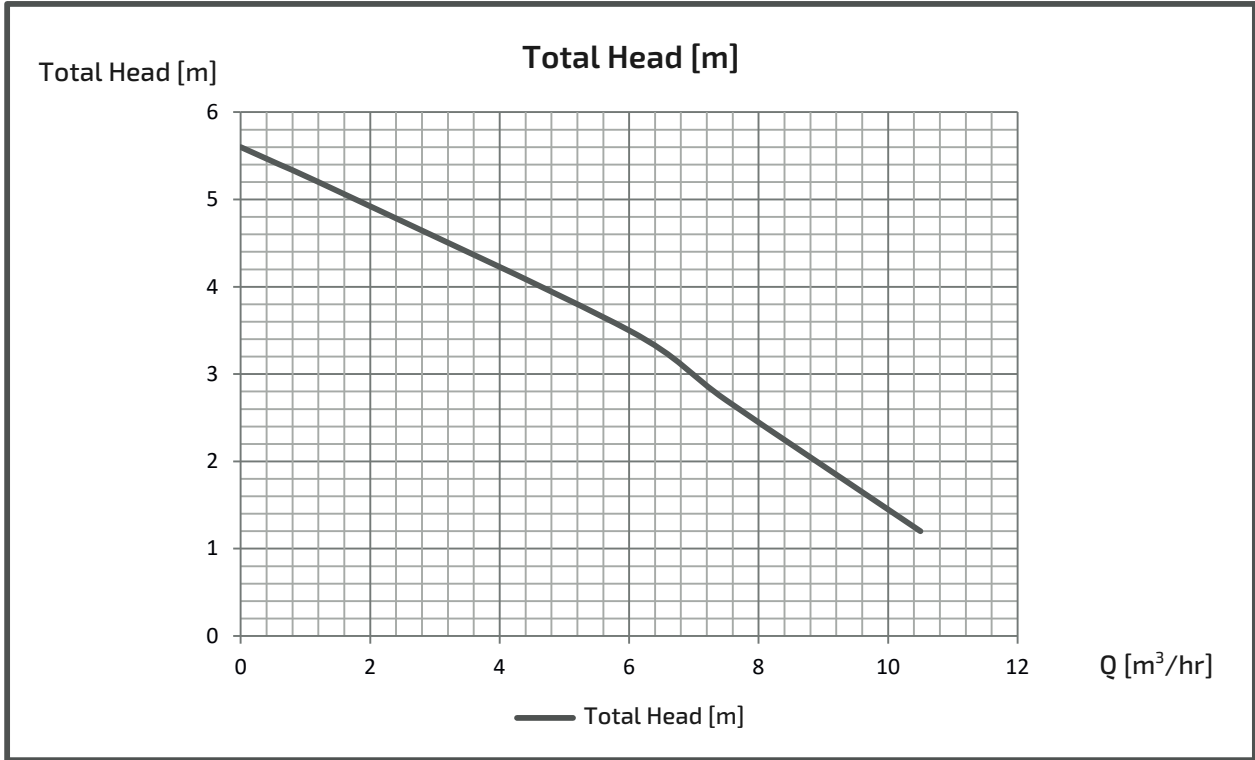
# PEDESTAL SUPPORT MOUNT

Bore (mm)	Discharge Connection							Guide						Hanger					Manhole Cover		Motor (kW)		
	DH	DT	Base Dimension					H1	GH	GA	GD	GP	G	HH	HA	GM	HL	HP	H2	W3		W4	
			BI	BL	BM1	BM2	BP																BW
50	170	22	20	280	190	20	110	140	M12	146	40	110	50	32A	48	30	50	76	50	M10	450	250(300)	-
65	170	26	20	280	190	20	110	140	M12	146	40	110	50	32A	48	30	50	76	50	M10	450	250(300)	1.5
	185	26	25	310	210	25	130	165	M16	161	55	115	60	40A	60	35	60	85	50	M12	500	300(350)	2.2,3.7
80	185	30	25	310	210	25	130	165	M16	161	55	115	60	40A	60	35	60	85	50	M12	500	300(350)	-

# EXPECTED PERFORMANCE CURVE

MODEL : WUO-405-0.15S2-F

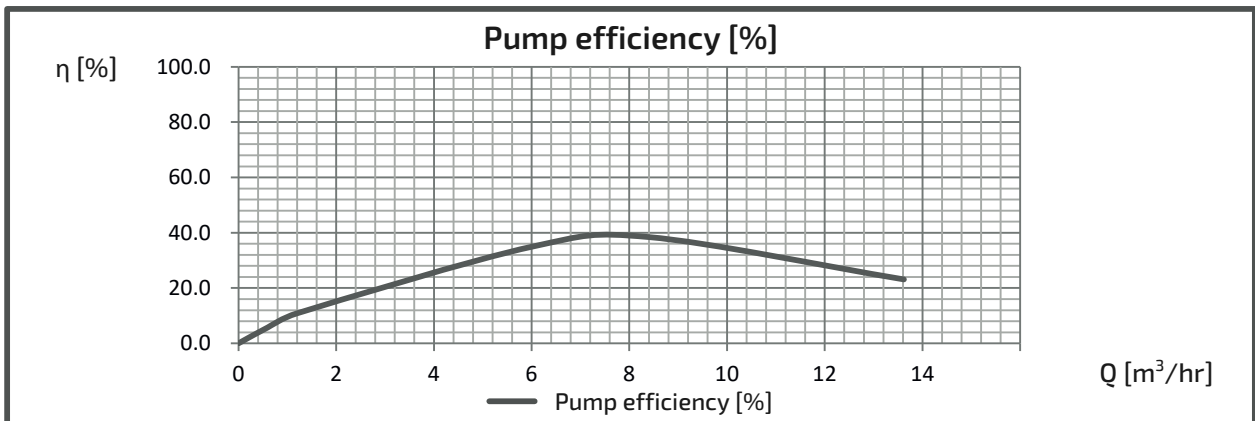
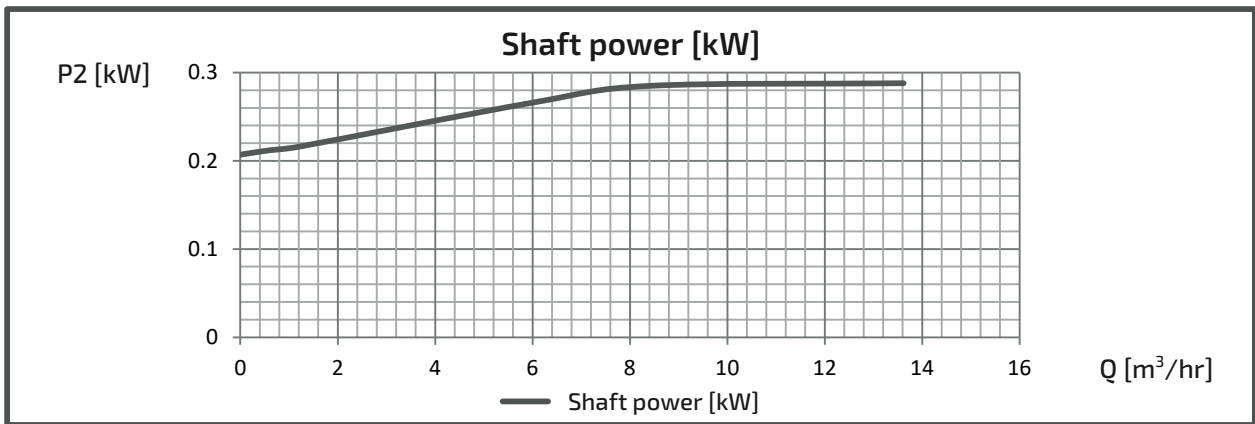
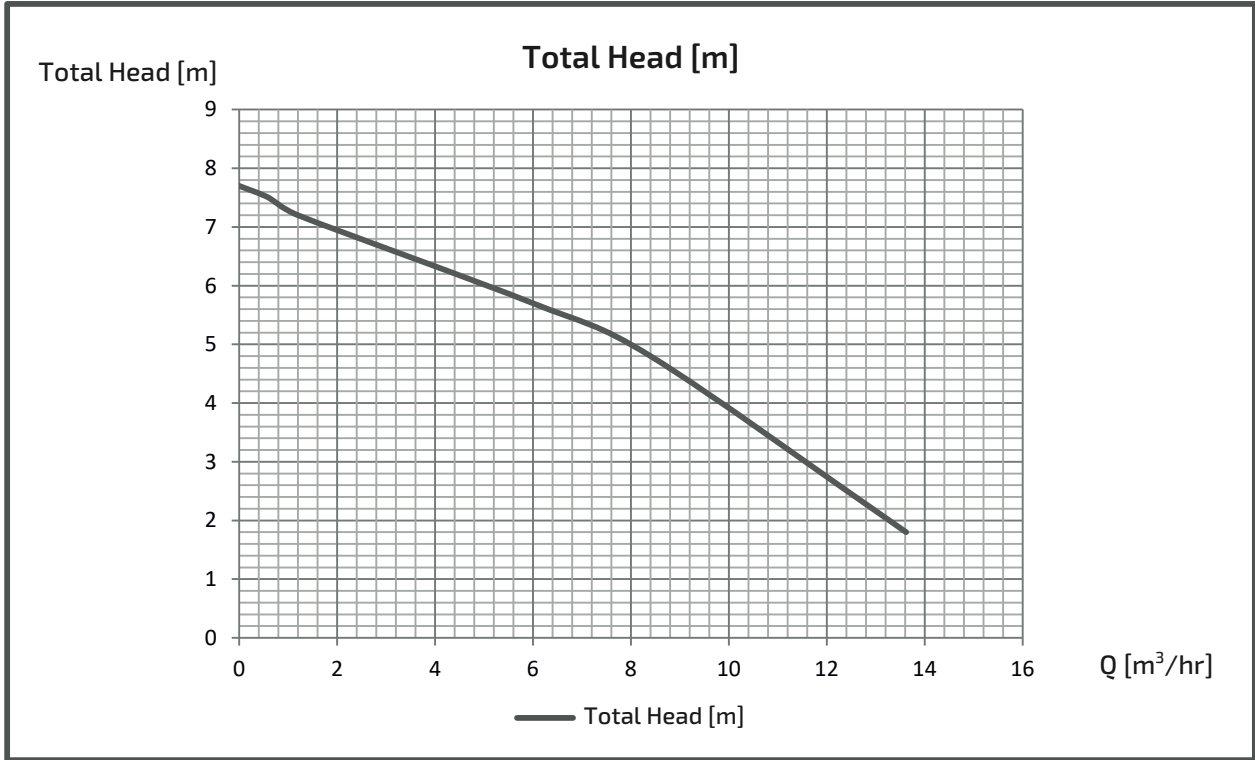
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

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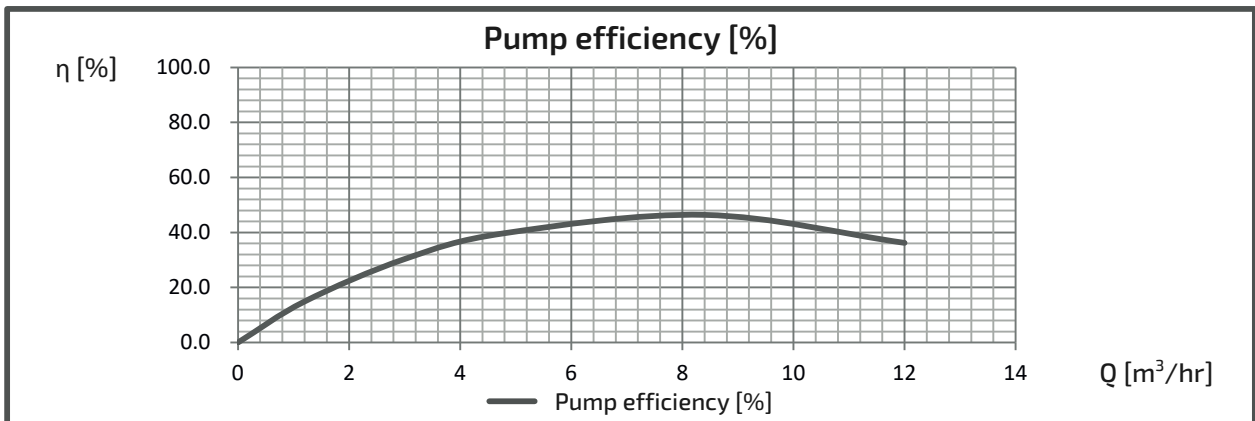
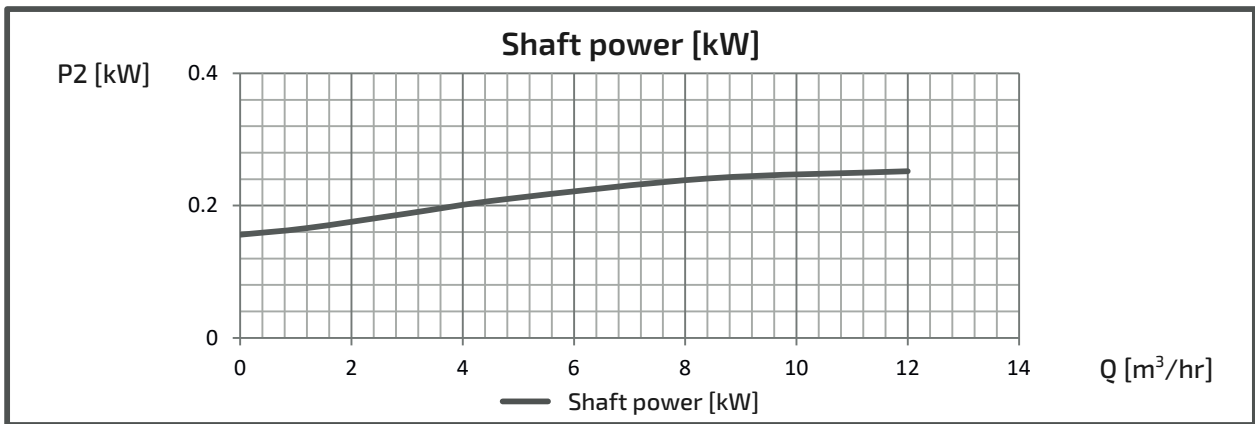
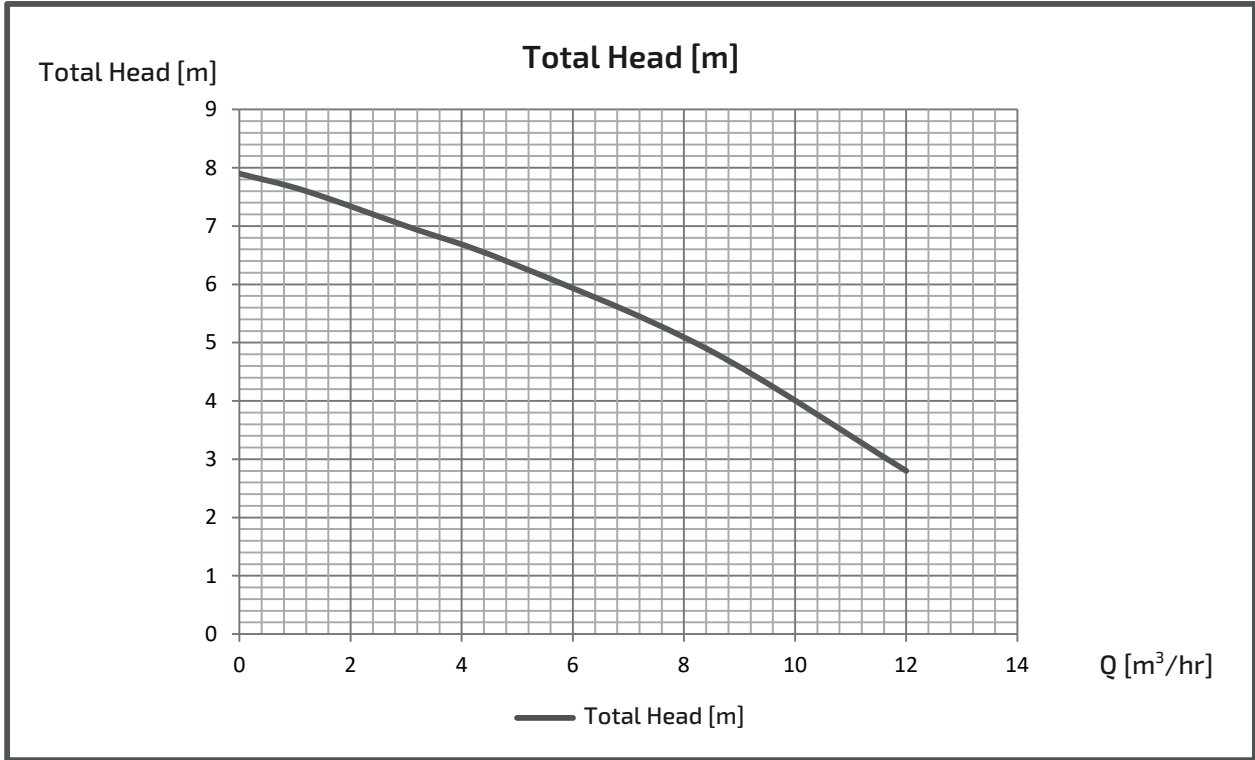
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-405-0.25T4-F

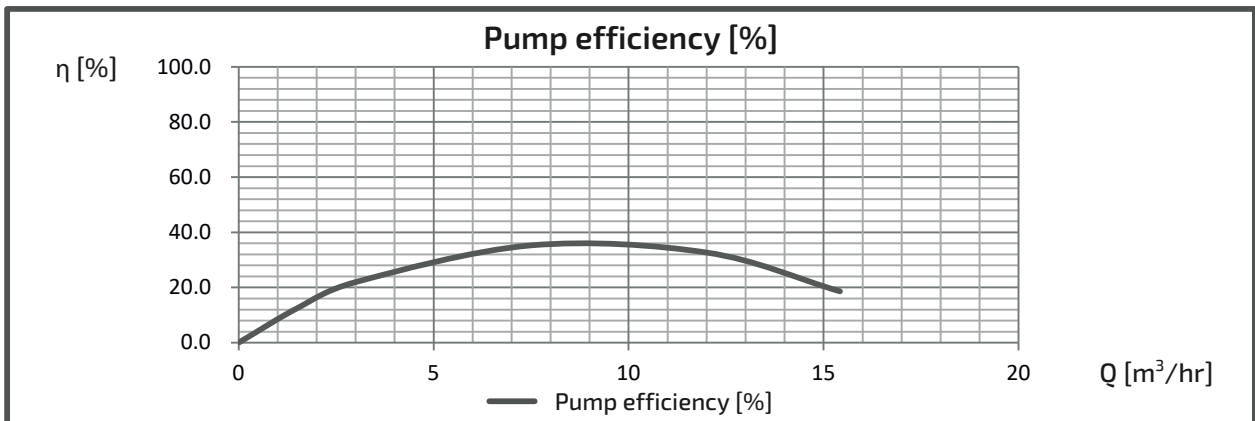
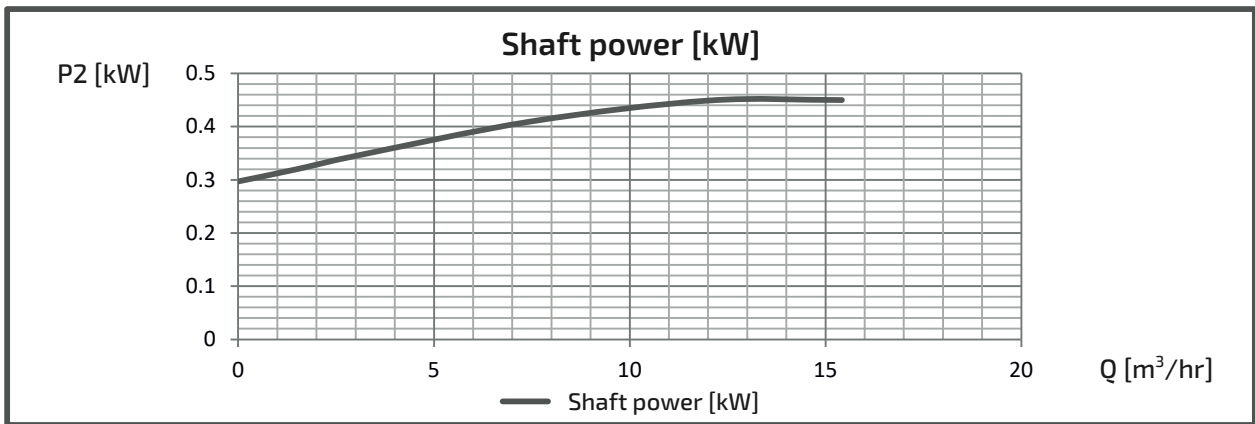
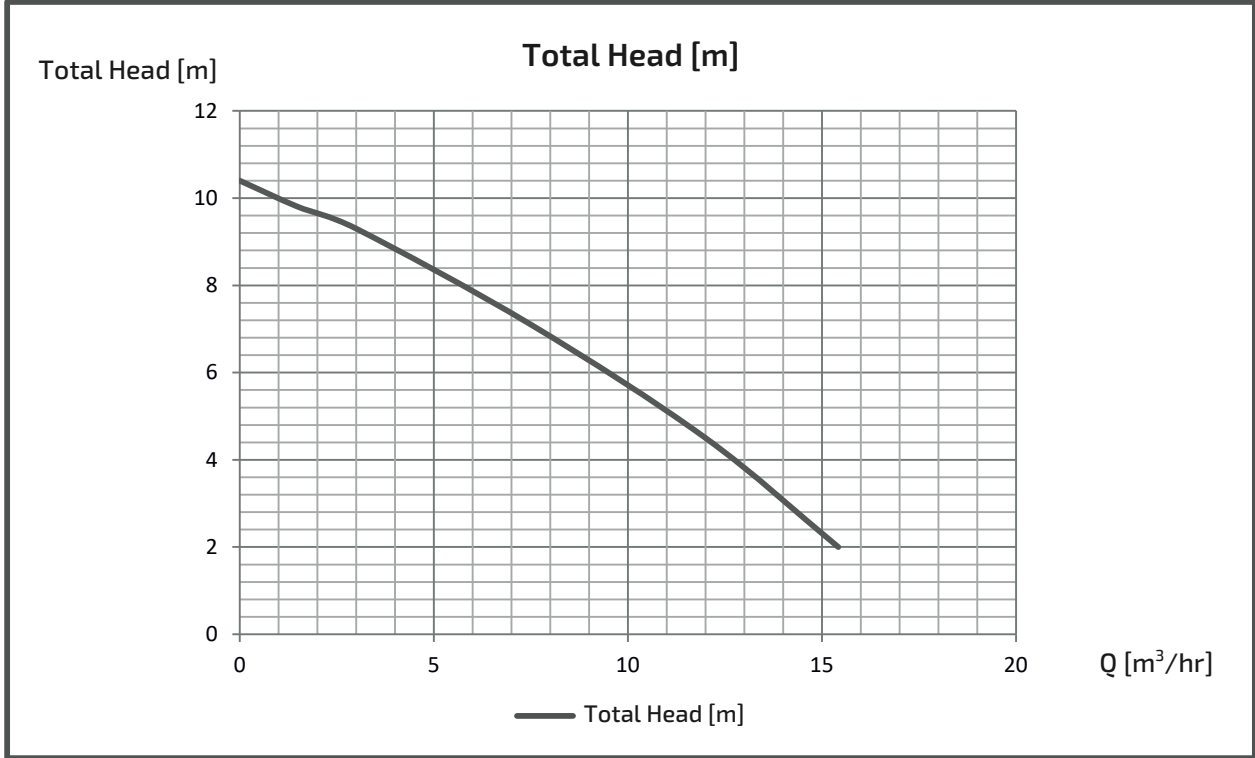
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-505-0.4S2-F

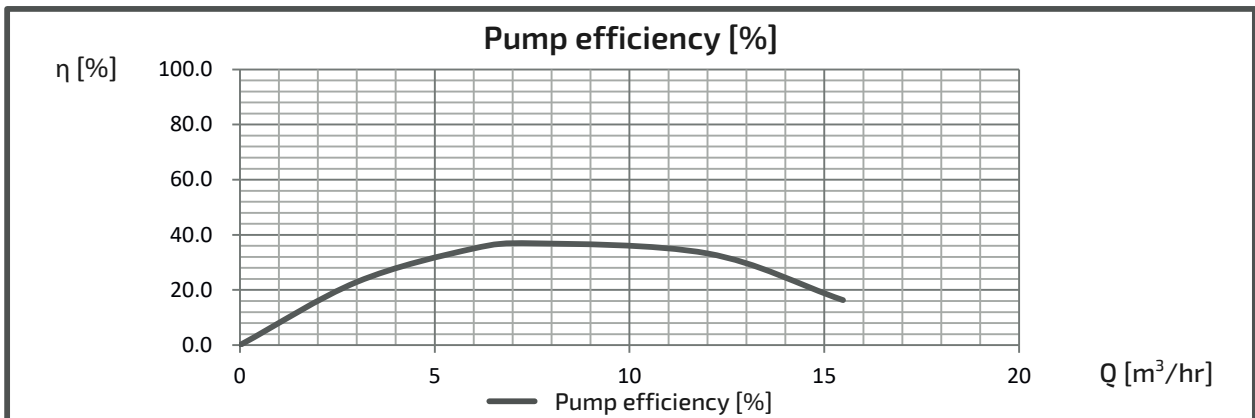
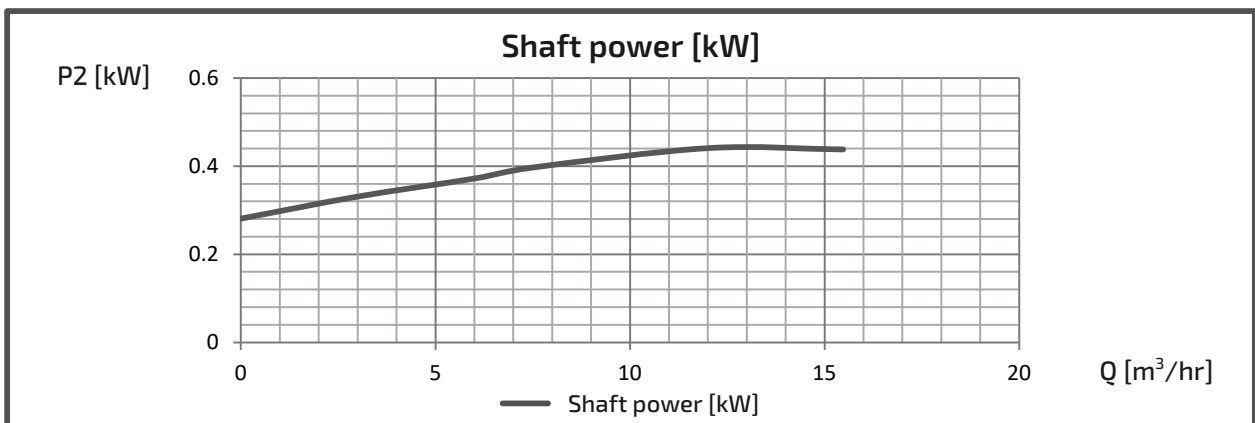
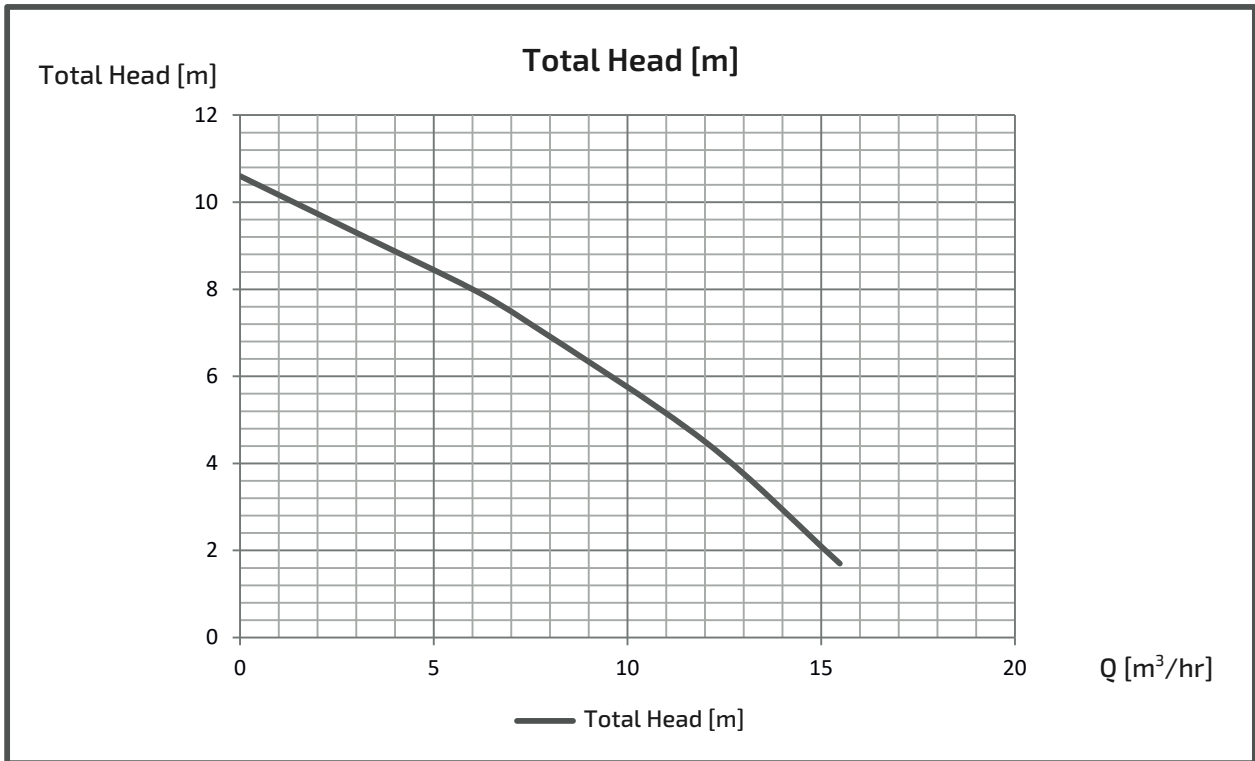
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-505-0.4T4-F

## ■ PERFORMANCE CURVES

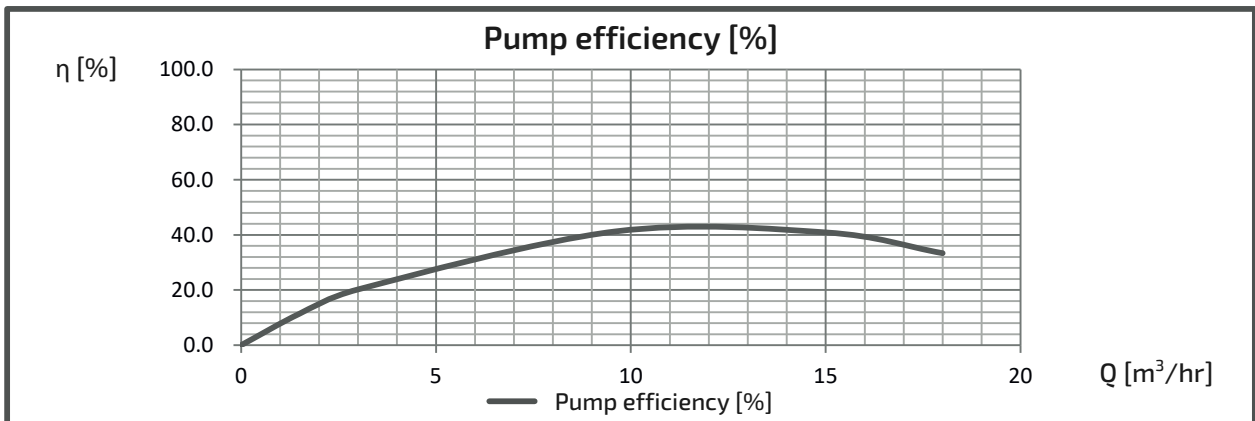
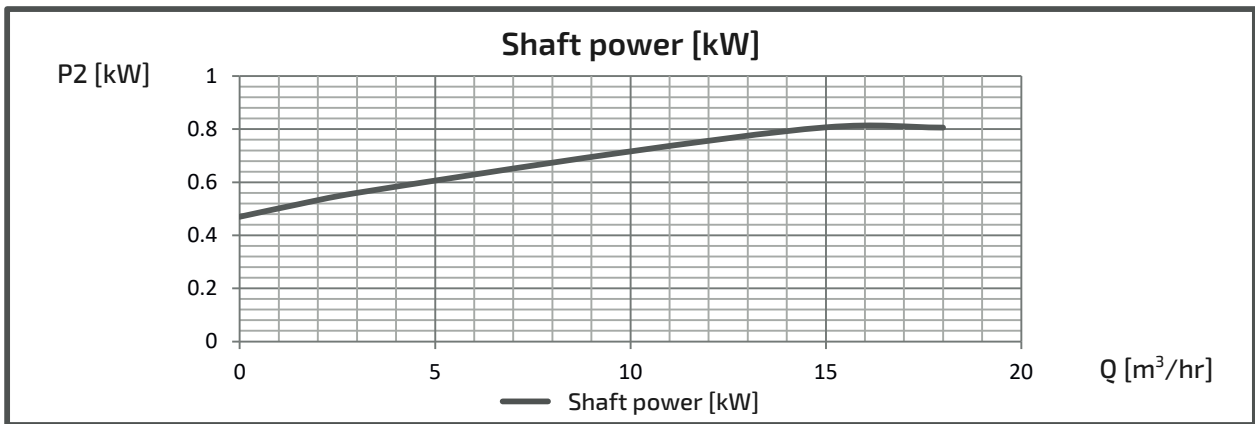
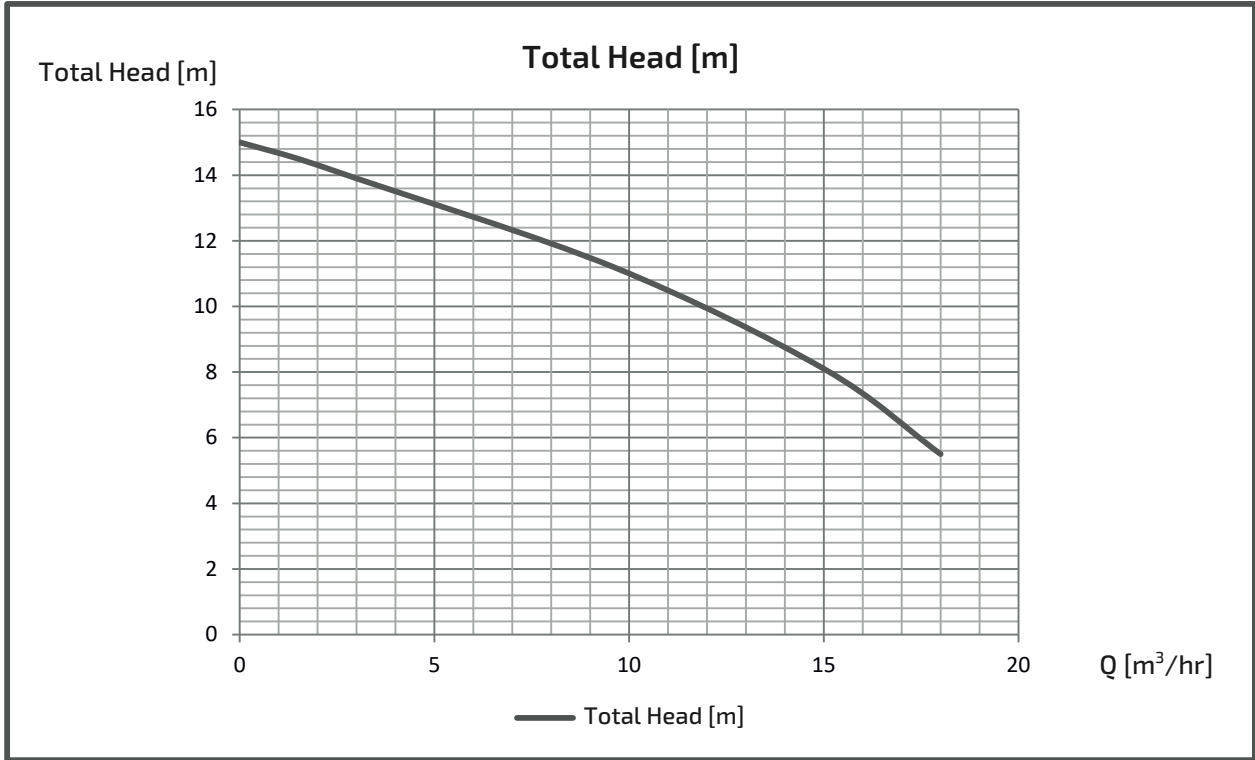




# EXPECTED PERFORMANCE CURVE

MODEL : WUO-505-0.75S2-F

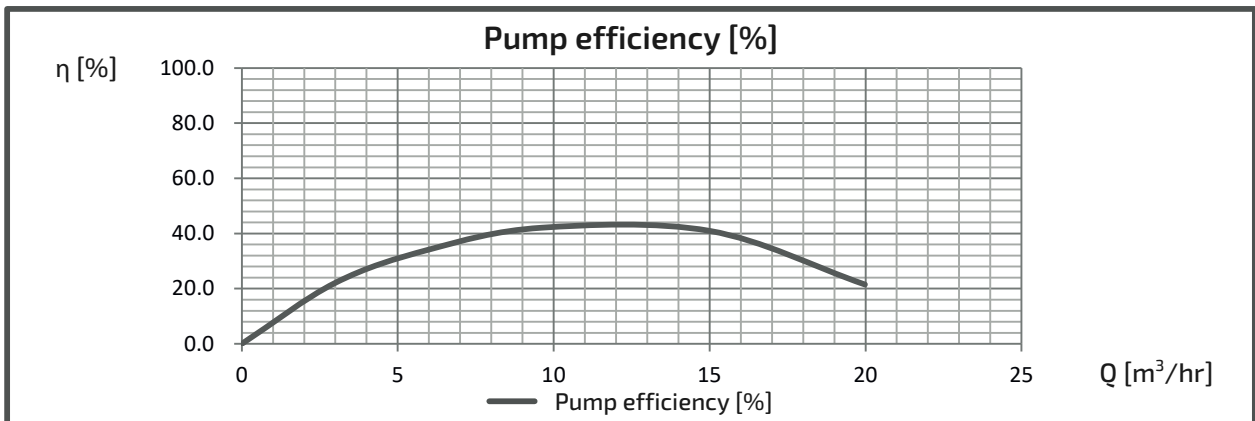
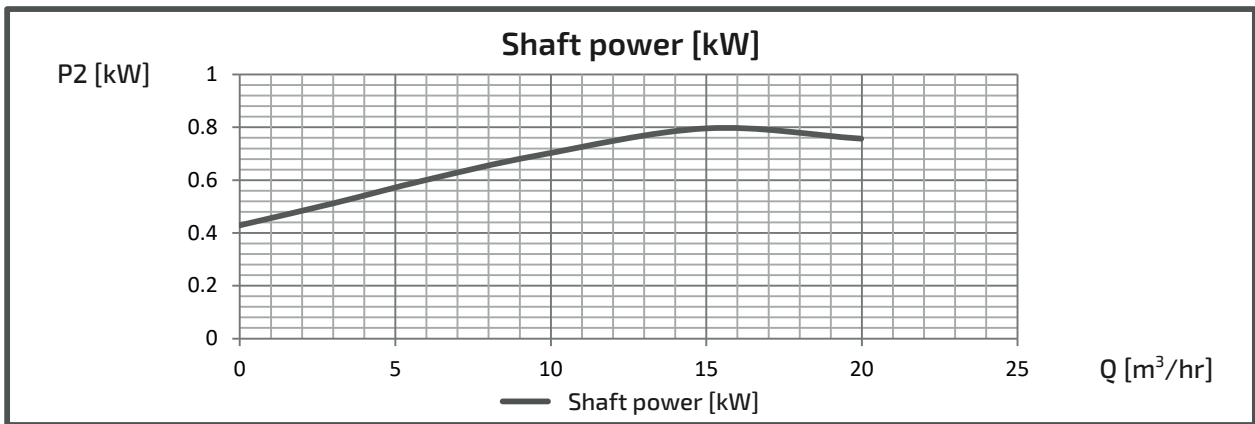
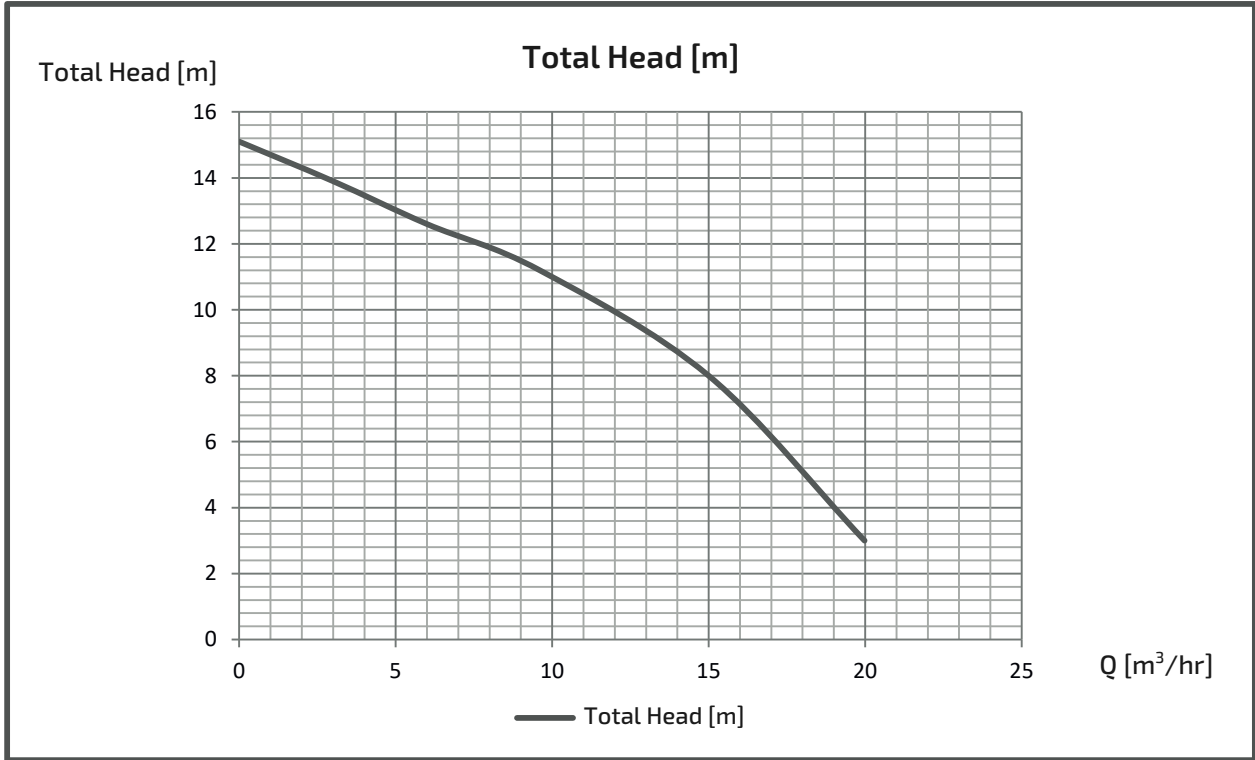
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-505-0.75T4-F

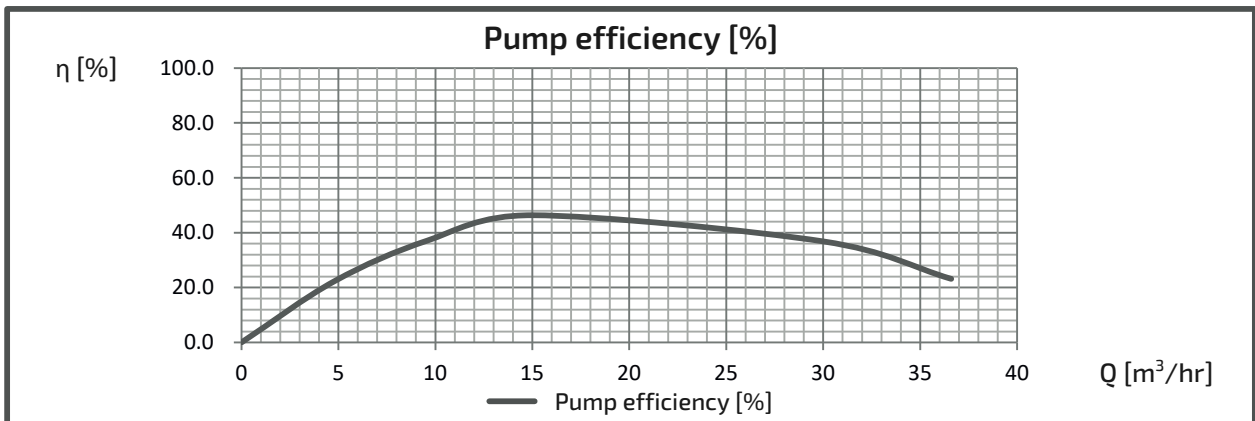
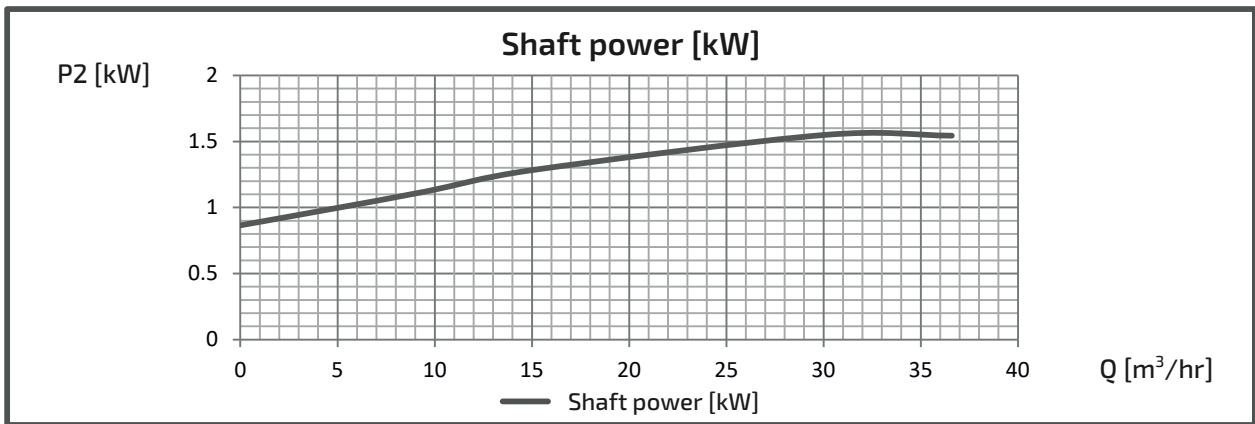
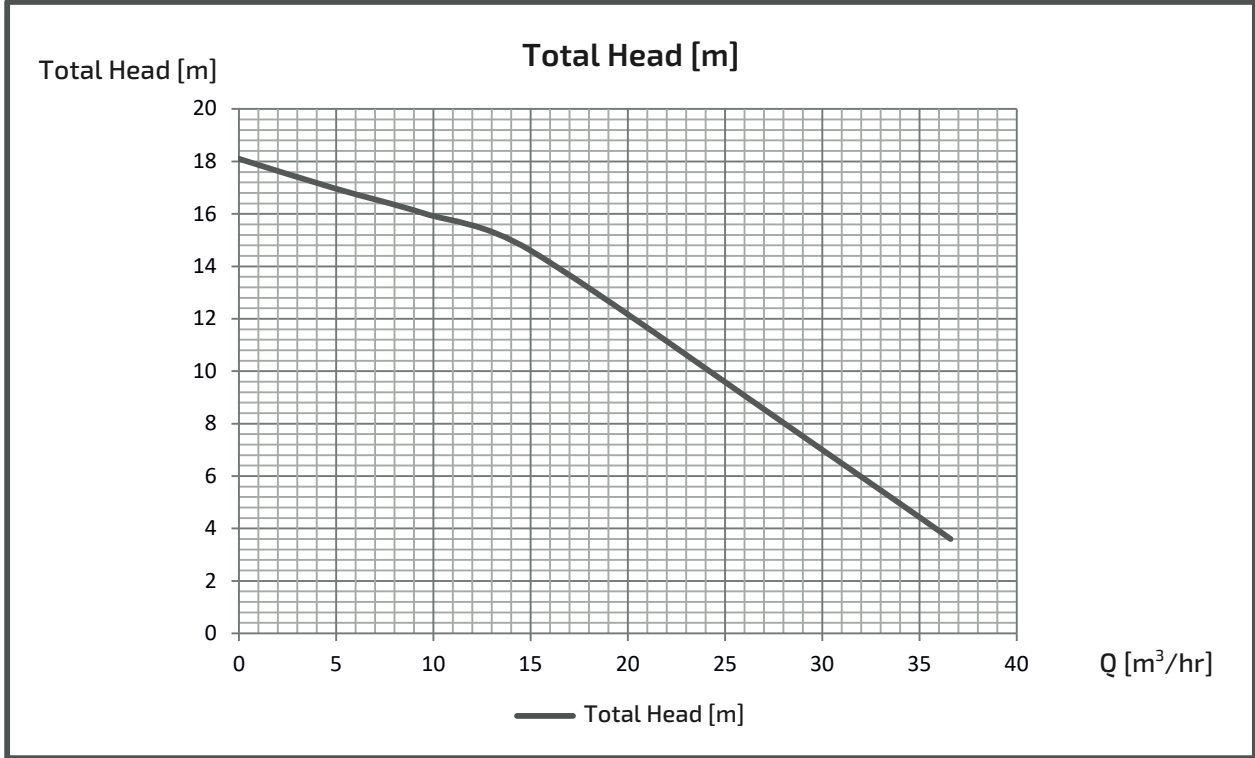
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-505-1.5T4-F

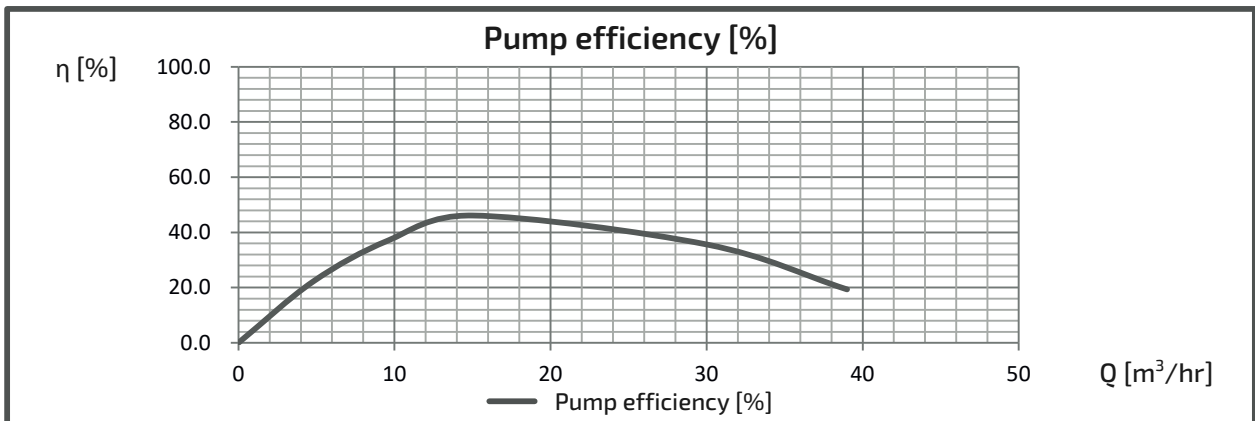
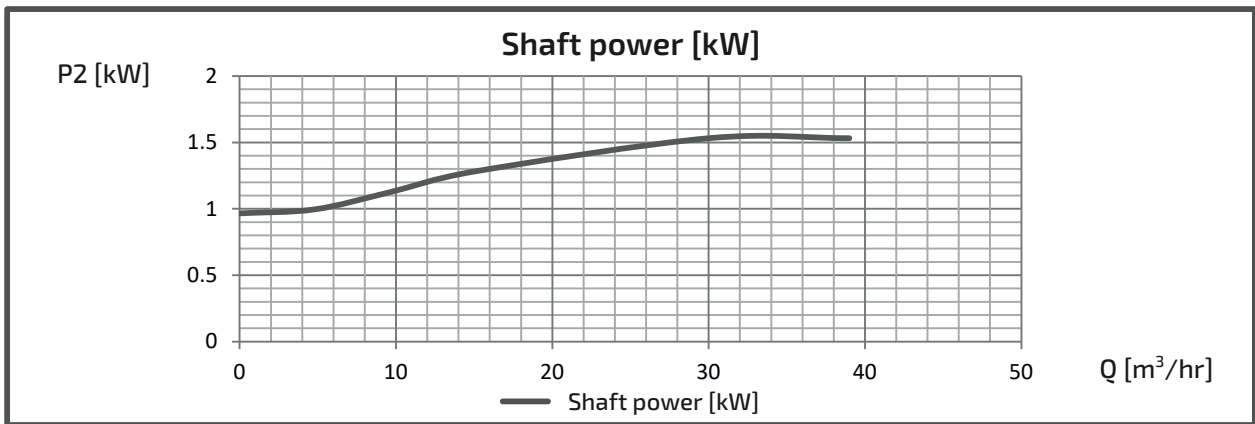
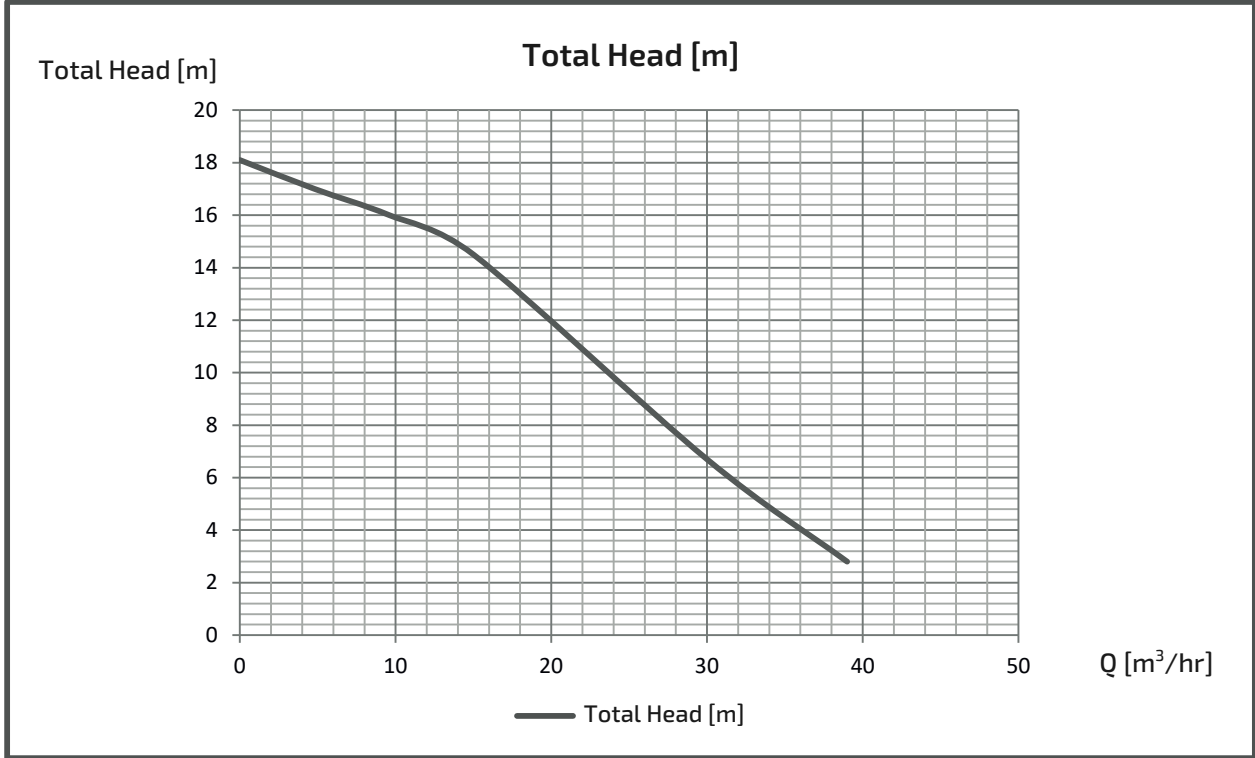
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-655-1.5T4-F

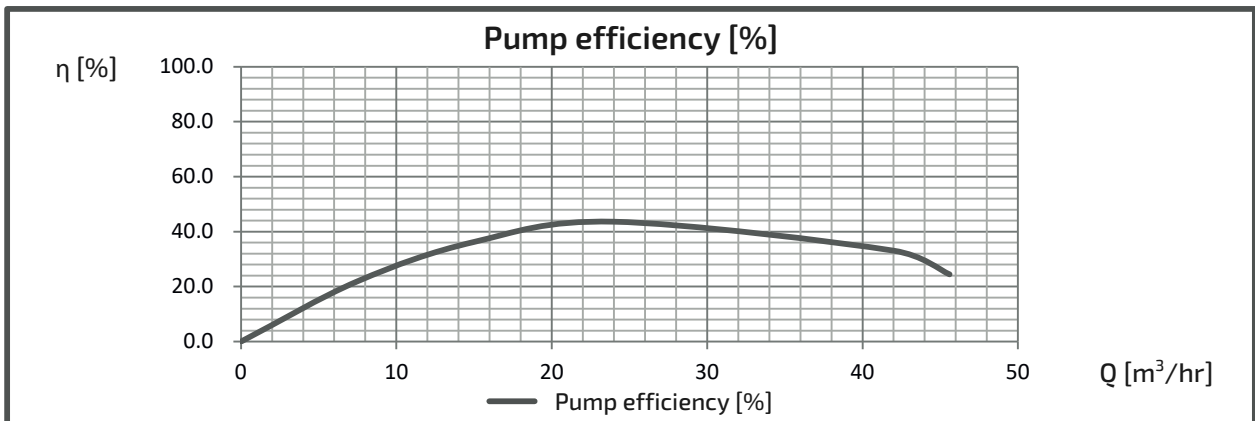
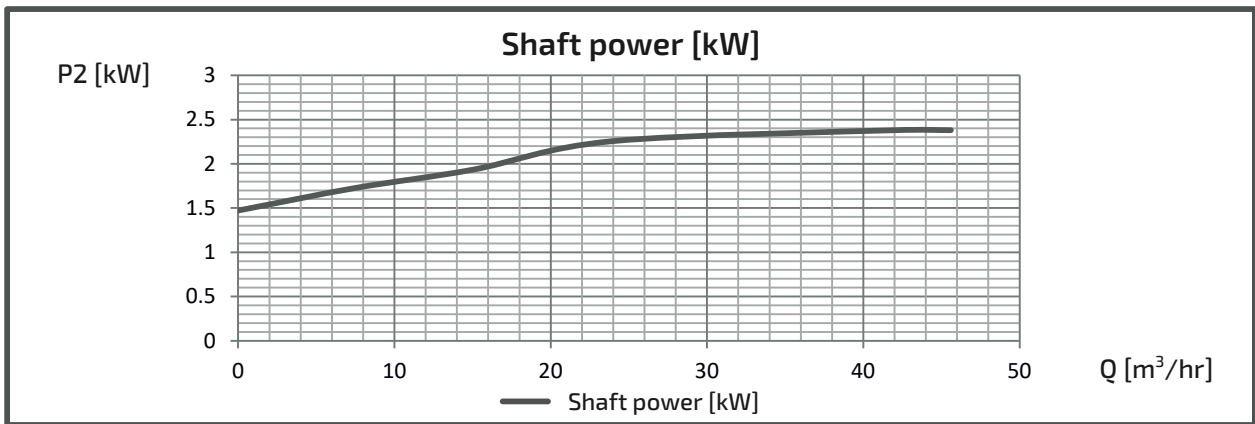
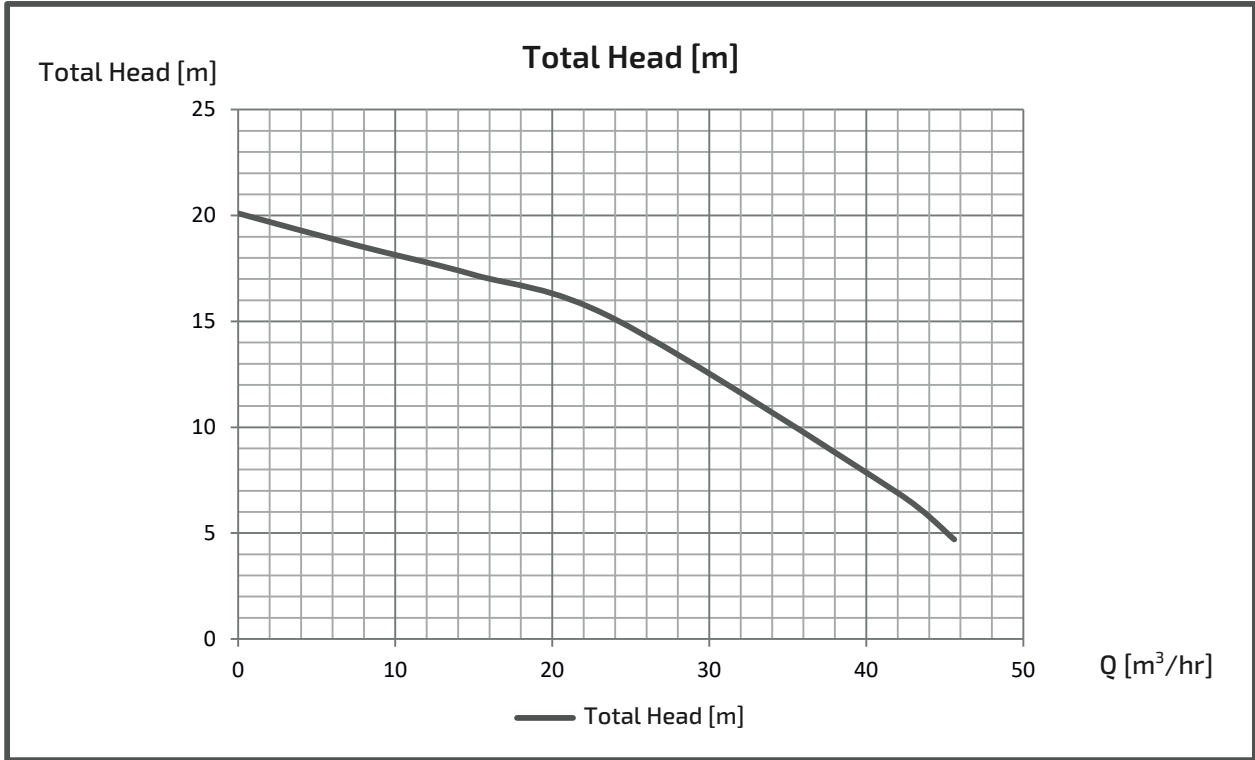
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-655-2.2T4-F

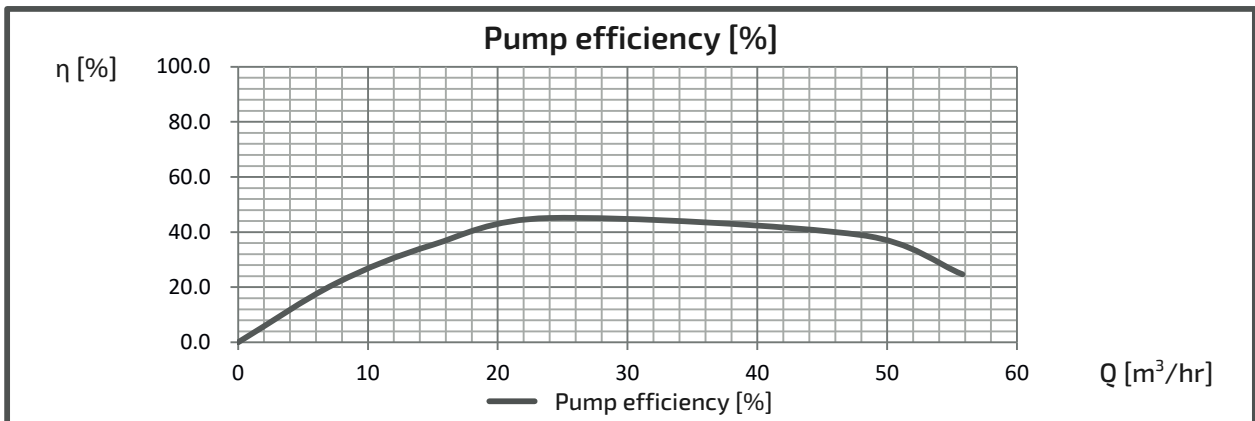
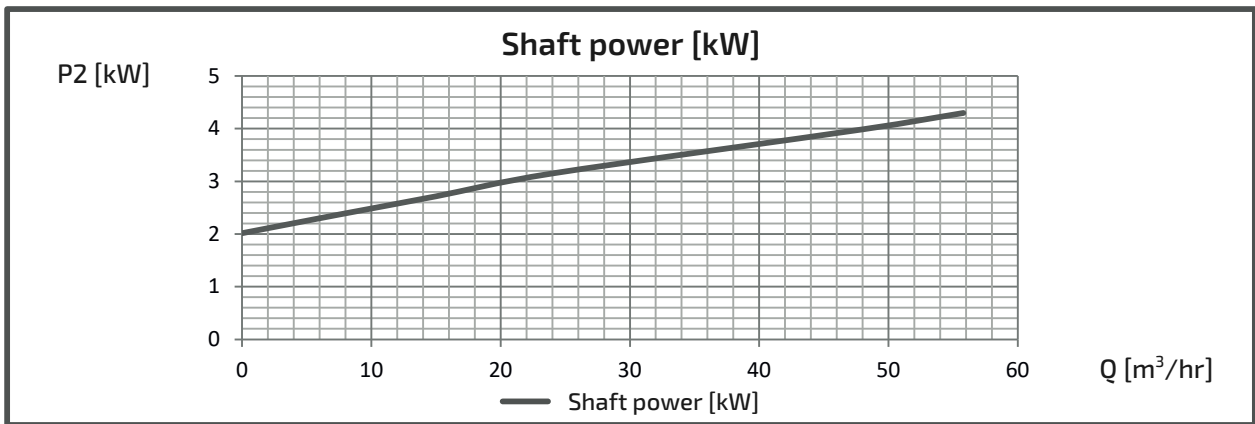
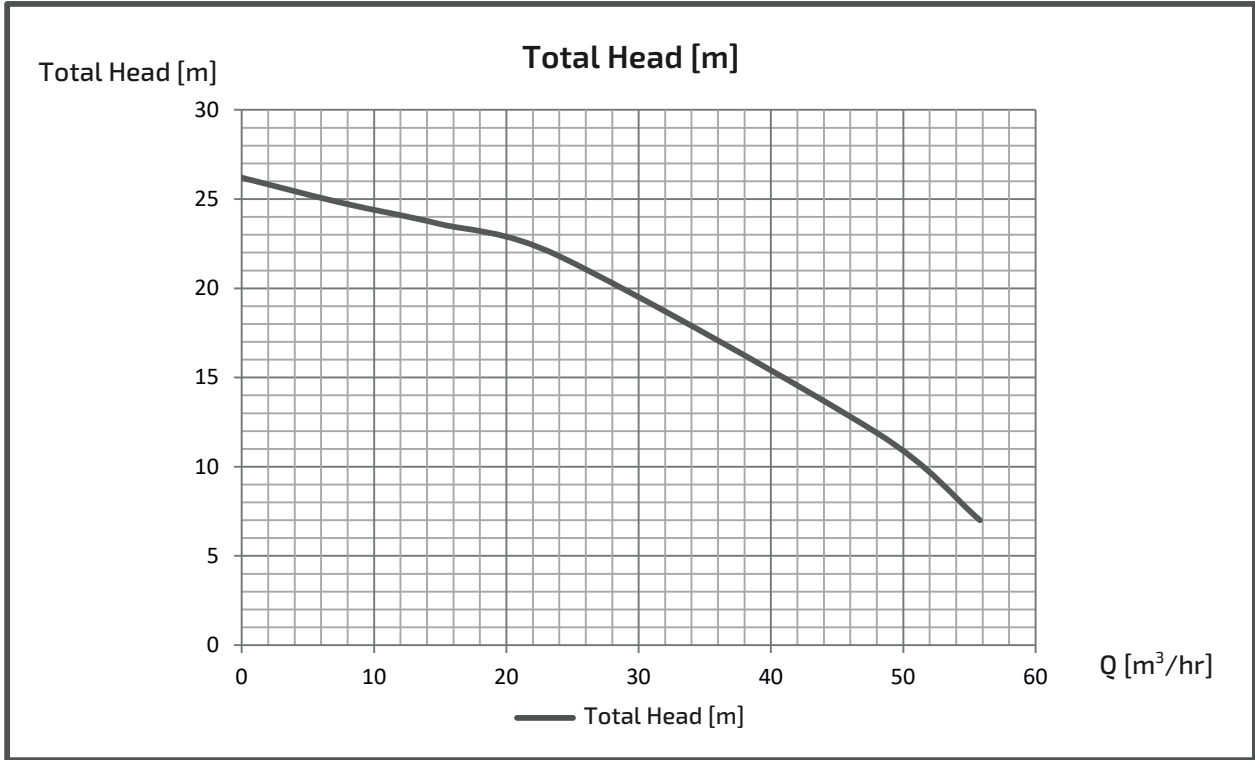
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-655-3.7T4-F

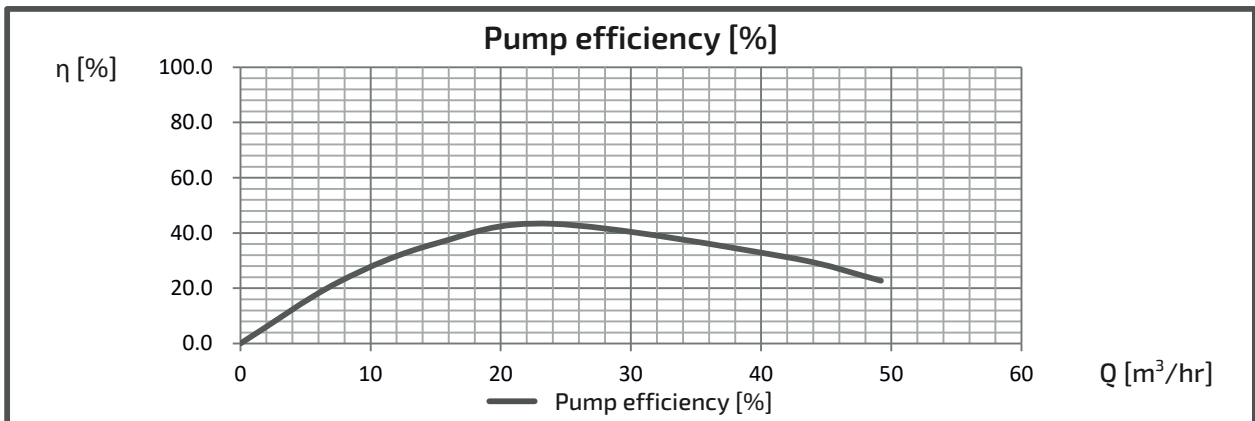
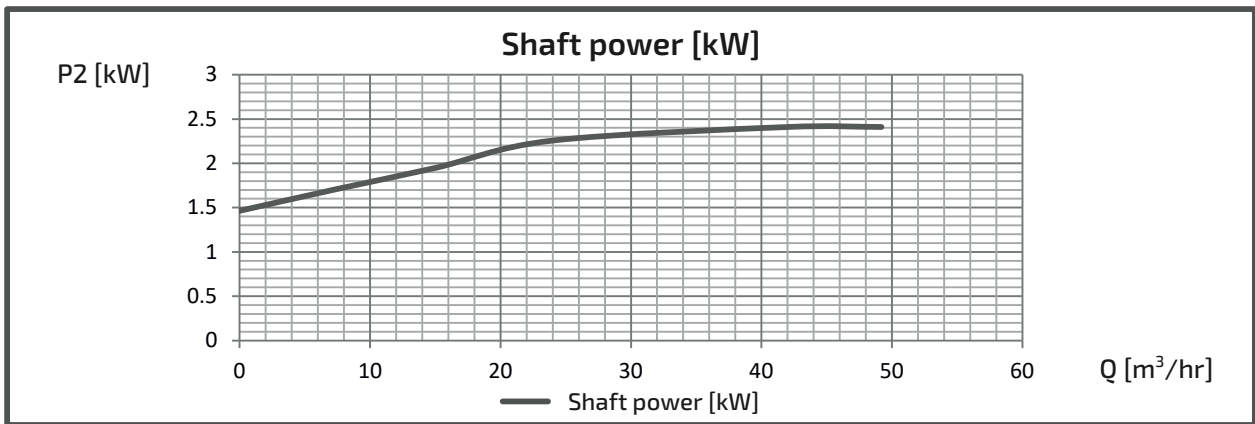
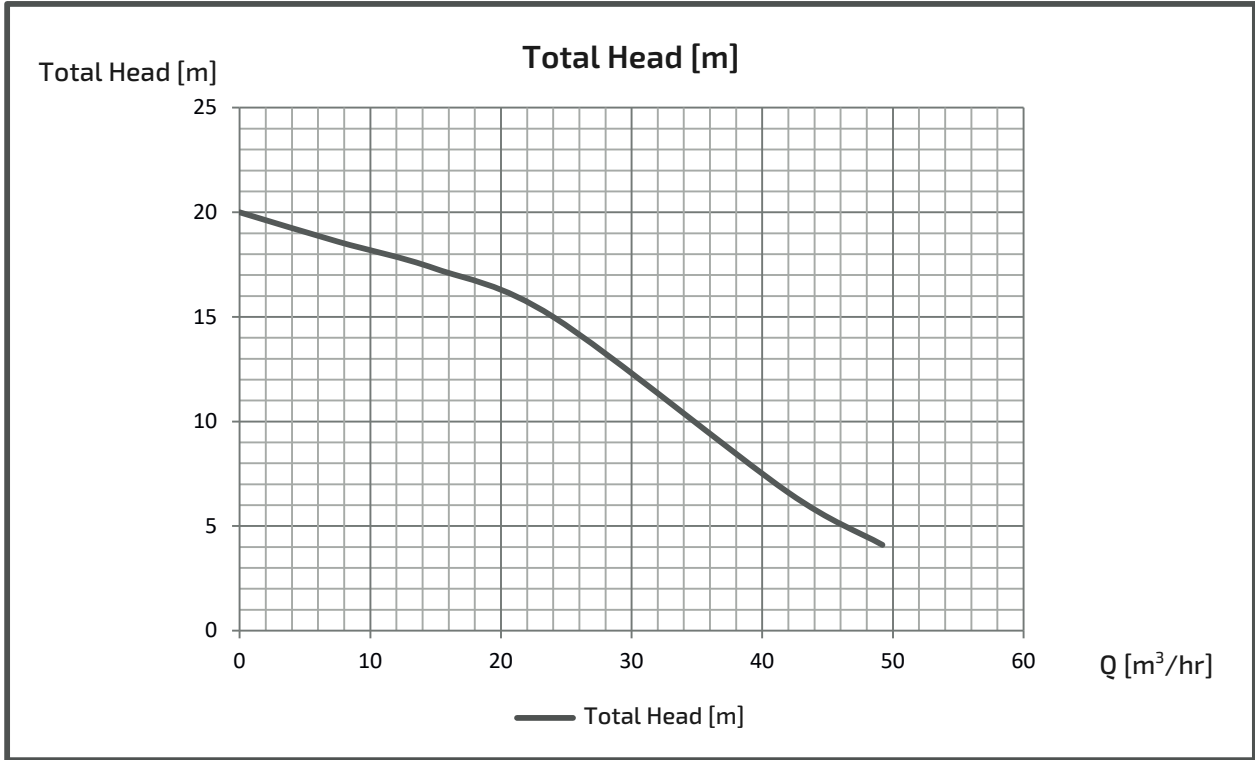
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-805-2.2T4-F

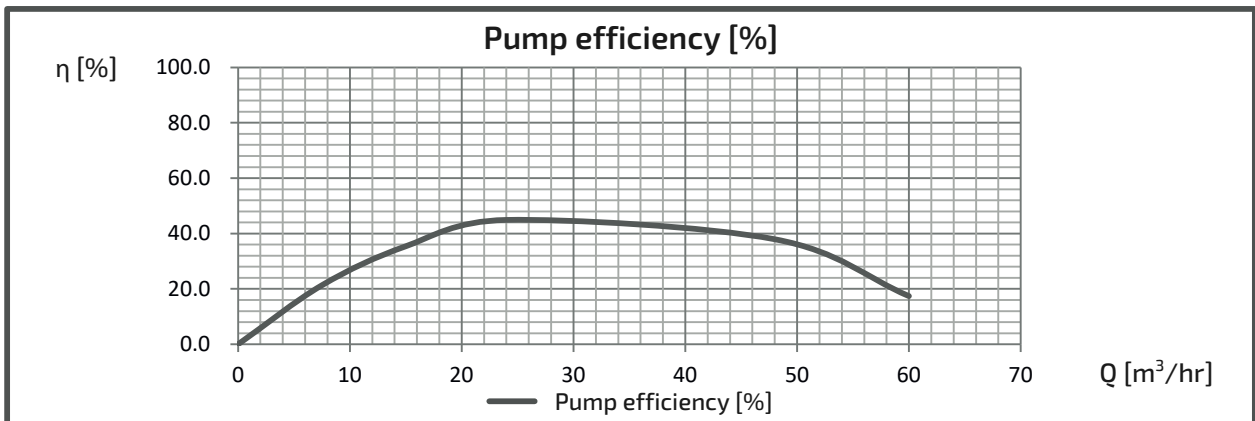
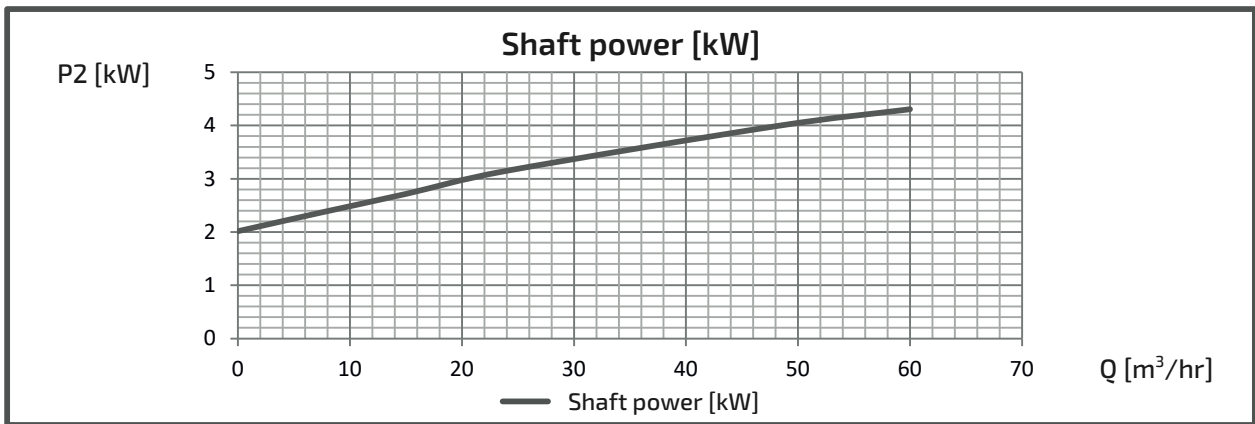
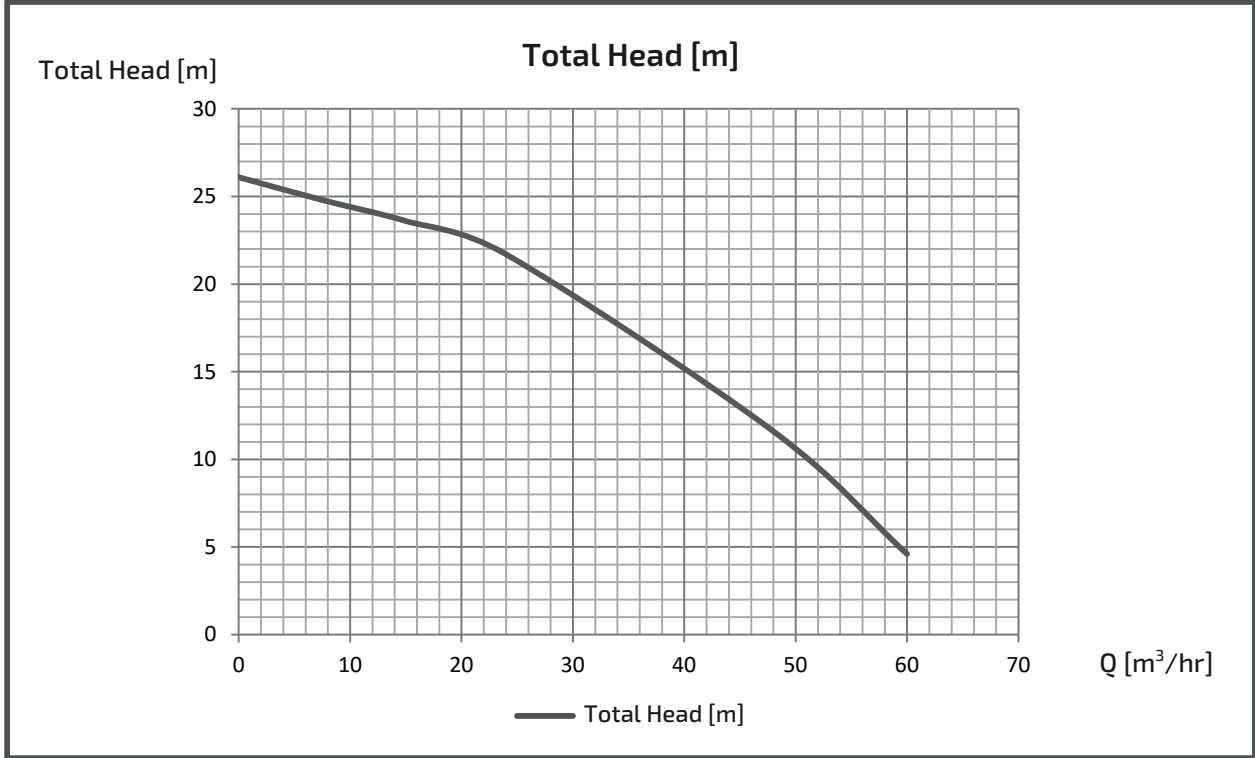
## ■ PERFORMANCE CURVES



# EXPECTED PERFORMANCE CURVE

MODEL : WUO-805-3.7T4-F

## ■ PERFORMANCE CURVES





# IMPORTANT SAFETY PRECAUTIONS

Always read the manual thoroughly and fully comprehend the contents for safe operation before starting use. Precautions for using products safely and for preventing personal injuries or physical damage are given in the manual.

- Matters falling under the following may not be covered by the warranty: uses out of the specified scope of application, failure to comply with precautions, improper repairs and alterations, matters arising from natural disasters, matters arising from the installation environment (improper power source, foreign objects, sand etc.), non-compliance with laws and regulations or standards pertaining thereto, accidental or intentional damage or injury, replacement of consumable parts, defects due to resale, etc.
- Do not use the product for applications out of the product specifications. Doing so may cause electric shock, fire, water leakage, etc.
- Have spare equipment ready when using pumps for equipment for living things (fish farms, fish tanks, aquariums, etc.) or critical equipment.
- Pump failure may cause lack of oxygen and water quality deterioration, and may affect the lives of the living things.  
When using pumps for equipment for living things (fish farms, fish tanks, aquariums, etc.), do not install the pump in the tank where the living things are put into. The current leakage or sealing liquid leak from the mechanical seal may cause the death of the living things.
- If used to transport food-related items, give due consideration to the materials used. Contamination by foreign objects may occur.
- Avoid using for living things which disagrees with copper alloy. It may affect the lives of the living things.
- Select a product which is appropriate for your application. Inappropriate use of products may cause accidents.
- Conduct construction in accordance with the applicable laws and regulations (the Technical Standards of Electric Installation, interior wiring regulation, Building Standards Act, Water Supply Law, etc.). Not only does it violate the laws and regulations, but it also may cause injuries due to electric shock, fire, falling and tipping over.
- Do not use in places where people are assumed to get in contact with the product (baths, pools, lakes, etc.). Electric leak may occur and cause electric shock.
- Depending on the equipment, attach a filter etc. appropriate for your application on the discharge side before use, perform thorough flushing to check that there is no contamination. Cutting oil, rubber mold releasing agent, foreign objects etc. from the manufacturing line and cutting oil, foreign objects etc. from the pipeline may contaminate the liquid which is to be handled.
- Do not operate pumps with a specification of 50Hz at 60Hz. It may cause damage due to overpressure or burn damage of motors etc. due to overload. Do not operate pumps with a specification of 60Hz at 50Hz. Pump performance may be reduced.
- Only repair technicians may disassemble, repair, modify the product or replace cables. Defects may cause failure, damage, electrification or fire.
- It is recommended that both periodic and daily inspections be performed in order to ensure that the pump will operate reliably for as long as possible. Failure to perform inspections may lead to pump failure, accidents etc. For periodic inspections, please consult your distributor or our nearest sales office.

## Note

Specifications/Configurations may be altered as a result of improvements and such.  
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