

**Technology.
Innovation.
Commitment.**



◆ STAINLESS STEEL
◆ SUBMERSIBLE PUMPS & MOTORS

Enhance your life





Enhance your life

Contents

Company Profile	4
Infrastructure	6

Submersible Pumps

Description & Pumped Liquids	7
Impellers, Curve Conditions & Materials	8
Group Curve & Model Identification Code	9
Features & Benefits	11
The Inside Picture	12
Cross Sectional View 4" & 6"	13
4" Pump Dimensional & Performance Details	16
6" Pump Dimensional & Performance Details	28

Submersible Motors

Description, Features & Specifications	51
Model Identification Code, Cable Data	52
The Inside Picture	53
Cross Sectional View & Performance Data - 4"	54
Cross Sectional View & Performance Data - 6"	58

Submersible Pumps & Motors Spare Parts

Submersible Pump - 4"	63
Submersible Pump - 6" (14 - 22 m ³ /hr)	64
Submersible Pump - 6" (30 - 60 m ³ /hr)	65
Submersible Motor - 4"	66
Submersible Motor - 6"	68
Cable Sizing	71
Friction Loss Table	73
Discharge Rate Table	75
Conversion Chart	76

Company Profile



Our Vision

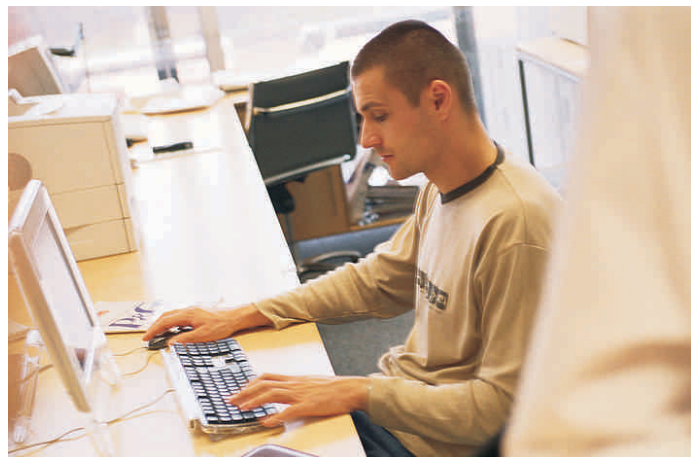
To satisfy the needs of people everywhere through the supply of technologically superior products and services.

It is this vision that inspires Sharp to deliver products that aptly meet the needs of the market, building an unshakeable trust in millions of homes through the years. Sharp Pumps Pvt. Ltd, started in 1986, is a leader in Monobloc Water Pumps in India. Working on the basis of sound science, Sharp has created products, which are now household names relied on for the smooth functioning of daily lives in India.

Technology

The driving force behind our success.

Technology is the cornerstone of Sharp products and services. Given the fast pace of change in technology it is imperative for every successful company to stay ahead of the times. Sharp ensures research and study in the field of pumps and ensures use of the same in continuously upgrading the quality.



Quality

Strict to ensure safety and longevity of products

By applying rigorous standards of Quality, Sharp has been able to deliver sustained success through the years. Whether it's about the safety of the products or their longevity, the processes and tests at Sharp ensure the customer gets the best every time.



Commitment

Inspired to perform for over 2 decades

Technology performance is driven by commitment – to values, to the customer, to processes at Sharp. Every customer is important and every interaction is unique. Keeping this in mind, Sharp maintains a total commitment to exceptional standards of performance and productivity, to working together effectively and to a willingness to embrace new ideas and learn continuously.

Social Conscience

Sharp exhibits high standards of corporate behavior towards employees, customers, the societies, and the world. This is Sharp's road to sustainable, profitable growth for long-term value creation.

Through different projects, Sharp provides care for needy patients, education and support for physically challenged children, basic education for children in rural areas, employment oriented technical education and support to government relief measures in natural calamities and more.

Infrastructure



STAINLESS STEEL SUBMERSIBLE PUMPS

Point Stainless steel Submersible Pumps are ingeniously designed and developed with latest engineering softwares and high-tech machinery of pumping technology to deliver the best possible hydraulic efficiency. All these pumps are made of corrosion resistance Stainless steel material with Non return valve. These pumps are made by High quality AISI 304 / AISI 316 grade stainless steel.

Point 4" Stainless steel Submersible Pumps discharge range from 0.4m³/hr to 18m³/hr and Head range from 4.0m to 520m. These Pumps are available with 1 ¼", 1 ½" & 2" Outlet Sizes.

Point 6" Stainless steel Submersible Pumps discharge range from 7m³/hr to 80m³/hr and Head range from 4.5m to 550m. These Pumps are available with 2", 2½", 3" & 4" Outlet Sizes.

Point Stainless steel Submersible Pumps are used for Public water supply, Irrigation, Fountains, De-watering, Sprinkler systems, Industrial water supply and Pressure boosting systems.

Features of Point Stainless steel Submersible Pumps :

- Stainless steel impellers and diffusers to resist corrosion
- Built in non-return valve to protect the pump against water hammer
- Highly efficient
- Good resistance to sand
- Energy efficient hydraulic design for cost effective operation
- Easy to install and dismantle for service in the field if necessary.

Pumped Liquids

Non-aggressive, non-explosive, pure, cold, fresh water without abrasive particles having the following characteristics.

• Temperature	91.40°F
• Chlorine ion density	500 ppm (max.)
• Allowable solids	3000 ppm (max.)
• Specific gravity	1.004 (max.)
• Hardness (Drinking Water)	300 (max.)
• Viscosity	1.75x10 ⁶ m ² /sec (max.)
• Turbidity	50 ppm silica scale (max.)
• pH	6.5 to 8.5



Impellers

Radial flow

4" : PS4S – 1m³/hr, PS4S – 2m³/hr, PS4S – 3m³/hr, PS4S – 5m³/hr and PS4S – 8m³/hr

6" : PS6S – 14m³/hr, PS6S – 18m³/hr and PS6S – 22m³/hr

Mixed flow

4" : PS4S – 14m³/hr

6" : PS6S – 30m³/hr, PS6S – 46m³/hr and PS6S – 60m³/hr

Connection

Screw pipe connection with BSP thread as standard

NPT thread pipe connection are available on request

Curve Conditions

The conditions below apply to the curves shown in the following pages.

Common

- Tolerances in accordance with ISO 9906, Annex A.
- Test results with clean cold water, without gas content. Measurements have been made with airless water at a temperature of 20°C.
- Head and power values valid for liquids with density $\rho = 1.0 \text{ kg/cm}^3$ and kinematic viscosity $\nu = \max 1 \text{ mm}^2/\text{s}$ (1cSt)
- When pumping liquids with a density higher than water, correspondingly motors with higher outputs must be used.
- The QH curves apply to a rated motor speed of 2900 rpm.
- The performance curves are inclusive of possible losses such as non-return valve losses.
- A safety margin of +0.5m is recommended for the NPSH range.

4" & 6" Curves

- QH : the curves are inclusive of valve and inlet losses at the actual speed.
- Power curve : the power curve shows pump power input at the actual speed for one stage.
- Efficiency curve : $\eta\%$ shows pump stage efficiency.

Operating Conditions

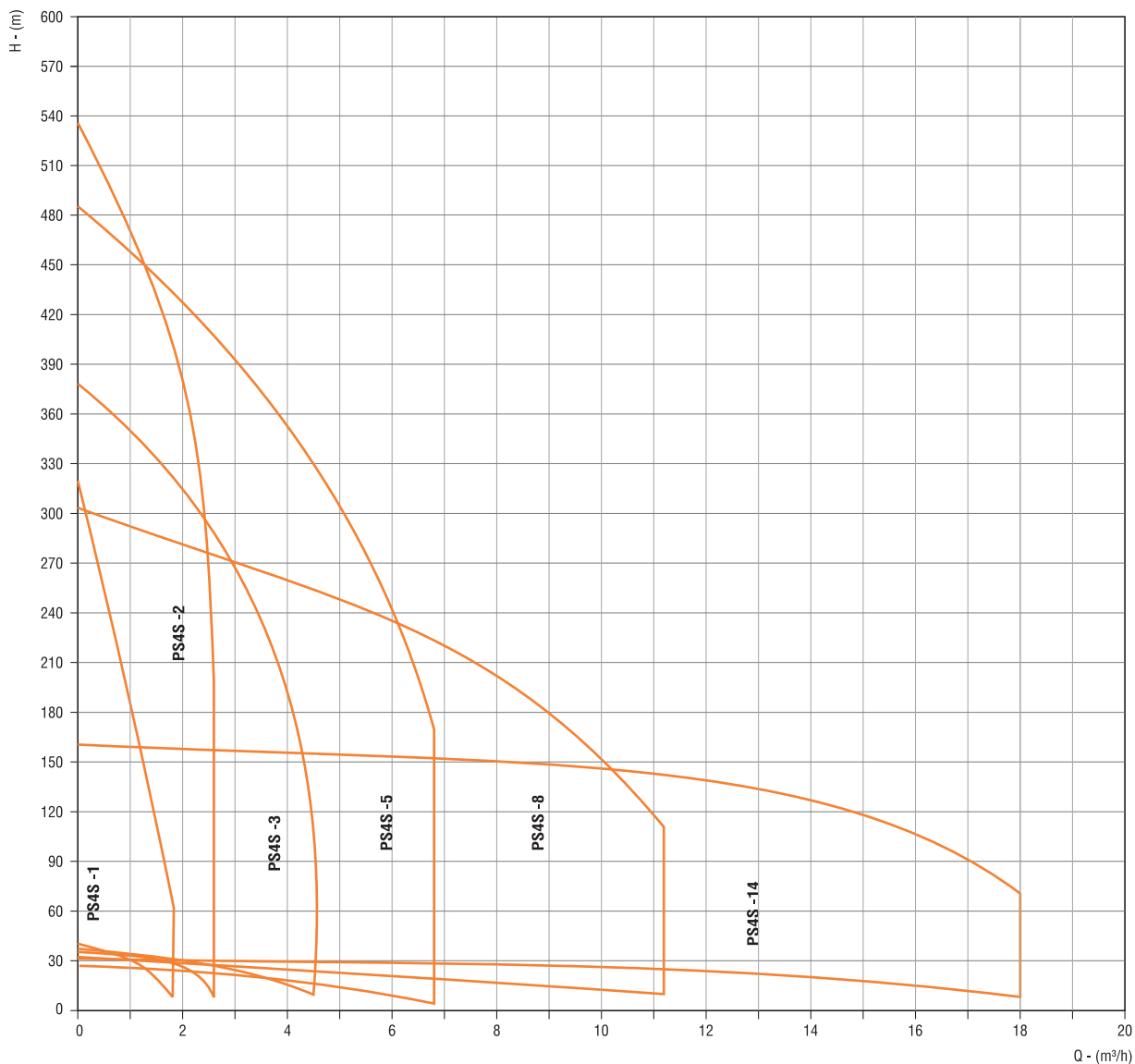
Liquid temperature : 0° to +45°C

Max.sand content into the water : 50g/m³

Max. starts per hour : 30 at regular intervals.

Direction of rotation : Clockwise as seen from the pump coupling side.

Group Curve - 4" Submersible

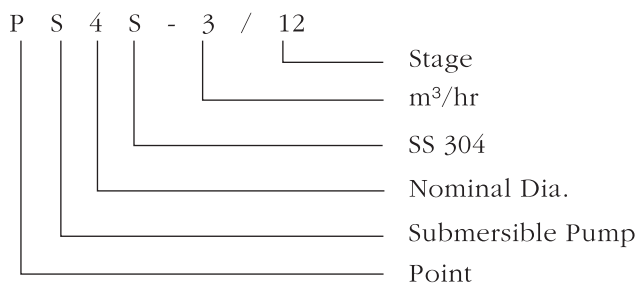


Model Identification Code

Borewell Submersible Pump

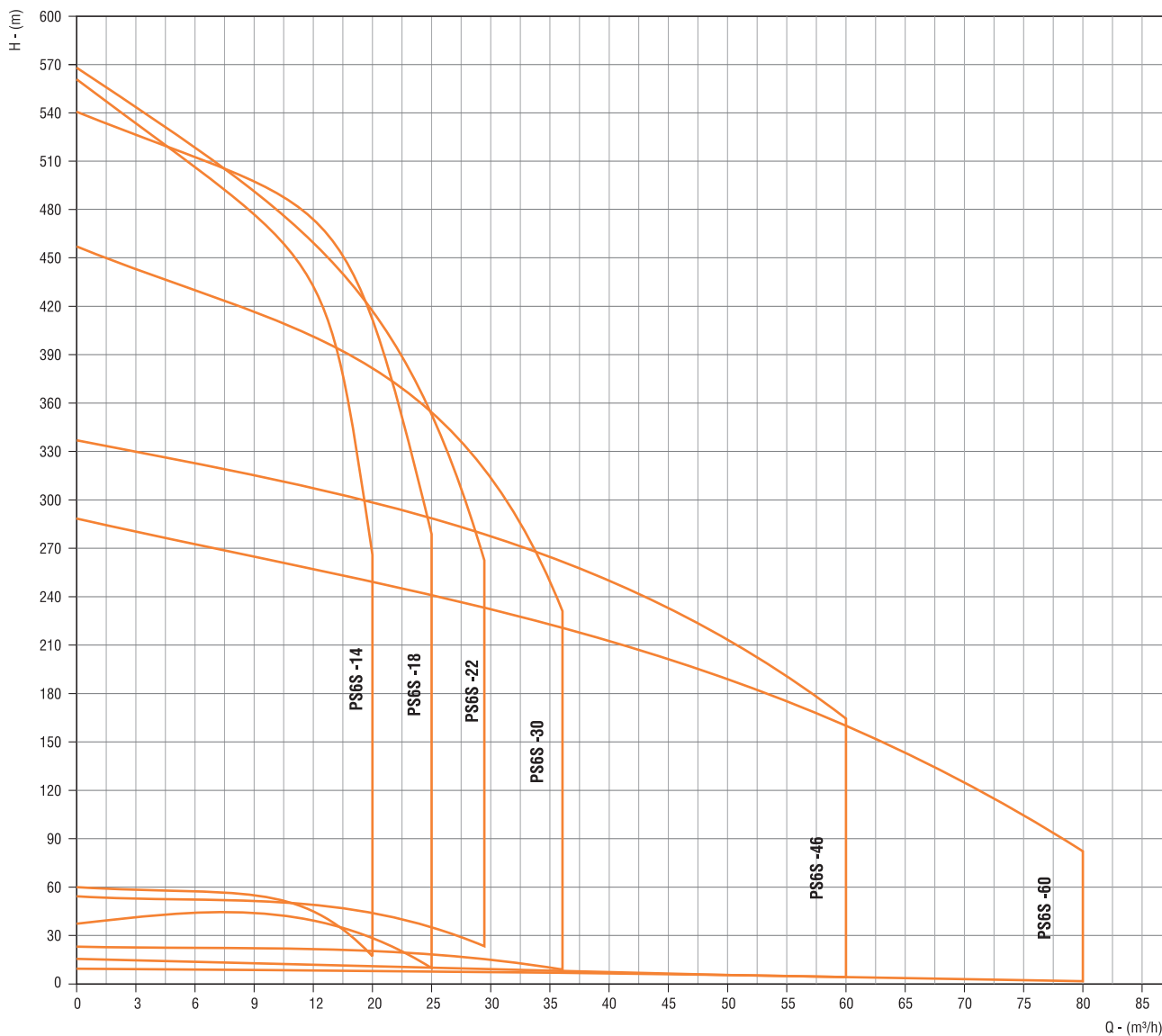
- P - Point
- S - Submersible Pump
- * - Nominal Diameter
- S (R)* - Material Type
- ** - Nominal Flow
- /** - No. of Stage

Example :



* Note : (R) Available with SS 316.

Group Curve - 6" Submersible

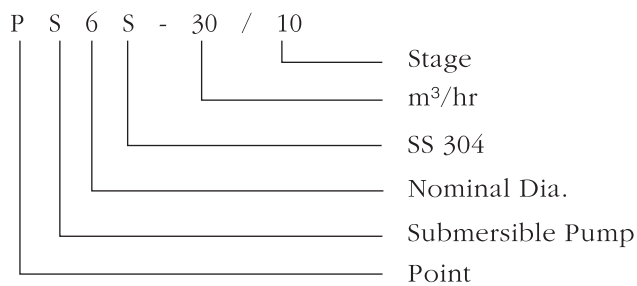


Model Identification Code

Borewell Submersible Pump

- P - Point
- S - Submersible Pump
- * - Nominal Diameter
- S (R)* - Material Type
- ** - Nominal Flow
- /** - No. of Stage

Example :



* Note : (R) Available with SS 316.

Features and Benefits



Impeller / Diffuser

Point Submersible pumps are made with SS impeller and Diffuser for high efficiency and less loss. Impellers and Diffusers are available with various material grades like AISI 304 / AISI 316.



Shaft

Pump Shafts are designed and made of AISI 304 / AISI 431 grade Stainless steel material.



Non return Valve with Body

The integral Non return valve prevents back flow and reduces the risk of water hammer which paves the way for trouble free operation. Non return valve available with various material grades like AISI 304 / AISI 316.



Wearing Ring / Intermediate Bush

The wearing Ring and Intermediate bush are made with high quality NBR rubber which has less wear and tear resistance.



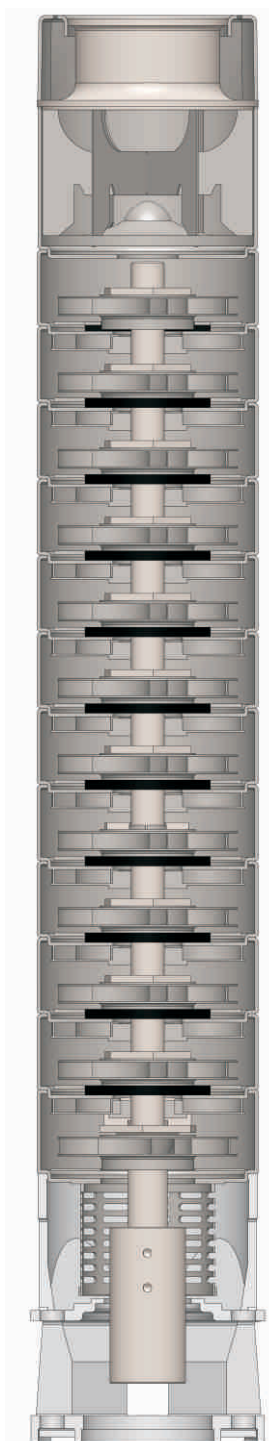
Strainer

Strainers are provided in the inlet which prevent the oversized particles entering into the pump.

Reliability

Reliability is ensured by means of high material standard and process methods. Pump parts are made up of stainless steels, which can withstands high abrasive and corrosive environment. Bush bearing and other rubber components are also designed to withstand sand abrasion and erosion.





The Inside Picture

Technology

The technology of submersible pumps are multistage single suction centrifugal type provided with integral check valve which can be coupled to a submersible electric motors. The submersible pumps are designed and manufactured to provide smooth and easy installation.

Point submersible pumps can be offered to couple with either Point water filled submersible motors or other NEMA standard motors.

The pumps are checked in each stage of the assembly process up to the final stage. Flow, pressure, power consumption and leaks are checked in every pump.

Material Options

Point submersible pumps are available in stainless steel AISI 304 and AISI 316 grade.

Pump shaft	– AISI 304 & AISI 431
Diffuser casing	– AISI 304 / AISI 316
Impeller	– AISI 304 / AISI 316

Efficiency

To make a positive impact in the pump efficiency level, effective measures have been taken in designing of every component. Superior manufacturing methods are adopted to achieve higher efficiencies.

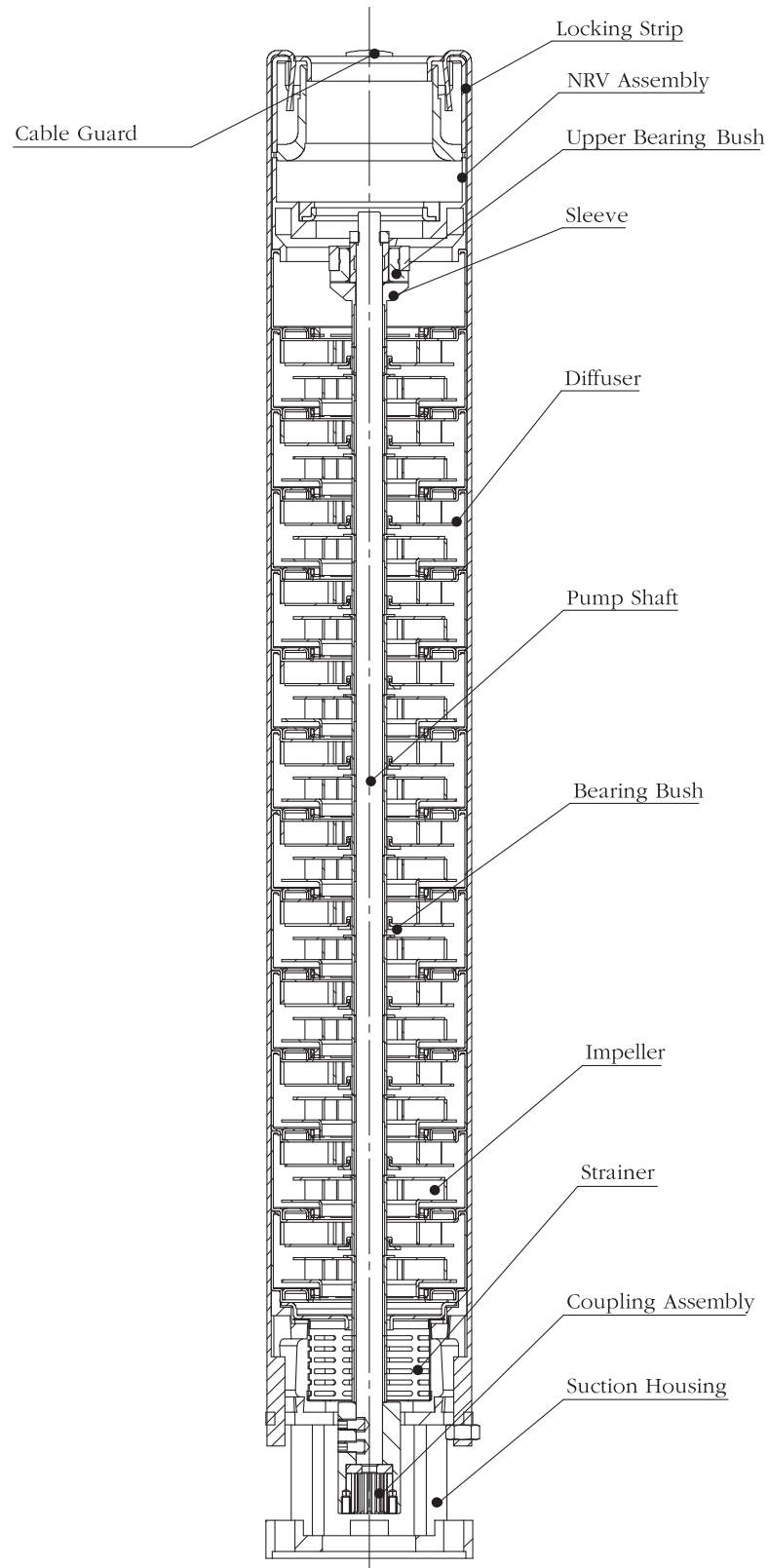
Durability

The best material, high quality manufacturing methods and rigorous safety tests are conducted to ensure superior strength and durability of each product.



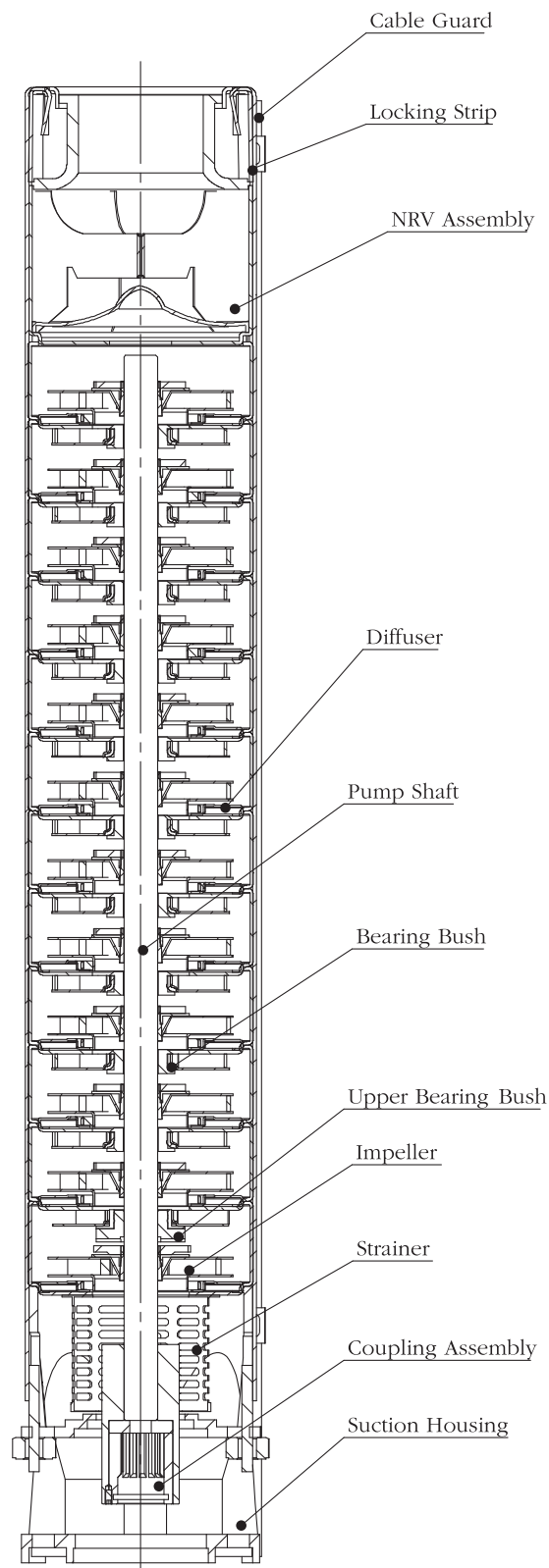
Cross Sectional View

4" - Stainless Steel Submersible Pump



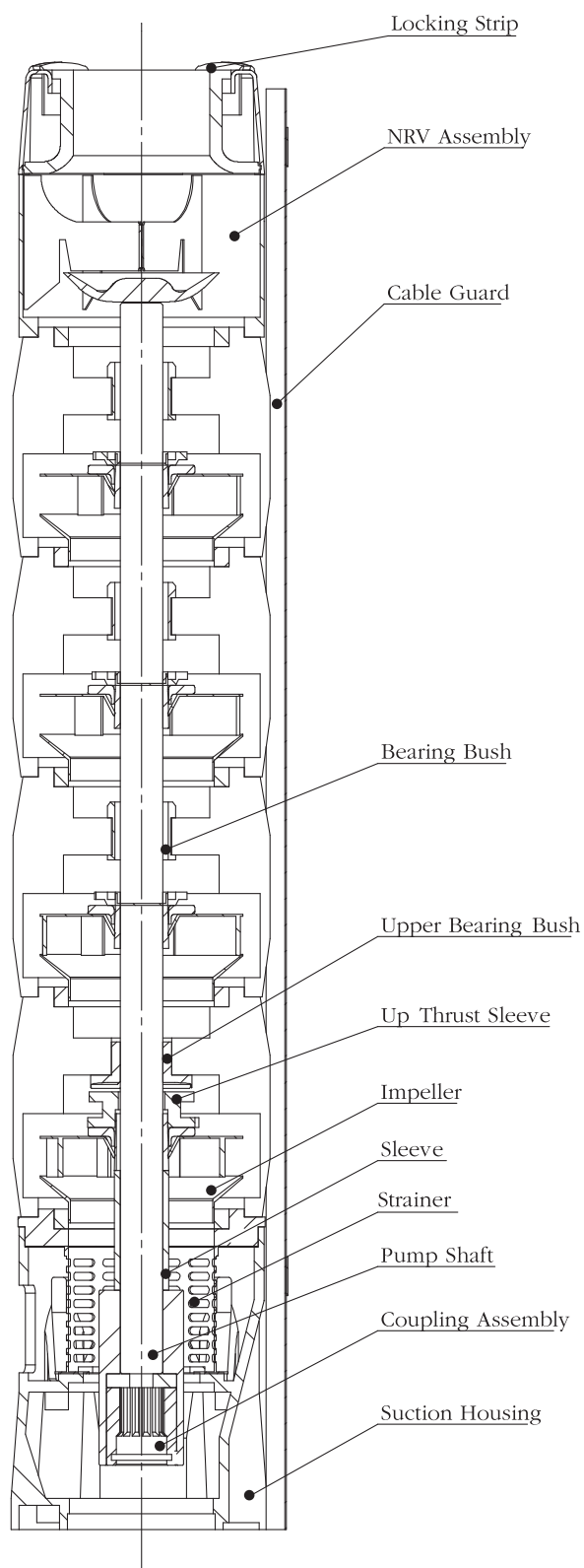
Cross Sectional View

6" - Stainless Steel Submersible Pump (14 - 22 m³/h)



Cross Sectional View

6" - Stainless Steel Submersible Pump (30 - 60 m³/h)



Nominal Diameter : 4"

Nominal Flow : 1m³/h

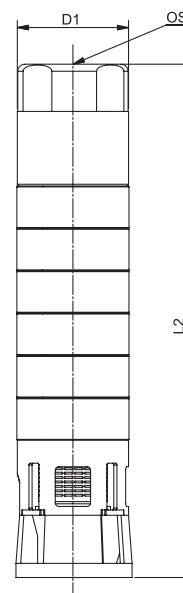
Outlet Size : 1¼"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	0.11	0.16	0.22	0.27	0.33	0.38	0.44	0.47
		m ³ /h	0	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.7
PS4S -1/09	0.37	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	50	45	41	38	32	26.5	20	12	9
PS4S -1/14	0.37		80	70.5	65	58	49	39	29	18	12.5
PS4S -1/18	0.55		105	94	88	79.5	70	59.5	47	33	26
PS4S -1/21	0.55		125	116.5	108	99	85	69.5	53	39	30
PS4S -1/28	0.75		165	148	135	122	107	90	69	47	35
PS4S -1/36	1.1		198	182	165	145	123	102	80	54	41
PS4S -1/42	1.1		230	211	190	165	140	116	89	60	45
PS4S -1/50	1.5		280	250	226	199	170	140	106	70	51
PS4S -1/57	1.5		320	284	253	221	189	155	120	82	63

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP	D1	OS	L2	
PS4S -1/09	0.37	0.5	97	32	351	4.2
PS4S -1/14	0.37	0.5	97	32	461	4.9
PS4S -1/18	0.55	0.75	97	32	549	6.1
PS4S -1/21	0.55	0.75	97	32	615	6.6
PS4S -1/28	0.75	1	97	32	770	8.1
PS4S -1/36	1.1	1.5	97	32	1113	13.5
PS4S -1/42	1.1	1.5	97	32	1257	15.6
PS4S -1/50	1.5	2	97	32	1473	18.0
PS4S -1/57	1.5	2	97	32	1641	20.3

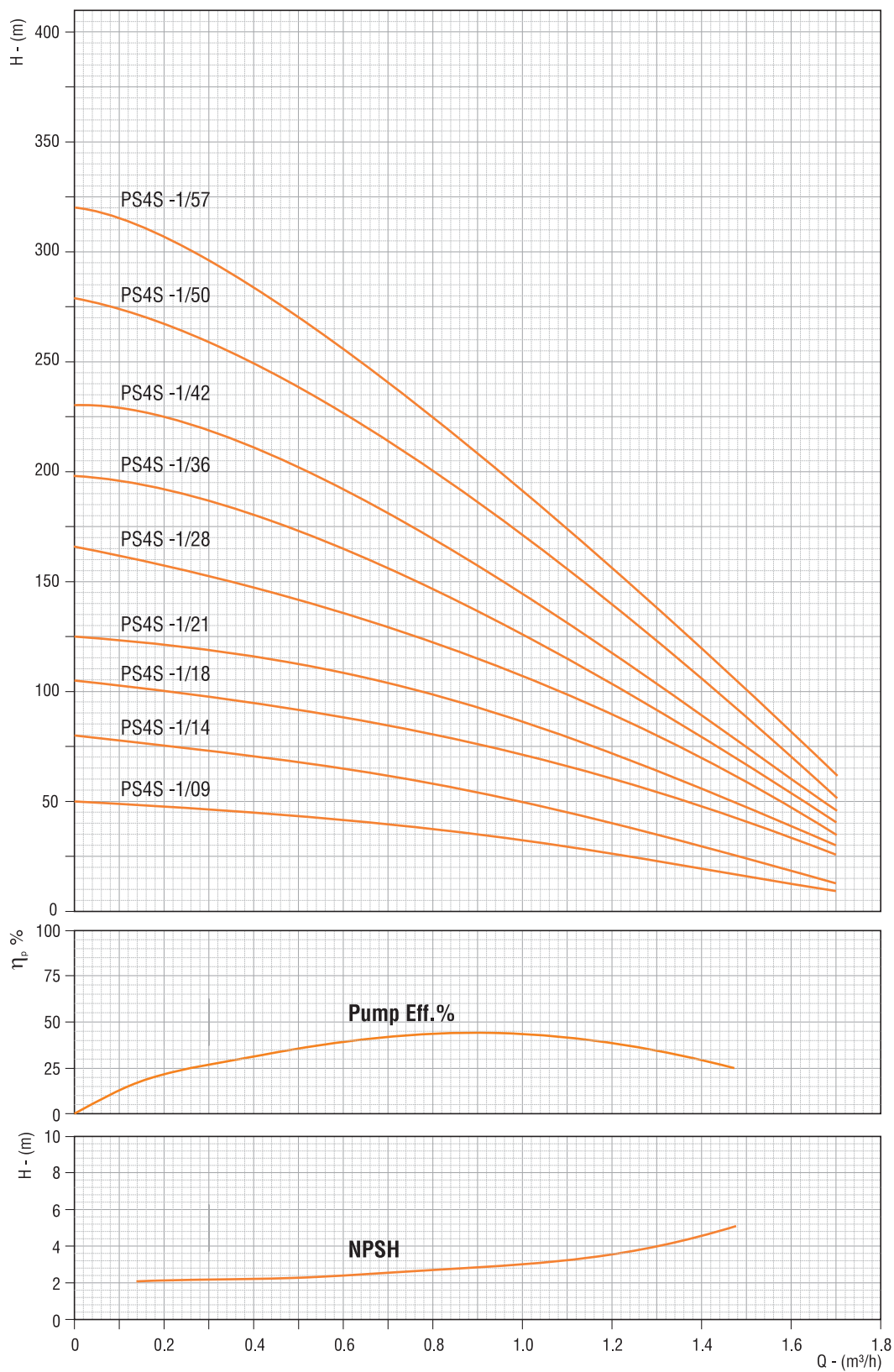


Nominal Diameter : 4"

Nominal Flow : 1m³/h

Outlet Size : 1¼"

PERFORMANCE CURVES



Nominal Diameter : 4"

Nominal Flow : 2m³/h

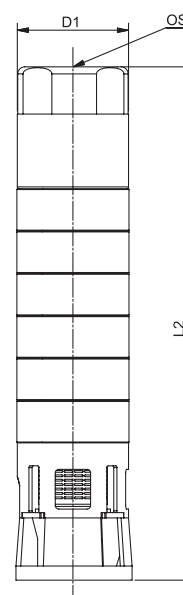
Outlet Size : 1¼"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	0.16	0.27	0.38	0.50	0.55	0.61	0.72
		m ³ /h	0	0.6	1.0	1.4	1.8	2.0	2.2	2.5
PS4S-2/06	0.37	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	35	28	26.5	25	23	20	17	8
PS4S-2/09	0.37		54	49	45	40	35	30	25	19
PS4S-2/13	0.55		76	72	68	60	48	42	36	27
PS4S-2/15	0.55		90	82	78	70	60	57	48	38
PS4S-2/18	0.75		120	115	102	92	80	72	63	50
PS4S-2/23	1.1		145	140	128	113	93	82	71	57
PS4S-2/28	1.5		180	172	160	142	121	110	98	77
PS4S-2/33	1.5		215	199	183	165	140	124	108	82
PS4S-2/40	2.2		249	232	218	195	165	144	127	92
PS4S-2/48	2.2		285	272	254	227	195	174	148	100
PS4S-2/55	3		335	306	282	250	209	183	158	110
PS4S-2/65	3		405	375	342	301	257	228	196	138
PS4S-2/75	4		460	435	403	363	305	272	235	164
PS4S-2/90	4		535	513	473	421	358	319	276	198

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP	D1	OS	L2	
PS4S-2/06	0.37	0.5	97	32	285	2.7
PS4S-2/09	0.37	0.5	97	32	351	3.5
PS4S-2/13	0.55	0.75	97	32	439	4.5
PS4S-2/15	0.55	0.75	97	32	483	5.0
PS4S-2/18	0.75	1	97	32	549	5.4
PS4S-2/23	1.1	1.5	97	32	659	6.1
PS4S-2/28	1.5	2	97	32	769	6.6
PS4S-2/33	1.5	2	97	32	1041	7.9
PS4S-2/40	2.2	3	97	32	1209	12.6
PS4S-2/48	2.2	3	97	32	1425	13.9
PS4S-2/55	3	4	97	32	1593	16.9
PS4S-2/65	3	4	97	32	1857	19.0
PS4S-2/75	4	5.5	97	32	2097	22.1
PS4S-2/90	4	5.5	97	32	2481	22.8

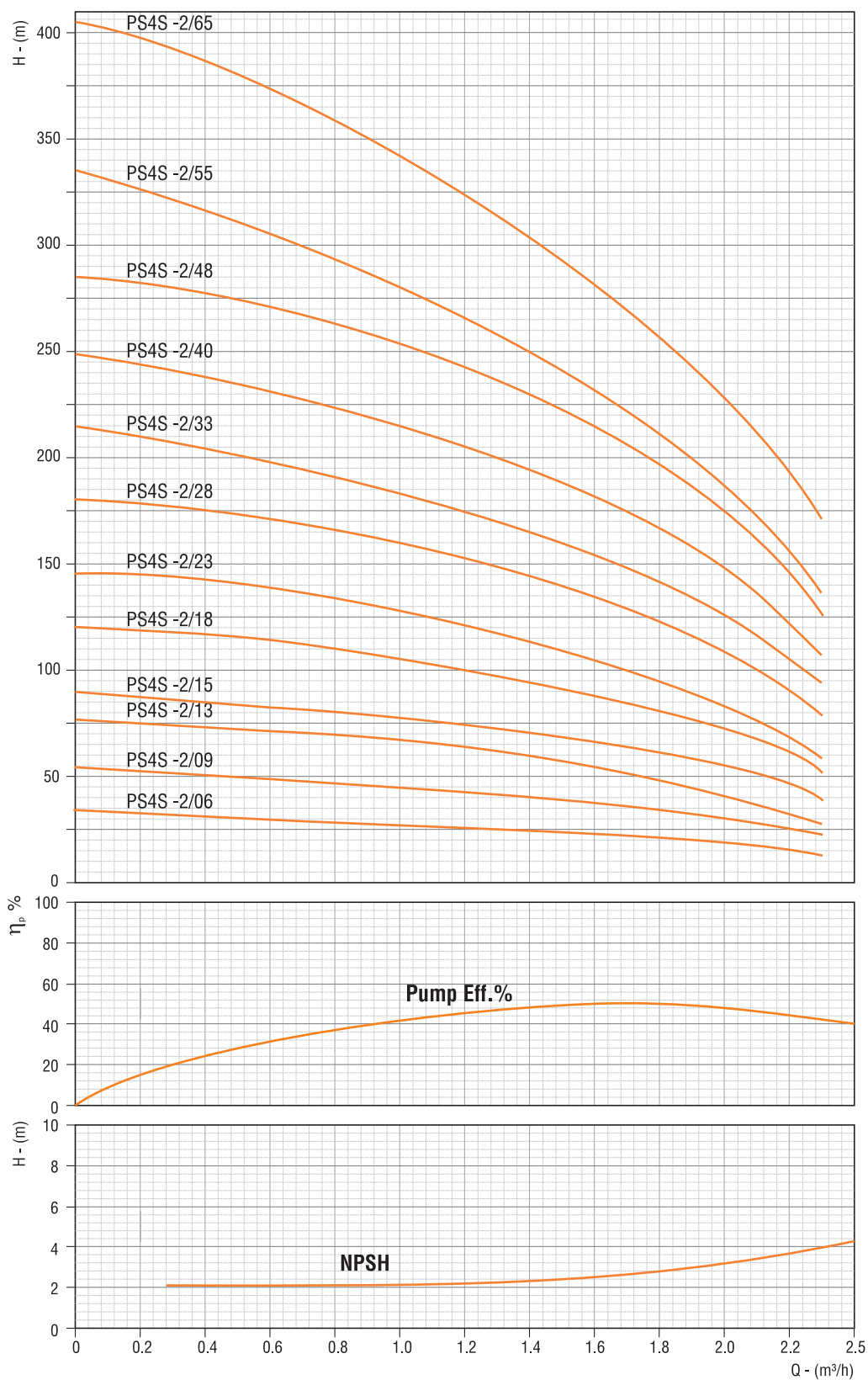


Nominal Diameter : 4"

Nominal Flow : 2m³/h

Outlet Size : 1¼"

PERFORMANCE CURVES



Nominal Diameter : 4"

Nominal Flow : 3m³/h

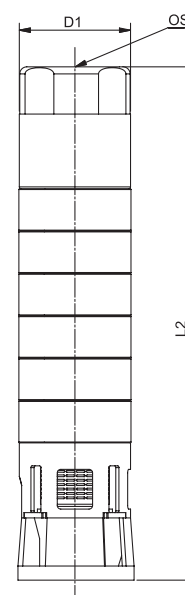
Outlet Size : 1¼"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	0.41	0.55	0.69	0.83	0.97	1.11	1.25
		m ³ /h	0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
PS4S -3/06	0.37	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	35	34	31	29	25	20	15	10
PS4S -3/09	0.55		56	52	50	45	40	32	24	14
PS4S -3/12	0.75		75	67	63	60	53	45	32	19
PS4S -3/15	1.1		98	86	82	76	67	55	41	25
PS4S -3/18	1.1		115	106	100	91	80	66	50	32
PS4S -3/22	1.5		140	129	121	111	99	80	60	35
PS4S -3/25	1.5		156	143	135	122	107	89	65	40
PS4S -3/29	2.2		185	169	156	144	129	108	80	50
PS4S -3/33	2.2		209	190	180	166	149	123	90	57
PS4S -3/39	3.0		245	223	210	195	177	153	117	75
PS4S -3/45	3.0		275	255	243	227	206	176	135	81
PS4S -3/52	4.0		320	295	280	263	240	207	160	97
PS4S -3/60	4.0		377	337	320	300	270	230	180	110

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP	D1	OS	L2	
PS4S -3/06	0.37	0.5	97	32	285	2.6
PS4S -3/09	0.55	0.75	97	32	351	3.3
PS4S -3/12	0.75	1	97	32	417	4.4
PS4S -3/15	1.1	1.5	97	32	483	5.0
PS4S -3/18	1.1	1.5	97	32	549	5.6
PS4S -3/22	1.5	2	97	32	637	6.5
PS4S -3/25	1.5	2	97	32	703	7.2
PS4S -3/29	2.2	3	97	32	791	8.5
PS4S -3/33	2.2	3	97	32	879	12.3
PS4S -3/39	3.0	4	97	32	1011	13.9
PS4S -3/45	3.0	4	97	32	1143	15.8
PS4S -3/52	4.0	5.5	97	32	1297	18.2
PS4S -3/60	4.0	5.5	97	32	1473	21.1

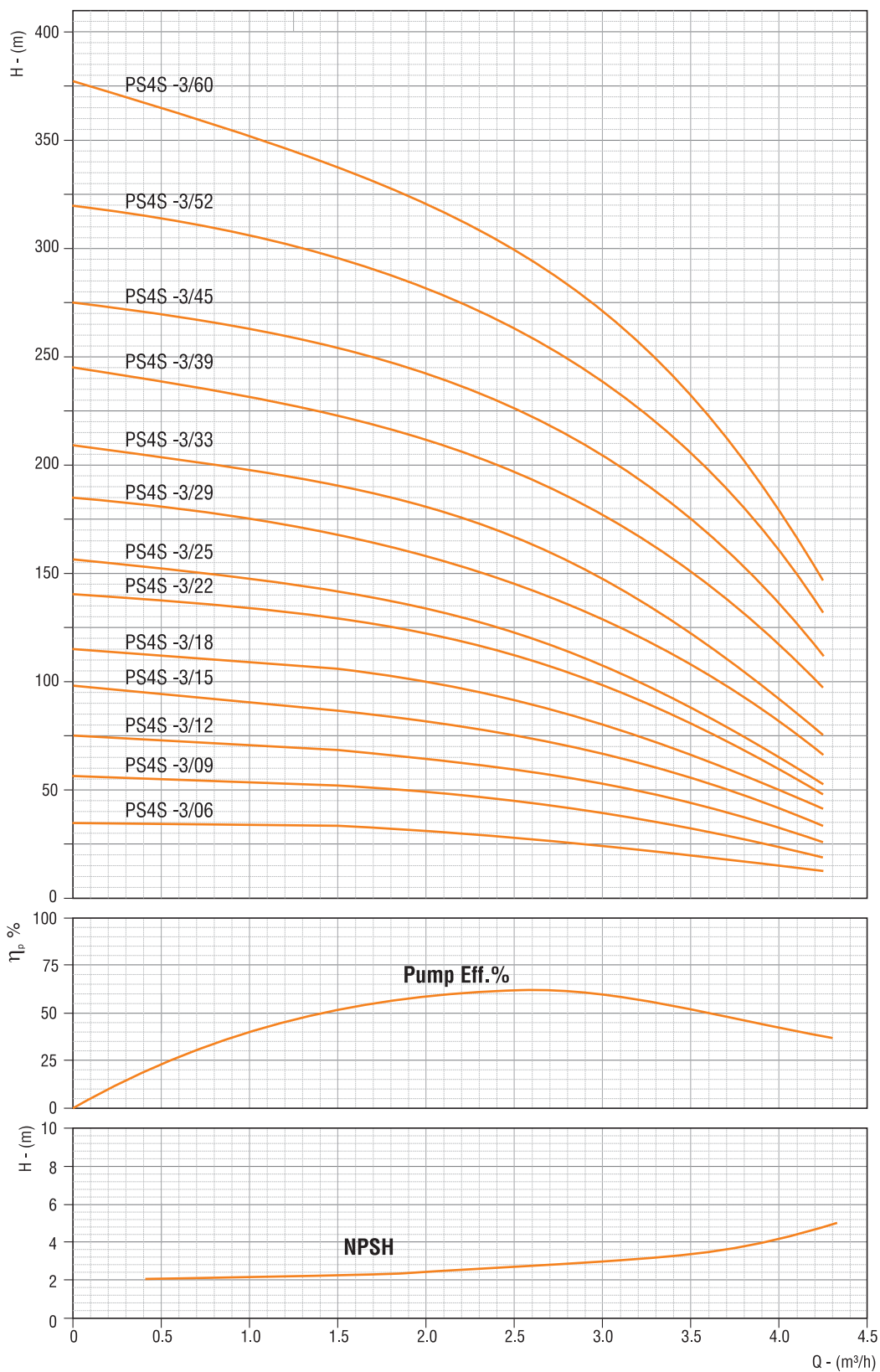


Nominal Diameter : 4"

Nominal Flow : 3m³/h

Outlet Size : 1¼"

PERFORMANCE CURVES



Nominal Diameter : 4"

Nominal Flow : 5m³/h

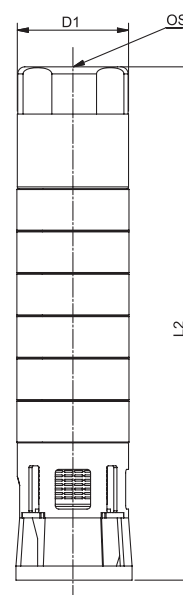
Outlet Size : 1½"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	0.55	0.83	1.11	1.39	1.67	1.94
		m ³ /h	0	2.0	3.0	4.0	5.0	6.0	7.0
PS4S -5/04	0.37	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	28	26	22.5	20	17	12	5
PS4S -5/06	0.55		39	36	32	28	22	17	10
PS4S -5/08	0.75		46	42.5	40	37	32	23	15
PS4S -5/12	1.1		75	71	65	57	48	38	24
PS4S -5/17	1.5		108	94	88	80	68	51	33
PS4S -5/21	2.2		138	121	112	99	84	65	42
PS4S -5/25	2.2		162	143	131	119	102	77	53
PS4S -5/33	3.0		202	179	165	147	128	100	68
PS4S -5/38	4.0		241	215	198	177	152	119	81
PS4S -5/44	4.0		280	244	223	199	170	134	92
PS4S -5/52	5.5		324	281	258	230	199	156	108
PS4S -5/60	5.5		360	322	300	262	236	190	130
PS4S -5/75	7.5		487	457	392	352	302	237	168

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP	D1	OS	L2	
PS4S -5/04	0.37	0.5	97	40	248	2.8
PS4S -5/06	0.55	0.75	97	40	296	2.9
PS4S -5/08	0.75	1	97	40	344	3.4
PS4S -5/12	1.1	1.5	97	40	440	4.9
PS4S -5/17	1.5	2	97	40	560	6.0
PS4S -5/21	2.2	3	97	40	656	6.7
PS4S -5/25	2.2	3	97	40	752	7.4
PS4S -5/33	3.0	4	97	40	1111	12.3
PS4S -5/38	4.0	5.5	97	40	1241	13.7
PS4S -5/44	4.0	5.5	97	40	1397	16.0
PS4S -5/52	5.5	7.5	97	40	1631	18.6
PS4S -5/60	5.5	7.5	97	40	1839	22.0
PS4S -5/75	7.5	10	97	40	2223	27.0

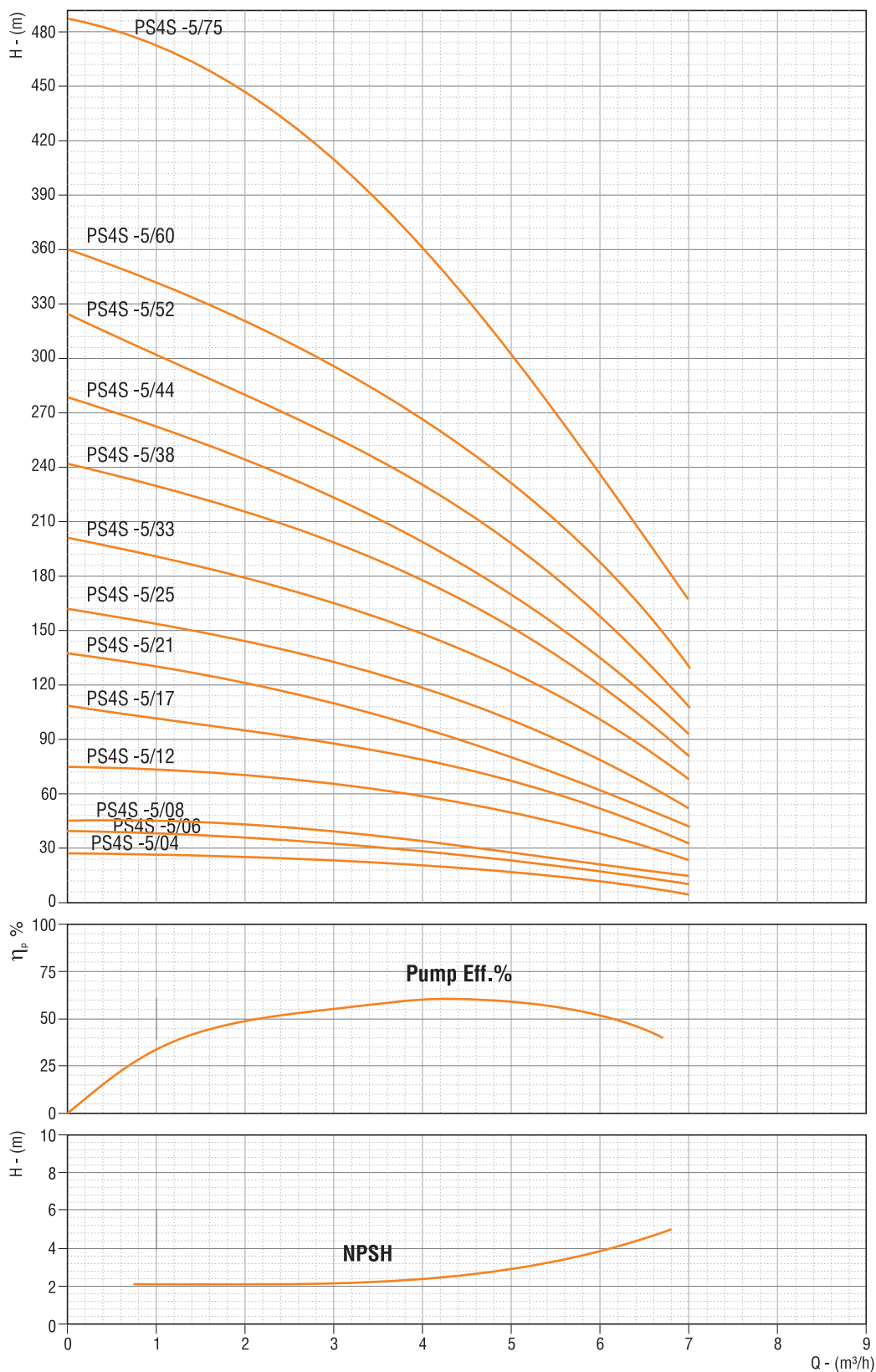


Nominal Diameter : 4"

Nominal Flow : 5m³/h

Outlet Size : 1½"

PERFORMANCE CURVES



Nominal Diameter : 4"

Nominal Flow : 8m³/h

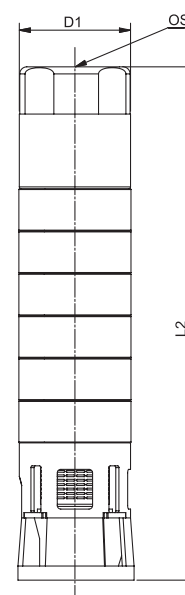
Outlet Size : 2"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps m ³ /h	0	0.83	1.11	1.39	1.66	1.94	2.22	2.50	2.78	3.05
			0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
PS4S -8/05	0.75	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	32	27	25	23.5	22	20	18	16	13.5	11
PS4S -8/07	1.1		42	38.5	37	35.5	34	31.5	27	24.5	20	16
PS4S -8/09	1.5		55	50	48.5	46	44	41.5	37.5	33.5	28	22
PS4S -8/10	1.5		63	55	52	50	48	44	40	36	30	24
PS4S -8/12	2.2		74	68.5	67	64	61	56	51	44.5	37	27.5
PS4S -8/15	2.2		94	85.5	82.5	79	74.8	69	63	56	46.5	36
PS4S -8/18	3.0		108	104.5	101	96	91	84	76	66.5	56	44
PS4S -8/22	4.0		132	126	121	115	108	99	90	79	67	54
PS4S -8/25	4.0		155	141	136	129	121	112	102	91	78	62
PS4S -8/30	5.5		182	164	156	148	139	130	120	107	90	71
PS4S -8/34	5.5		202	185	179	171	162	153	140	126	107	85
PS4S -8/37	5.5		230	204	195	185	173	162	146	131	112	88
PS4S -8/44	7.5		262	237	228	217	205	191	177	156	129	100
PS4S -8/50	7.5		304	272	261	249	235	220	200	176	146	112

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP	D1	OS	L2	
PS4S -8/05	0.75	1	97	50	405	3.7
PS4S -8/07	1.1	1.5	97	50	477	5.2
PS4S -8/09	1.5	2	97	50	549	6.0
PS4S -8/10	1.5	2	97	50	585	6.3
PS4S -8/12	2.2	3	97	50	657	7.5
PS4S -8/15	2.2	3	97	50	767	8.6
PS4S -8/18	3.0	4	97	50	897	10.0
PS4S -8/22	4.0	5.5	97	50	1041	11.6
PS4S -8/25	4.0	5.5	97	50	1149	12.8
PS4S -8/30	5.5	7.5	97	50	1329	15.5
PS4S -8/34	5.5	7.5	97	50	1473	17.3
PS4S -8/37	5.5	7.5	97	50	1563	19.0
PS4S -8/44	7.5	10	97	50	1857	22.3
PS4S -8/50	7.5	10	97	50	2097	24.2

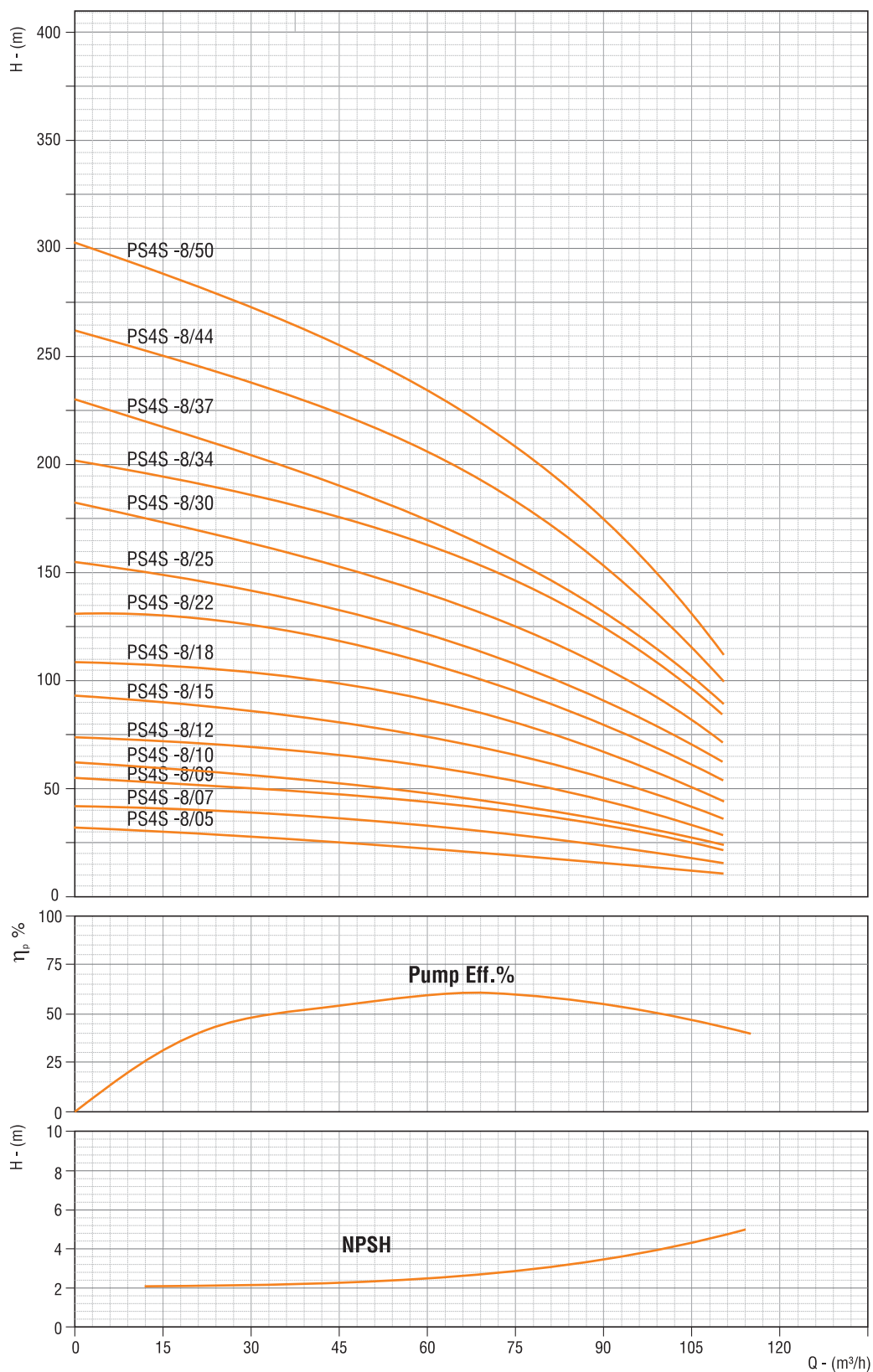


Nominal Diameter : 4"

Nominal Flow : 8m³/h

Outlet Size : 2"

PERFORMANCE CURVES



Nominal Diameter : **4"**

Nominal Flow : **14m³/h**

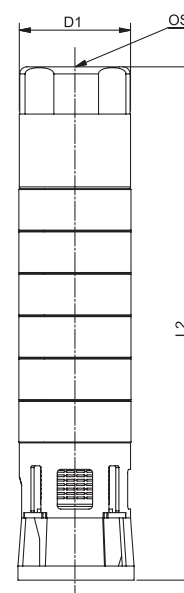
Outlet Size : **2"**

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.0
		m ³ /h	0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0
PS4S -14/05	1.5	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	31	30	29	28	26	23	20	16	12
PS4S -14/07	2.2		42	41	40	39	37	33	29	24	15
PS4S -14/09	3.0		56	55	53	51	47	43	38	32	25
PS4S -14/10	3.0		65	63	60	57	54	49	43	37	29
PS4S -14/11	3.7		75	72	70	66	62	56	50	42	32
PS4S -14/13	4.0		85	83	80	75	70	64	56	47	36
PS4S -14/16	5.5		104	102	99	95	89	81	71	59	44
PS4S -14/18	5.5		119	115	112	107	100	91	81	56	50
PS4S -14/22	7.5		141	136	132	127	120	111	96	78	58
PS4S -14/25	7.5		161	156	152	145	137	125	110	91	68

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP	D1	OS	L2	
PS4S -14/05	1.5	2	97	50	568	6.2
PS4S -14/07	2.2	3	97	50	698	7.7
PS4S -14/09	3.0	4	97	50	828	9.2
PS4S -14/10	3.0	4	97	50	893	10.0
PS4S -14/11	3.7	5	97	50	958	10.7
PS4S -14/13	4.0	5.5	97	50	1088	12.1
PS4S -14/16	5.5	7.5	97	50	1283	14.2
PS4S -14/18	5.5	7.5	97	50	1413	15.6
PS4S -14/22	7.5	10	97	50	1673	18.6
PS4S -14/25	7.5	10	97	50	1868	21.0

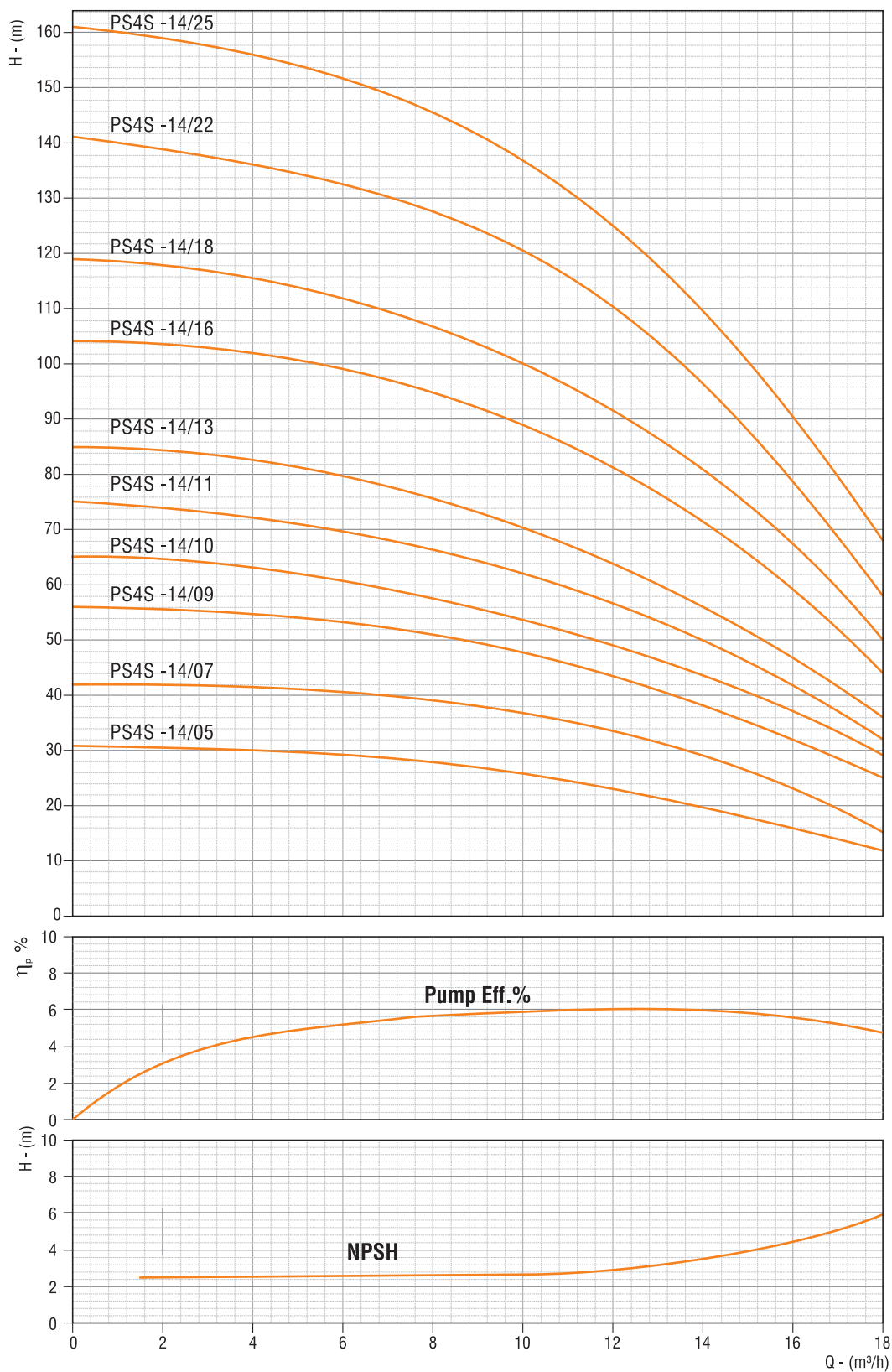


Nominal Diameter : 4"

Nominal Flow : 14m³/h

Outlet Size : 2"

PERFORMANCE CURVES



Nominal Diameter : 6"

Nominal Flow : 14m³/h

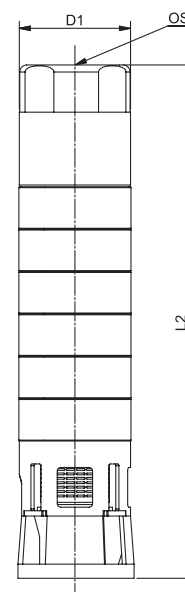
Outlet Size : 2"/2½"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	1.66	2.22	2.78	3.33	3.89	4.44	5.00
		m ³ /h	0	6.0	8.0	10.0	12.0	14.0	16.0	18.0
PS6S -14/05	3	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	59	52	50	46	42	35	26	17
PS6S -14/06	3		70	64	60	56	52	44	33	22
PS6S -14/07	3.7		82	74	71	67	60	52	40	28
PS6S -14/08	4		94	84	80	75	68	59	45	31
PS6S -14/09	4.5		104	93	90	84	77	66	50	33
PS6S -14/10	4.5		118	104	100	94	85	72	56	36
PS6S -14/11	5.5		130	115	108	102	92	79	60	38
PS6S -14/12	5.5		140	123	116	109	99	84	64	42
PS6S -14/13	5.5		150	130	124	116	107	88	68	46
PS6S -14/14	7.5		160	142	135	127	116	99	78	53
PS6S -14/15	7.5		172	153	146	137	127	109	87	60
PS6S -14/16	7.5		184	164	156	147	135	116	92	64
PS6S -14/17	7.5		196	174	166	156	143	123	96	67
PS6S -14/18	9.3		204	184	176	166	150	128	100	71
PS6S -14/19	9.3		218	189	184	172	156	135	107	75
PS6S -14/20	9.3		228	202	191	179	163	140	112	79
PS6S -14/21	9.3		240	209	197	184	168	147	116	83
PS6S -14/22	11		254	219	205	192	176	153	121	90
PS6S -14/23	11		262	236	217	204	186	163	129	96
PS6S -14/24	11		280	244	232	217	199	172	136	96
PS6S -14/25	11		290	257	244	230	211	183	144	100
PS6S -14/26	11		302	267	254	239	220	190	150	104
PS6S -14/27	13		318	278	265	248	228	197	156	110
PS6S -14/28	13		324	290	276	260	237	204	161	116
PS6S -14/29	13		338	300	285	268	244	212	168	118
PS6S -14/30	13		350	308	292	275	252	218	172	120
PS6S -14/31	15		360	320	304	284	260	227	180	127
PS6S -14/32	15		374	332	316	296	272	236	189	132

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -14/05	3	4	1	139	50 / 65	484	11.3
PS6S -14/06	3	4	1	139	50 / 65	523	12.0
PS6S -14/07	3.7	5	1	139	50 / 65	562	13.0
PS6S -14/08	4	5.5	1	139	50 / 65	601	13.8
PS6S -14/09	4.5	6	1	139	50 / 65	640	14.8
PS6S -14/10	4.5	6	1 / 2	139 / 143	50 / 65	679	15.7
PS6S -14/11	5.5	7.5	1 / 2	139 / 143	50 / 65	718	16.7
PS6S -14/12	5.5	7.5	1 / 2	139 / 143	50 / 65	757	17.6
PS6S -14/13	5.5	7.5	1 / 2	139 / 143	50 / 65	796	18.6
PS6S -14/14	7.5	10	1 / 2	139 / 143	50 / 65	835	19.5
PS6S -14/15	7.5	10	1 / 2	139 / 143	50 / 65	874	20.4
PS6S -14/16	7.5	10	1 / 2	139 / 143	50 / 65	913	21.2
PS6S -14/17	7.5	10	1 / 2	139 / 143	50 / 65	952	22.1
PS6S -14/18	9.3	12.5	1 / 2	139 / 143	50 / 65	991	23.1
PS6S -14/19	9.3	12.5	1 / 2	139 / 143	50 / 65	1030	24.0
PS6S -14/20	9.3	12.5	1 / 2	139 / 143	50 / 65	1069	25.0
PS6S -14/21	9.3	12.5	1 / 2	139 / 143	50 / 65	1108	25.9
PS6S -14/22	11	15	1 / 2	139 / 143	50 / 65	1147	26.9
PS6S -14/23	11	15	1 / 2	139 / 143	50 / 65	1186	27.8
PS6S -14/24	11	15	1 / 2	139 / 143	50 / 65	1225	28.8
PS6S -14/25	11	15	1 / 2	139 / 143	50 / 65	1264	30.0
PS6S -14/26	11	15	1 / 2	139 / 143	50 / 65	1303	30.8
PS6S -14/27	13	17.5	1 / 2	139 / 143	50 / 65	1342	31.8
PS6S -14/28	13	17.5	1 / 2	139 / 143	50 / 65	1381	32.8
PS6S -14/29	13	17.5	1 / 2	139 / 143	50 / 65	1420	33.7
PS6S -14/30	13	17.5	1 / 2	139 / 143	50 / 65	1459	34.6
PS6S -14/31	15	20	1 / 2	139 / 143	50 / 65	1500	35.6
PS6S -14/32	15	20	1 / 2	139 / 143	50 / 65	1537	36.7

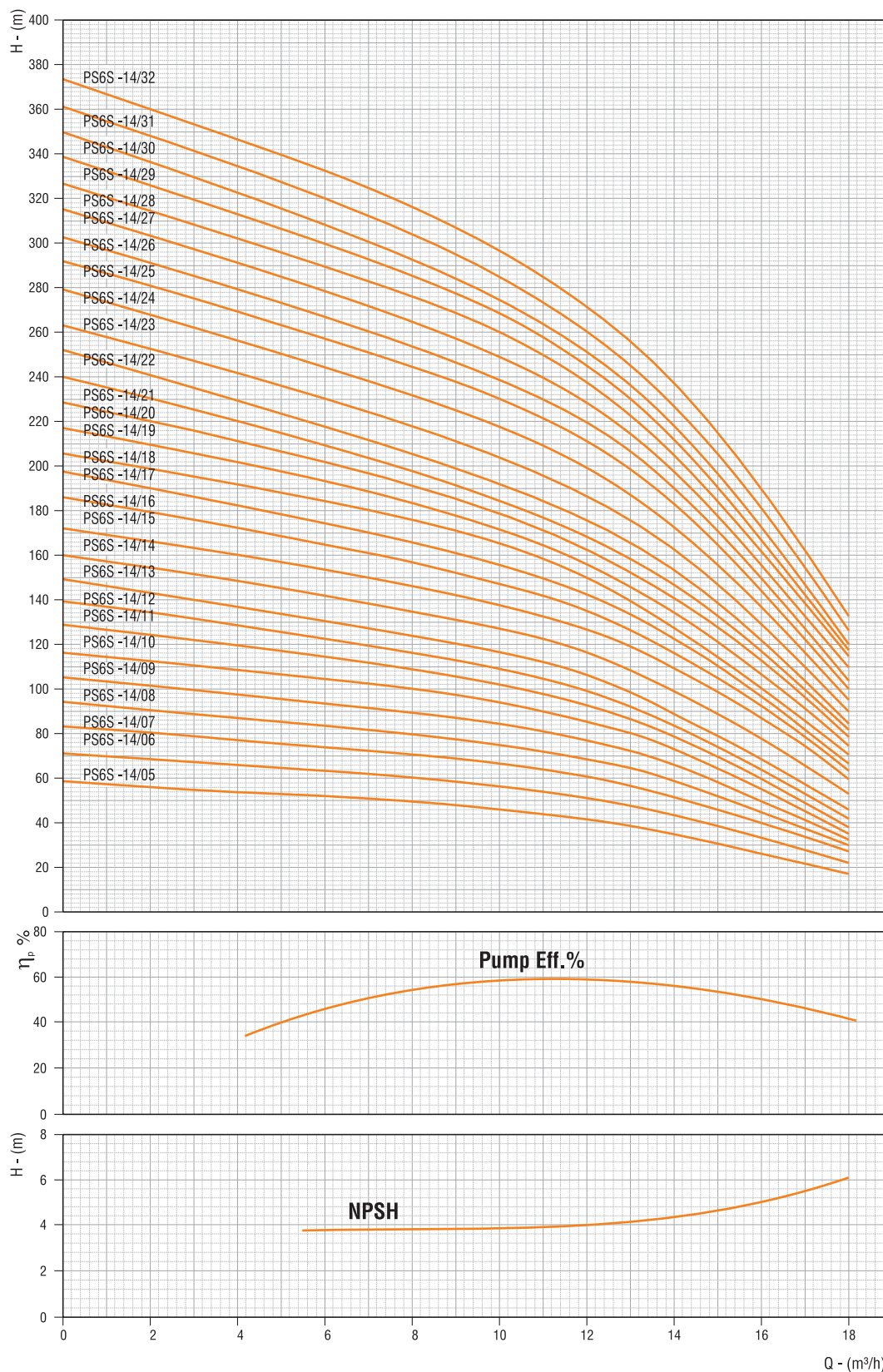


Nominal Diameter : **6"**

Nominal Flow : **14m³/h**

Outlet Size : **2"/2½"***

PERFORMANCE CURVES



Refer General Information for performance curve conditions and for other details.

Curve tolerance according to ISO : 9906, Annex - A.

* - Optional.

Nominal Diameter : 6"

Nominal Flow : 14m³/h

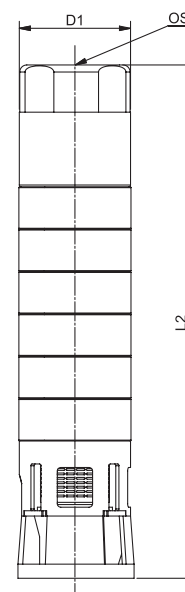
Outlet Size : 2"/2½"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	1.66	2.22	2.78	3.33	3.89	4.44	5.00
		m ³ /h	0	6.0	8.0	10.0	12.0	14.0	16.0	18.0
PS6S -14/33	15	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	384	343	330	310	282	242	192	138
PS6S -14/34	15		396	356	340	320	292	251	200	145
PS6S -14/35	15		408	367	349	329	300	259	208	154
PS6S -14/36	18.5		420	376	359	337	308	267	216	160
PS6S -14/37	18.5		430	385	368	347	316	275	222	167
PS6S -14/38	18.5		440	395	376	355	324	281	229	172
PS6S -14/39	18.5		454	404	386	363	332	289	237	180
PS6S -14/40	18.5		464	412	395	372	340	298	244	188
PS6S -14/41	18.5		476	422	404	382	348	305	253	195
PS6S -14/42	18.5		488	432	413	391	359	313	260	203
PS6S -14/43	22		500	443	424	400	368	320	268	212
PS6S -14/44	22		510	453	434	411	376	329	276	220
PS6S -14/45	22		520	464	444	420	386	340	284	230
PS6S -14/46	22		528	474	455	432	396	348	292	238
PS6S -14/47	22		538	483	463	440	405	358	302	244
PS6S -14/48	22		550	491	471	448	416	368	312	252
PS6S -14/49	22		560	501	481	458	424	380	322	260
PS6S -14/50	22		566	512	491	468	435	389	333	268

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -14/33	15	20	1 / 2	139 / 143	50 / 65	1576	38.0
PS6S -14/34	15	20	1 / 2	139 / 143	50 / 65	1615	39.0
PS6S -14/35	15	20	1 / 2	139 / 143	50 / 65	1654	40.0
PS6S -14/36	18.5	25	1 / 2	139 / 143	50 / 65	1693	41.1
PS6S -14/37	18.5	25	1 / 2	139 / 143	50 / 65	1732	42.1
PS6S -14/38	18.5	25	1 / 2	139 / 143	50 / 65	1771	43.1
PS6S -14/39	18.5	25	1 / 2	139 / 143	50 / 65	1810	44.0
PS6S -14/40	18.5	25	1 / 2	139 / 143	50 / 65	1849	45.3
PS6S -14/41	18.5	25	1 / 2	139 / 143	50 / 65	1888	46.2
PS6S -14/42	18.5	25	1 / 2	139 / 143	50 / 65	1927	47.2
PS6S -14/43	22	30	1 / 2	139 / 143	50 / 65	1966	48.1
PS6S -14/44	22	30	1 / 2	139 / 143	50 / 65	2005	49.1
PS6S -14/45	22	30	1 / 2	139 / 143	50 / 65	2044	50.0
PS6S -14/46	22	30	1 / 2	139 / 143	50 / 65	2083	51.2
PS6S -14/47	22	30	1 / 2	139 / 143	50 / 65	2122	51.9
PS6S -14/48	22	30	1 / 2	139 / 143	50 / 65	2161	52.9
PS6S -14/49	22	30	1 / 2	139 / 143	50 / 65	2200	53.8
PS6S -14/50	22	30	1 / 2	139 / 143	50 / 65	2239	54.8

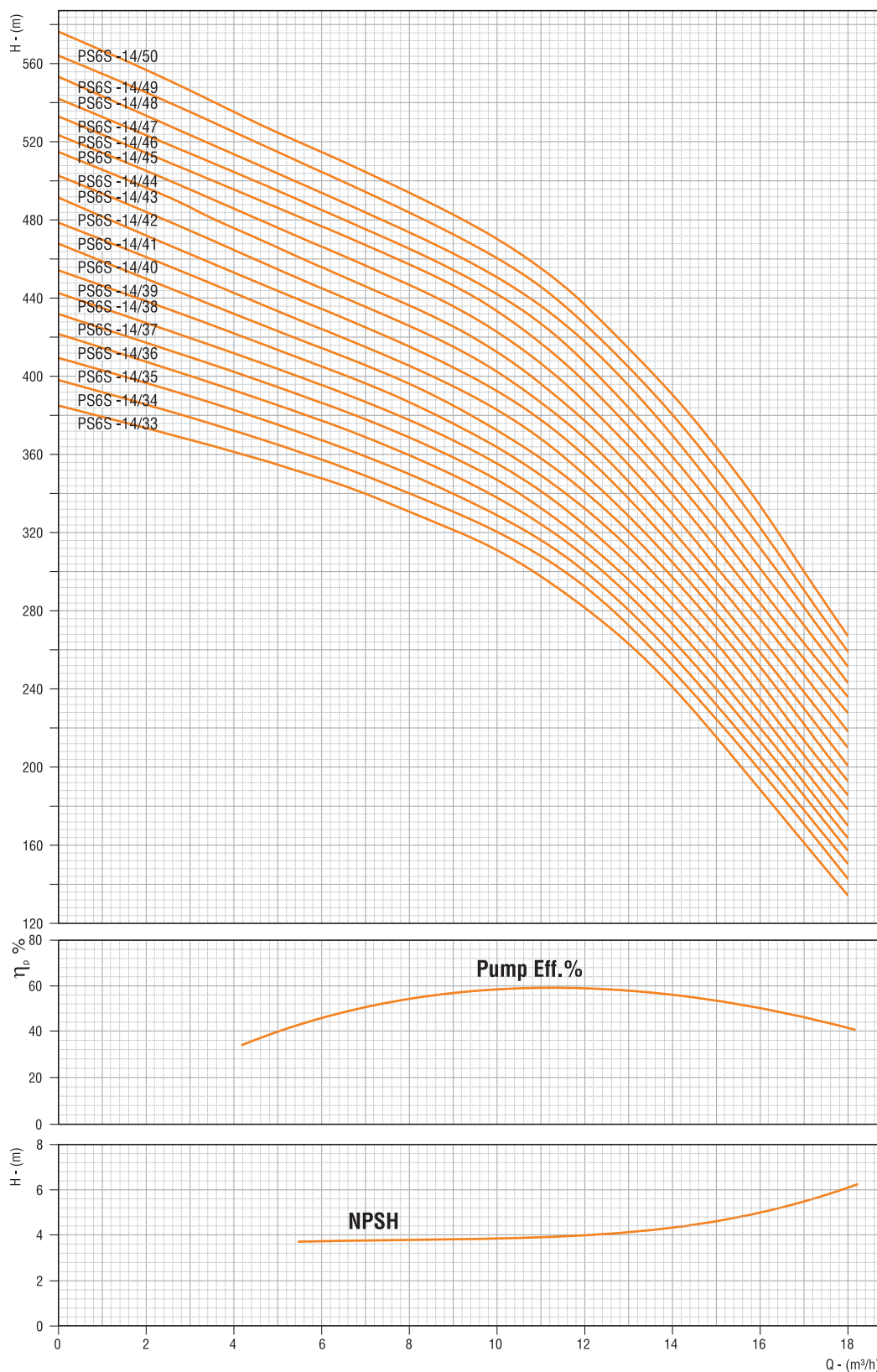


Nominal Diameter : **6"**

Nominal Flow : **14m³/h**

Outlet Size : **2"/2½"***

PERFORMANCE CURVES



Refer General Information for performance curve conditions and for other details.

Curve tolerance according to ISO : 9906, Annex - A.

* - Optional.

Nominal Diameter : 6"

Nominal Flow : 18m³/h

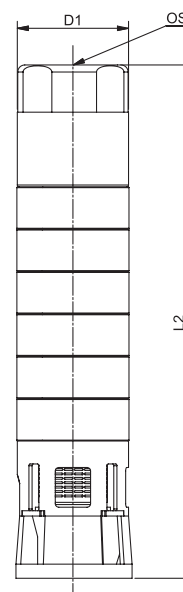
Outlet Size : 2½"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	1.66	2.22	2.78	3.33	3.89	4.44	5.00	5.56	6.11	6.67
		m ³ /h	0	6	8	10	12	14	16	18	20	22	24
PS6S -18/03	2.2	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	40	38.5	38	37	36	33	29	26	22	16	11
PS6S -18/04	2.2		48	47	46	45	44	41	38	33.5	29	14	18
PS6S -18/05	3.7		58	56	55	54	52	49	46	42	37	31	25.5
PS6S -18/06	3.7		70	66	65	63	61	59	56	52	46	40	33
PS6S -18/07	4.5		82	78	77	75	73	70	66	61	54	47	40
PS6S -18/08	5.5		95	91	89	86	84	80	76	70	63	54	45
PS6S -18/09	5.5		106	102	100	98	96	92	87	80	72.5	63	54
PS6S -18/10	7.5		118	103	111.5	109	106	102	98	92	83	72	60
PS6S -18/11	7.5		130	125	122	119	116	112	107	100	90	78	66
PS6S -18/12	7.5		142	135.5	133	130	126	122	116	108	97	84	70
PS6S -18/13	9.3		152	146	144	140	136	131	124	116	105	91	76
PS6S -18/14	9.3		164	157	154	151	146.5	141	134	124	112	98	82
PS6S -18/15	9.3		175	169	166	162	158	152	145.5	136	122	106	90
PS6S -18/16	11		188	179	176	172	168	162	155	145	131	104	97
PS6S -18/17	11		198	190	186	183	178	172	164	154	140	122	103
PS6S -18/18	11		209	199	196	192	188	182	174	164	150	132	111

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -18/03	2.2	3	1	139	65	419	7.9
PS6S -18/04	2.2	3	1	139	65	463	9.0
PS6S -18/05	3.7	5	1	139	65	507	11.5
PS6S -18/06	3.7	5	1	139	65	551	12.8
PS6S -18/07	4.5	6	1	139	65	595	14.1
PS6S -18/08	5.5	7.5	1 / 2	139 / 143	65	639	15.4
PS6S -18/09	5.5	7.5	1 / 2	139 / 143	65	683	16.4
PS6S -18/10	7.5	10	1 / 2	139 / 143	65	727	17.6
PS6S -18/11	7.5	10	1 / 2	139 / 143	65	771	18.5
PS6S -18/12	7.5	10	1 / 2	139 / 143	65	815	19.3
PS6S -18/13	9.3	12.5	1 / 2	139 / 143	65	859	21.6
PS6S -18/14	9.3	12.5	1 / 2	139 / 143	65	903	22.6
PS6S -18/15	9.3	12.5	1 / 2	139 / 143	65	947	23.3
PS6S -18/16	11	15	1 / 2	139 / 143	65	991	24.0
PS6S -18/17	11	15	1 / 2	139 / 143	65	1035	24.9
PS6S -18/18	11	15	1 / 2	139 / 143	65	1079	25.8

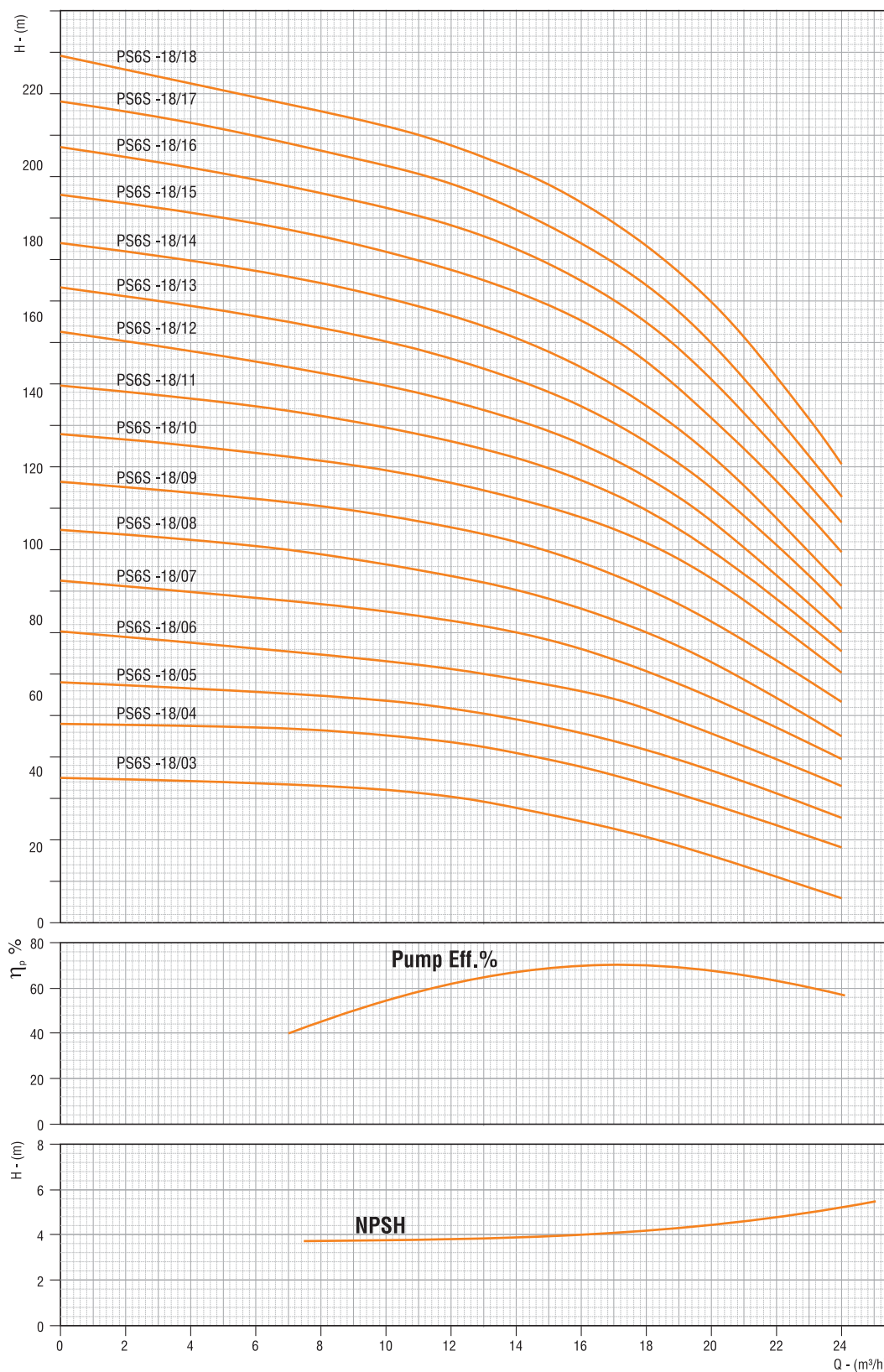


Nominal Diameter : 6"

Nominal Flow : 18m³/h

Outlet Size : 2½"

PERFORMANCE CURVES



Nominal Diameter : 6"

Nominal Flow : 18m³/h

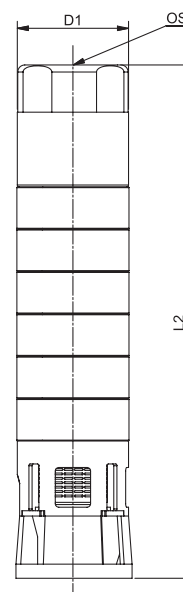
Outlet Size : 2½"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	1.66	2.22	2.78	3.33	3.89	4.44	5.00	5.56	6.11	6.67
		m ³ /h	0	6	8	10	12	14	16	18	20	22	24
PS6S -18/19	13	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	226	216	210	204	198	190	180	168	152	133	113
PS6S -18/20	13		238	225	220	215	208	201	192	180	164	144	120
PS6S -18/21	13		250	236	232	227	220	212	204	192	174	152	129
PS6S -18/22	15		260	248	242	237	232	224	215	202	184	162	137
PS6S -18/23	15		274	258	252	247	240	232	222	209	191	198	143
PS6S -18/24	15		284	264	262	256	248	240	230	216	197	175	149
PS6S -18/25	18.5		296	278	271	264	256	248	236	223	204	180	154
PS6S -18/26	18.5		304	287	280	272	264	256	244	228	210	185	159
PS6S -18/27	18.5		316	298	290	283	274	264	252	237	216	191	164
PS6S -18/28	18.5		330	308	301	292	284	274	261	244	223	197	168
PS6S -18/29	18.5		340	319	311	302	292	284	272	255	231	204	175
PS6S -18/30	18.5		354	337	329	312	303	292	280	264	240	210	182
PS6S -18/31	22		364	348	340	323	313	303	290	272	248	219	188
PS6S -18/32	22		376	360	351	332	323	312	298	280	256	227	198
PS6S -18/33	22		384	370	361	342	331	320	305	287	264	236	207
PS6S -18/34	22		396	379	370	351	340	326	312	294	271	244	215
PS6S -18/35	22		408	389	379	359	348	336	320	302	279	252	223
PS6S -18/36	22		420	399	388	368	356	343	328	309	287	260	231
PS6S -18/38	22		432	404	392	384	370	356	340	320	296	268	236
PS6S -18/40	26		453	427	416	405	391	375	356	332	305	274	244
PS6S -18/42	30		481	450	438	425	412	395	370	348	320	286	249
PS6S -18/44	30		504	472	460	448	432	413	392	367	336	300	262
PS6S -18/46	30		520	495	482	468	452	432	411	386	352	312	272
PS6S -18/48	30		541	517	506	492	476	456	433	405	368	324	279

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -18/19	13	17.5	1 / 2	139 / 143	65	1123	26.7
PS6S -18/20	13	17.5	1 / 2	139 / 143	65	1167	27.6
PS6S -18/21	13	17.5	1 / 2	139 / 143	65	1211	28.5
PS6S -18/22	15	20	1 / 2	139 / 143	65	1255	31.1
PS6S -18/23	15	20	1 / 2	139 / 143	65	1299	32.0
PS6S -18/24	15	20	1 / 2	139 / 143	65	1343	32.8
PS6S -18/25	18.5	25	1 / 2	139 / 143	65	1387	33.6
PS6S -18/26	18.5	25	1 / 2	139 / 143	65	1431	34.5
PS6S -18/27	18.5	25	1 / 2	139 / 143	65	1475	35.4
PS6S -18/28	18.5	25	1 / 2	139 / 143	65	1519	36.8
PS6S -18/29	18.5	25	1 / 2	139 / 143	65	1561	37.7
PS6S -18/30	18.5	25	1 / 2	139 / 143	65	1607	38.7
PS6S -18/31	22	30	1 / 2	139 / 143	65	1651	39.6
PS6S -18/32	22	30	1 / 2	139 / 143	65	1695	40.6
PS6S -18/33	22	30	1 / 2	139 / 143	65	1739	41.5
PS6S -18/34	22	30	1 / 2	139 / 143	65	1783	42.5
PS6S -18/35	22	30	1 / 2	139 / 143	65	1827	43.4
PS6S -18/36	22	30	1 / 2	139 / 143	65	1871	44.4
PS6S -18/38	22	30	1 / 2	139 / 143	65	1959	46.3
PS6S -18/40	26	35	1 / 2	139 / 143	65	2047	48.2
PS6S -18/42	30	40	1 / 2	139 / 143	65	2135	50.1
PS6S -18/44	30	40	1 / 2	139 / 143	65	2223	52.0
PS6S -18/46	30	40	1 / 2	139 / 143	65	2311	54.0
PS6S -18/48	30	40	1 / 2	139 / 143	65	2399	55.8

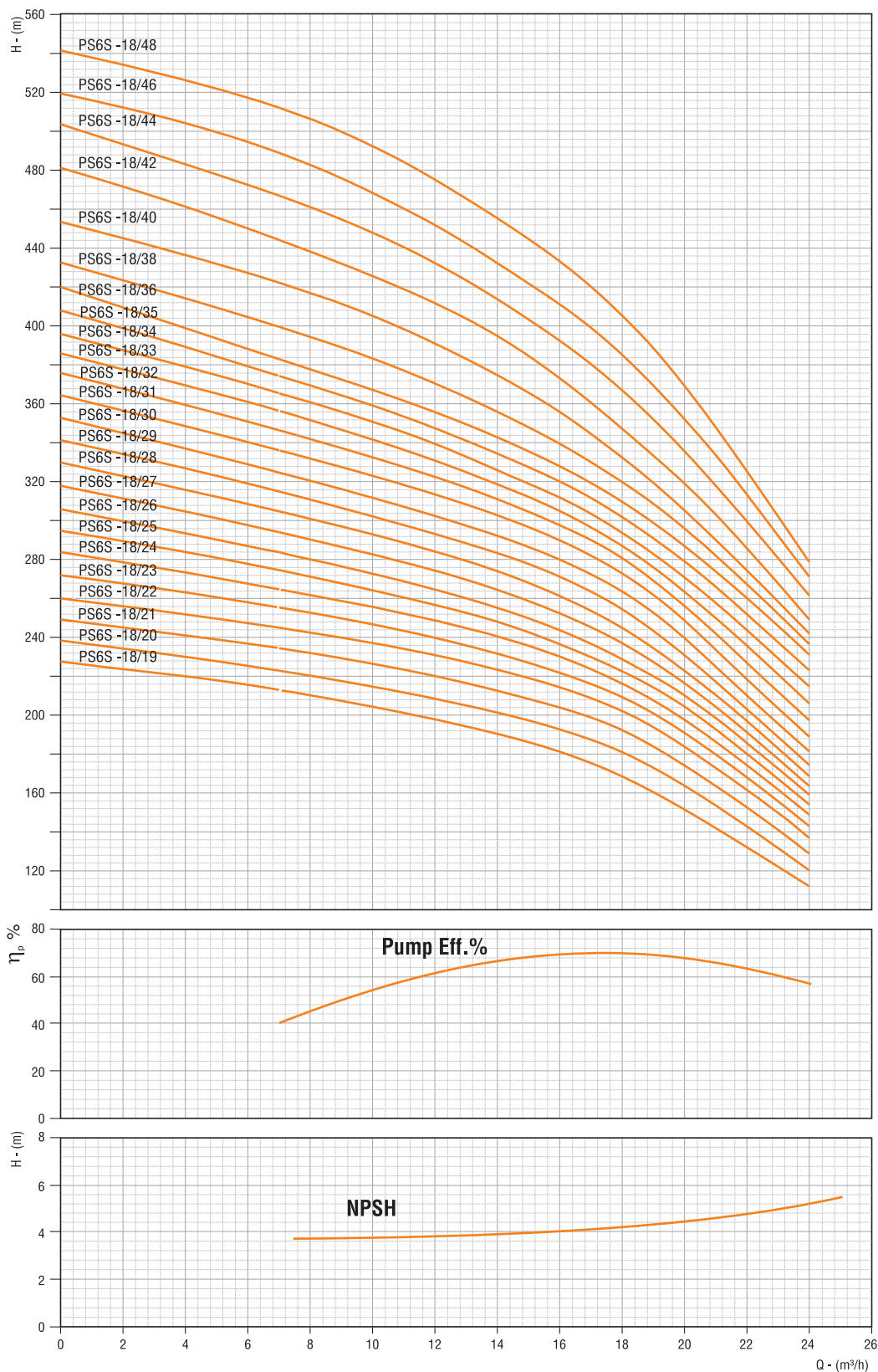


Nominal Diameter : **6"**

Nominal Flow : **18m³/h**

Outlet Size : **2½"**

PERFORMANCE CURVES



Nominal Diameter : 6"

Nominal Flow : 22m³/h

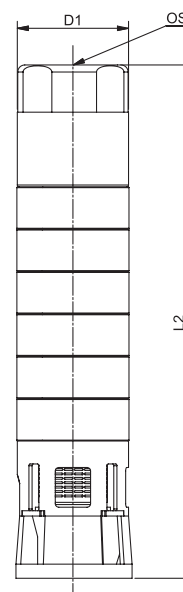
Outlet Size : 2½"/3"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	2.77	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.77
		m ³ /h	0	10	12	14	16	18	20	22	24	26	28
PS6S -22/05	3.7	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	57	52	50	49	48	46	43	40	35	30	24
PS6S -22/06	4.5		69	62	60	58	56	54	49	45	41	35	27
PS6S -22/07	5.5		80	71	69	66	64	60	57	52	47	40	32
PS6S -22/08	5.5		92	84	81	78	76	72	68	62	55	47	38
PS6S -22/09	7.5		100	94	91	89	86	82	77	71	64	55	45
PS6S -22/10	7.5		114	104	101	98	95	92	86	79	71	61	50
PS6S -22/11	9.3		125	114	110	107	104	100	95	87	78	68	57
PS6S -22/12	9.3		137	126	123	120	116	110	105	95	84	74	62
PS6S -22/13	11		150	139	135	131	125	120	113	104	94	81	69
PS6S -22/14	11		160	148	145	141	136	130	121	111	100	88	75
PS6S -22/15	11		171	159	155	152	147	140	131	121	109	95	80
PS6S -22/16	13		182	169	166	162	156	150	140	130	116	101	85
PS6S -22/17	13		192	180	175	171	165	158	149	138	125	108	90
PS6S -22/18	13		207	190	186	182	176	170	160	147	132	115	95
PS6S -22/19	15		218	201	196	192	185	178	169	155	140	120	100
PS6S -22/20	15		230	212	207	202	195	188	178	165	146	126	106
PS6S -22/21	15		243	224	219	213	205	198	187	174	155	135	112
PS6S -22/22	18.5		254	235	230	224	217	208	195	181	164	142	117
PS6S -22/23	18.5		265	246	241	235	226	217	205	189	170	147	121
PS6S -22/24	18.5		277	256	250	244	235	225	214	197	177	154	127
PS6S -22/25	18.5		290	265	260	253	244	234	220	203	183	159	131
PS6S -22/26	22		299	277	270	263	254	242	228	210	190	165	137
PS6S -22/28	22		314	290	284	275	265	254	238	220	199	174	144

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -22/05	3.7	5	1	139	65 / 80	525	11.0
PS6S -22/06	4.5	6	1	139	65 / 80	569	11.9
PS6S -22/07	5.5	7.5	1 / 2	139 / 143	65 / 80	616	12.9
PS6S -22/08	5.5	7.5	1 / 2	139 / 143	65 / 80	663	13.9
PS6S -22/09	7.5	10	1 / 2	139 / 143	65 / 80	710	14.9
PS6S -22/10	7.5	10	1 / 2	139 / 143	65 / 80	757	15.9
PS6S -22/11	9.3	12.5	1 / 2	139 / 143	65 / 80	804	16.9
PS6S -22/12	9.3	12.5	1 / 2	139 / 143	65 / 80	851	17.9
PS6S -22/13	11	15	1 / 2	139 / 143	65 / 80	898	18.9
PS6S -22/14	11	15	1 / 2	139 / 143	65 / 80	945	19.9
PS6S -22/15	11	15	1 / 2	139 / 143	65 / 80	992	20.9
PS6S -22/16	13	17.5	1 / 2	139 / 143	65 / 80	1039	21.9
PS6S -22/17	13	17.5	1 / 2	139 / 143	65 / 80	1086	22.9
PS6S -22/18	13	17.5	1 / 2	139 / 143	65 / 80	1133	23.9
PS6S -22/19	15	20	1 / 2	139 / 143	65 / 80	1180	24.9
PS6S -22/20	15	20	1 / 2	139 / 143	65 / 80	1227	25.9
PS6S -22/21	15	20	1 / 2	139 / 143	65 / 80	1274	26.9
PS6S -22/22	18.5	25	1 / 2	139 / 143	65 / 80	1321	27.9
PS6S -22/23	18.5	25	1 / 2	139 / 143	65 / 80	1368	28.9
PS6S -22/24	18.5	25	1 / 2	139 / 143	65 / 80	1415	29.9
PS6S -22/25	18.5	25	1 / 2	139 / 143	65 / 80	1462	32.9
PS6S -22/26	22	30	1 / 2	139 / 143	65 / 80	1509	34.1
PS6S -22/28	22	30	1 / 2	139 / 143	65 / 80	1603	35.1

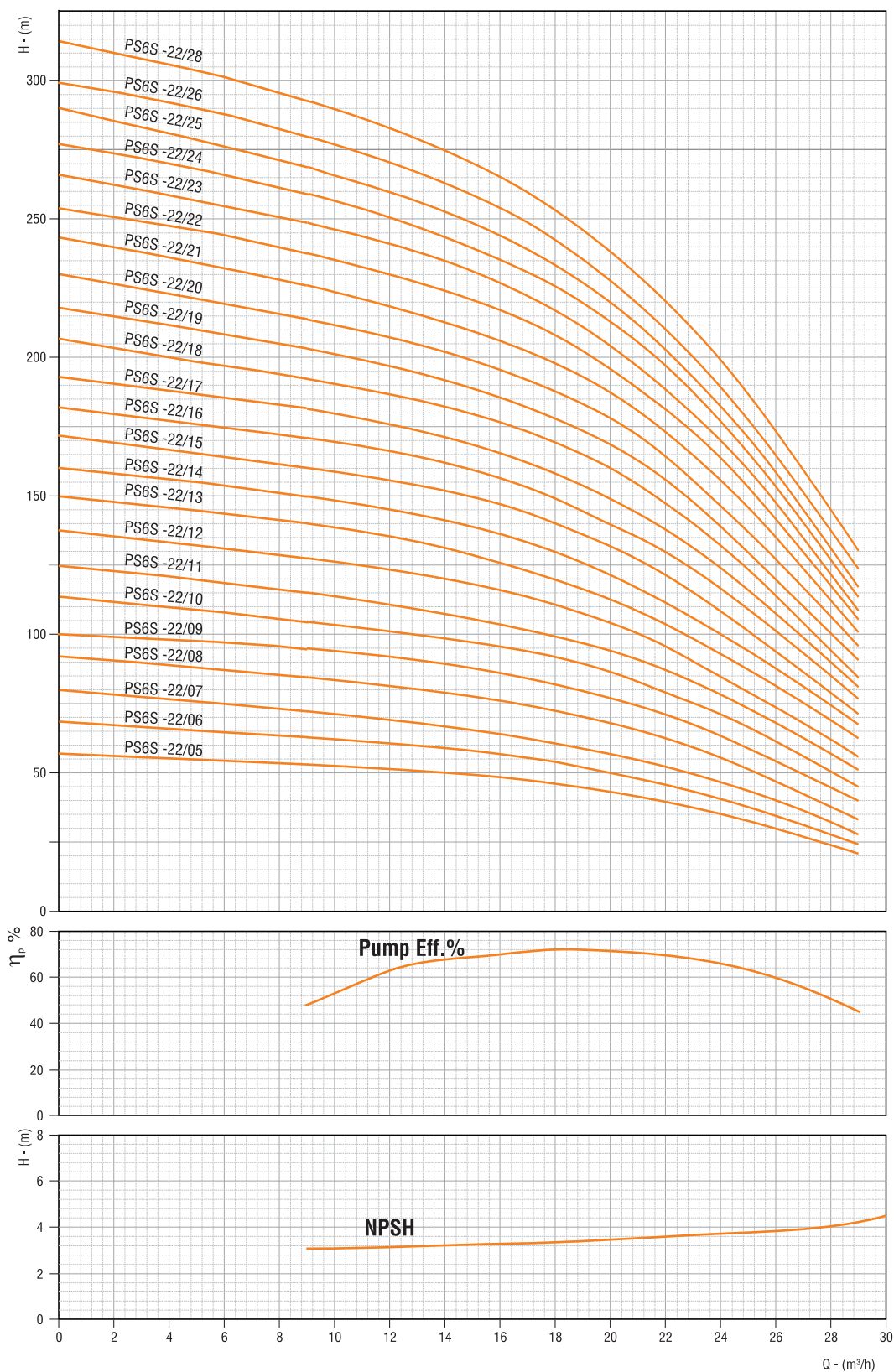


Nominal Diameter : **6"**

Nominal Flow : **22m³/h**

Outlet Size : **2½"/3"***

PERFORMANCE CURVES



Refer General Information for performance curve conditions and for other details.

Curve tolerance according to ISO : 9906, Annex - A.

* - Optional.

Nominal Diameter : **6"**

Nominal Flow : **22m³/h**

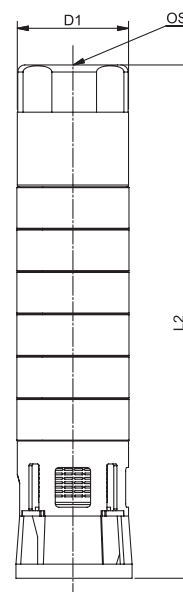
Outlet Size : **2½"/3"**

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps m ³ /h	0	2.77	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.77
			0	10	12	14	16	18	20	22	24	26	28
PS6S -22/30	22	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	338	305	298	290	280	269	253	234	210	180	149
PS6S -22/32	26		362	329	320	310	300	289	270	250	222	192	160
PS6S -22/34	26		382	351	344	333	321	308	289	267	238	205	170
PS6S -22/36	26		406	375	364	352	340	326	305	280	250	218	181
PS6S -22/38	30		430	395	385	372	360	341	320	293	263	230	192
PS6S -22/40	30		455	414	402	390	378	360	339	309	277	240	203
PS6S -22/42	30		476	434	423	410	397	378	352	323	290	253	216
PS6S -22/44	37		498	454	444	430	415	397	370	340	305	268	228
PS6S -22/46	37		535	482	470	458	440	419	390	359	322	280	240
PS6S -22/50	37		568	511	499	482	454	440	415	383	349	309	263

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -22/30	22	30	1 / 2	139 / 143	65 / 80	1697	36.2
PS6S -22/32	26	35	1 / 2	139 / 143	65 / 80	1764	38.9
PS6S -22/34	26	35	1 / 2	139 / 143	65 / 80	1885	40.8
PS6S -22/36	26	35	1 / 2	139 / 143	65 / 80	1979	42.8
PS6S -22/38	30	40	1 / 2	139 / 143	65 / 80	2073	44.7
PS6S -22/40	30	40	1 / 2	139 / 143	65 / 80	2167	46.7
PS6S -22/42	30	40	1 / 2	139 / 143	65 / 80	2261	48.6
PS6S -22/44	37	50	1 / 2	139 / 143	65 / 80	2355	50.6
PS6S -22/46	37	50	1 / 2	139 / 143	65 / 80	2449	52.5
PS6S -22/50	37	50	1 / 2	139 / 143	65 / 80	2637	54.5

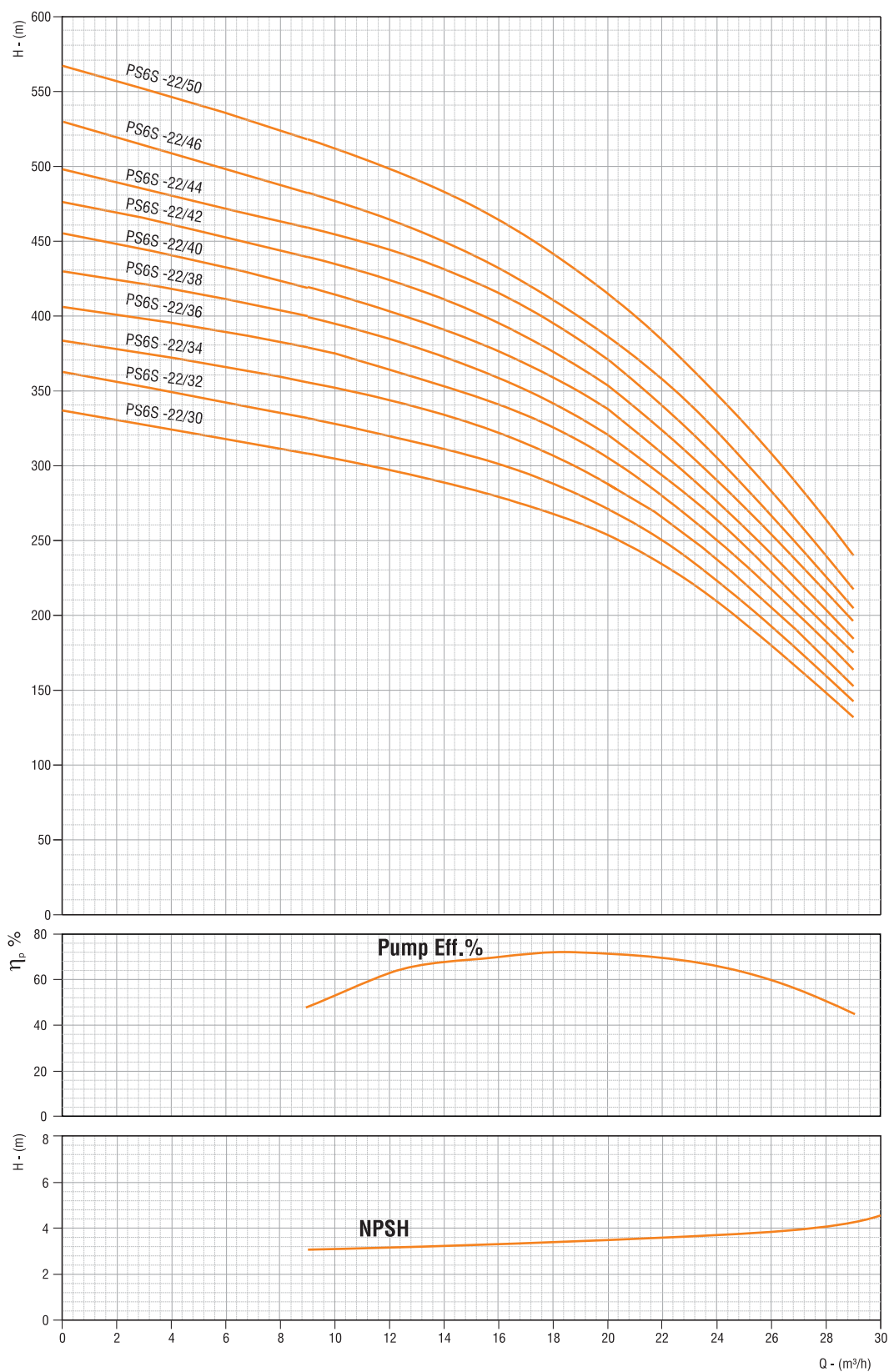


Nominal Diameter : **6"**

Nominal Flow : **22m³/h**

Outlet Size : **2½"/3"***

PERFORMANCE CURVES



Refer General Information for performance curve conditions and for other details.

Curve tolerance according to ISO : 9906, Annex - A.

* - Optional.

Nominal Diameter : **6"**

Nominal Flow : **30m³/h**

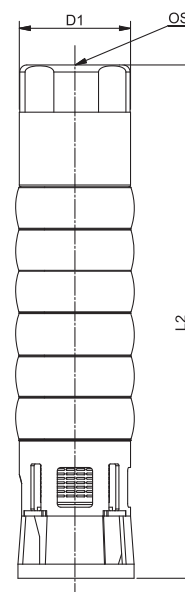
Outlet Size : **3"**

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	2.22	3.33	4.44	5.55	6.60	7.22	8.33	8.90	9.40	10.00
		m ³ /h	0	8	12	16	20	24	26	30	32	34	36
PS6S -30/02	2.2	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	24	22.8	22	21	20	18.5	17.9	15.9	14	13	11
PS6S -30/03	3		36.5	34	33	31.8	30	28.5	27.8	24.5	22.8	20.5	18
PS6S -30/04	4		47	44	43	41.8	39.8	38	35.8	32.5	30	27	24
PS6S -30/05	5.5		58.5	55	53.8	51.8	49	46.5	45	40	37	34	31
PS6S -30/06	5.5		70.5	67	65	62	59	55.8	53.5	48	45	42	38
PS6S -30/07	7.5		82	78	76	73	69	65	62	56	52	48.5	45
PS6S -30/08	7.5		92.5	88	86	83	79	74	71	63.5	59	54.5	50
PS6S -30/09	9.3		105	100	97	94	89	83	80	72	67	62	57
PS6S -30/10	9.3		117	111	108	104	99	93	89.5	81	75.5	70	63
PS6S -30/11	9.3		127	121	117	113	108.5	102	98	89.5	84	78	71
PS6S -30/12	11		137	131	127	122.5	117	111	107	98	91.5	85	77

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -30/02	2.2	3	1	136	80	475	9.4
PS6S -30/03	3	4	1	136	80	573	11.3
PS6S -30/04	4	5.5	1	136	80	669	13.2
PS6S -30/05	5.5	7.5	1 / 2	136 / 140	80	765	15.0
PS6S -30/06	5.5	7.5	1 / 2	136 / 140	80	861	16.9
PS6S -30/07	7.5	10	1 / 2	136 / 140	80	957	18.8
PS6S -30/08	7.5	10	1 / 2	136 / 140	80	1053	20.7
PS6S -30/09	9.3	12.5	1 / 2	136 / 140	80	1149	22.6
PS6S -30/10	9.3	12.5	1 / 2	136 / 140	80	1245	24.4
PS6S -30/11	9.3	12.5	1 / 2	136 / 140	80	1341	26.3
PS6S -30/12	11	15	1 / 2	136 / 140	80	1437	28.2

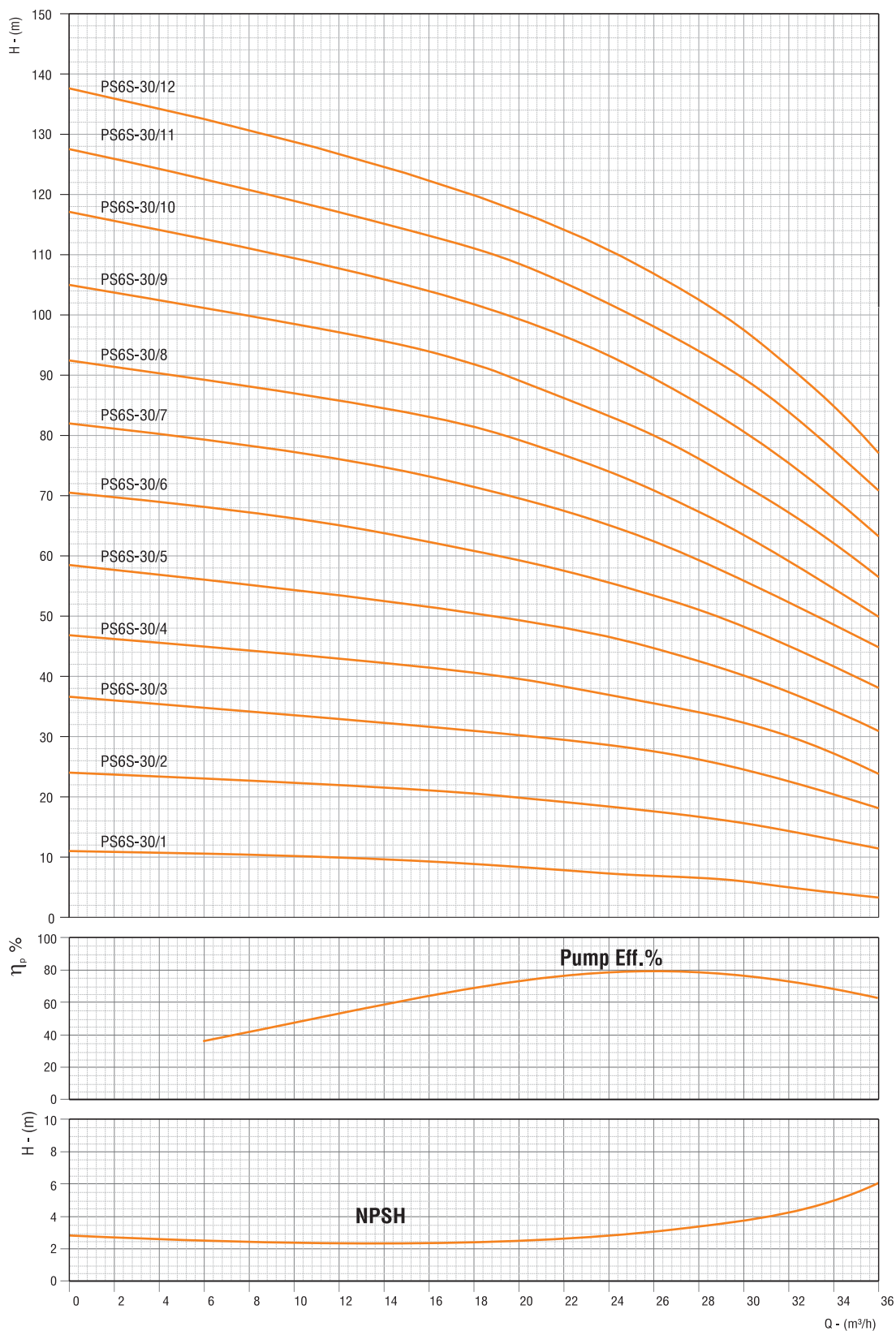


Nominal Diameter : 6"

Nominal Flow : 30m³/h

Outlet Size : 3"

PERFORMANCE CURVES



Nominal Diameter : 6"

Nominal Flow : 30m³/h

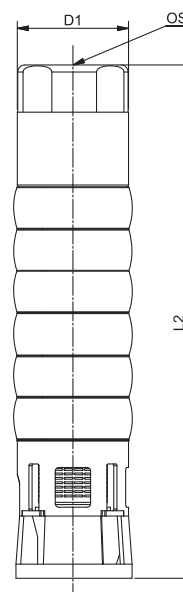
Outlet Size : 3"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	Ips	0	2.22	3.33	4.44	5.55	6.60	7.22	8.33	8.90	9.40	10.00
		m ³ /h	0	8	12	16	20	24	26	30	32	34	36
PS6S -30/13	11	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	148	142	137	132	127	119	115	106	100	92	83
PS6S -30/14	13		160	152	148	142	136	128	124	112	105	97	88
PS6S -30/15	13		172	163	157	152	145	136	132	120	114	104	94
PS6S -30/16	15		184	175	169	164	156	148	143	130	121	112	102
PS6S -30/17	15		196	186	180	174	168	158	152	139	130	120	110
PS6S -30/18	18.5		208	198	192	185	177	166	160	146	137	127	116
PS6S -30/19	18.5		220	210	203	196	187	175	168	154	144	134	122
PS6S -30/20	18.5		232	218	211	204	196	184	177	162	152	140	128
PS6S -30/21	18.5		242	230	223	215	206	193	185	168	157	146	134
PS6S -30/22	22		252	240	234	226	216	202	194	175	164	152	143
PS6S -30/23	22		262	249	242	232	222	208	200	180	169	156	143
PS6S -30/24	22		272	257	248	240	228	215	207	188	175	160	146
PS6S -30/25	22		282	267	258	248	236	222	213	193	180	165	150
PS6S -30/26	22		292	277	268	259	246	230	220	199	185	170	154
PS6S -30/27	26		304	288	280	268	254	237	228	204	191	176	160
PS6S -30/28	26		315	302	292	279	264	246	235	212	198	182	168

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -30/13	11	15	1 / 2	136 / 140	80	1533	30.1
PS6S -30/14	13	17.5	1 / 2	136 / 140	80	1629	32.0
PS6S -30/15	13	17.5	1 / 2	136 / 140	80	1725	33.8
PS6S -30/16	15	20	1 / 2	136 / 140	80	1821	35.7
PS6S -30/17	15	20	1 / 2	136 / 140	80	1917	37.6
PS6S -30/18	18.5	25	1 / 2	136 / 140	80	2013	39.5
PS6S -30/19	18.5	25	1 / 2	136 / 140	80	2109	41.4
PS6S -30/20	18.5	25	1 / 2	136 / 140	80	2205	43.2
PS6S -30/21	18.5	25	1 / 2	136 / 140	80	2301	45.1
PS6S -30/22	22	30	1 / 2	136 / 140	80	2397	47.0
PS6S -30/23	22	30	1 / 2	136 / 140	80	2493	49.0
PS6S -30/24	22	30	1 / 2	136 / 140	80	2589	50.8
PS6S -30/25	22	30	1 / 2	136 / 140	80	2685	52.6
PS6S -30/26	22	30	1 / 2	136 / 140	80	2781	54.5
PS6S -30/27	26	35	1 / 2	136 / 140	80	2877	56.4
PS6S -30/28	26	35	1 / 2	136 / 140	80	2973	58.3

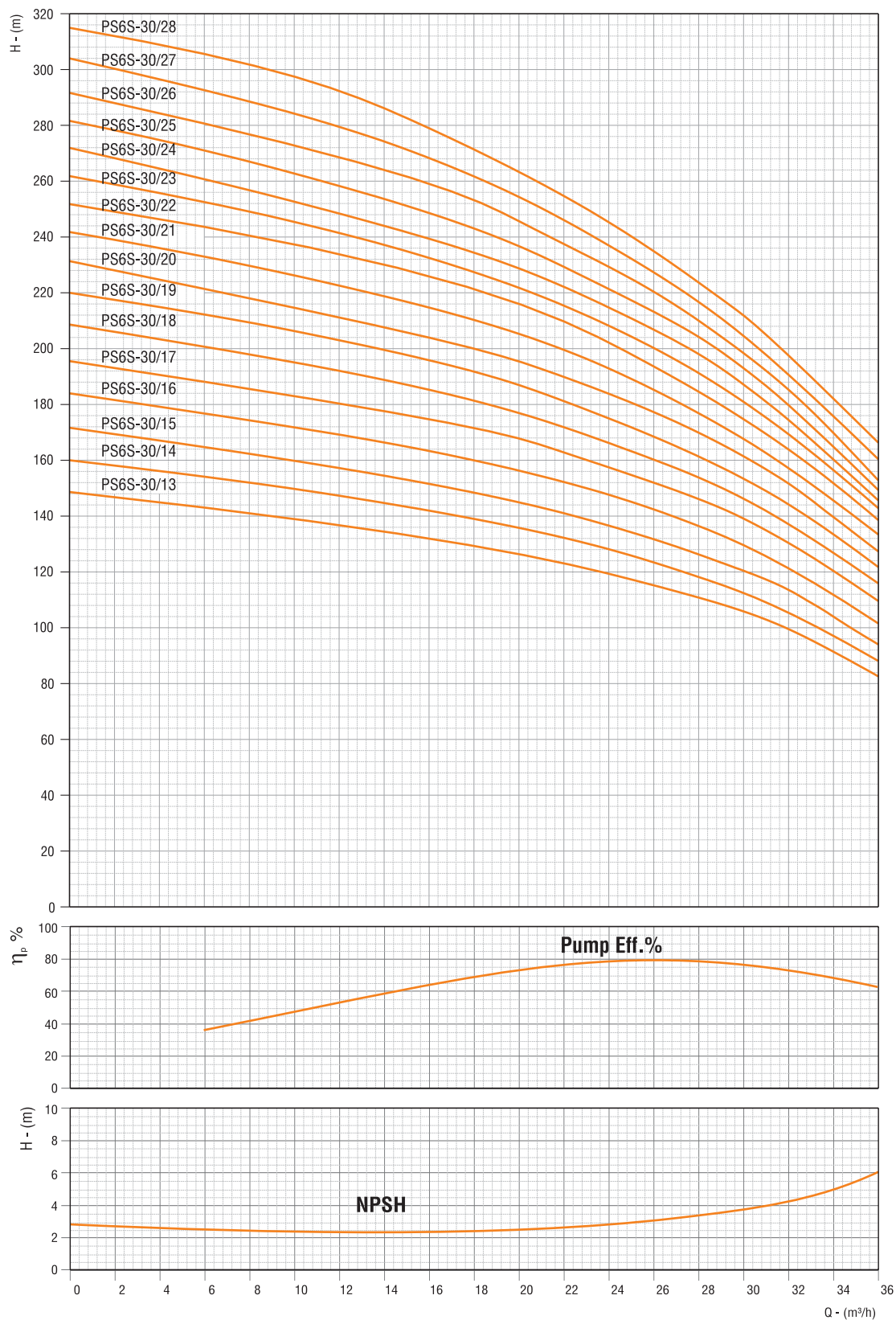


Nominal Diameter : **6"**

Nominal Flow : **30m³/h**

Outlet Size : **3"**

PERFORMANCE CURVES



Nominal Diameter : **6"**

Nominal Flow : **30m³/h**

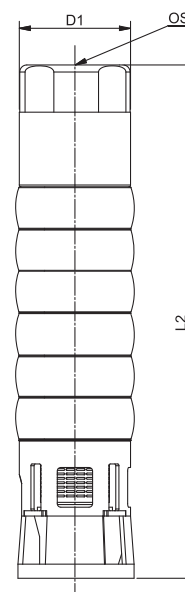
Outlet Size : **3"**

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	2.22	3.33	4.44	5.55	6.60	7.22	8.33	8.90	9.40	10.00
		m ³ /h	0	8	12	16	20	24	26	30	32	34	36
PS6S -30/29	26	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	300	305	297	272	253	233	222	200	187	172	159
PS6S -30/31	26		320	326	318	295	274	255	244	218	201	185	169
PS6S -30/32	30		338	340	326	305	289	273	260	231	213	196	176
PS6S -30/34	30		356	359	345	322	302	282	272	242	224	204	184
PS6S -30/35	30		370	366	361	340	320	297	283	255	233	212	188
PS6S -30/36	37		405	401	386	367	346	321	308	273	250	224	200
PS6S -30/40	37		425	418	401	382	360	339	322	286	264	240	210
PS6S -30/43	37		458	450	432	411	387	360	345	307	282	256	230

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -30/29	26	35	1 / 2	136 / 140	80	3069	60.2
PS6S -30/31	26	35	1 / 2	136 / 140	80	3261	62.2
PS6S -30/32	30	40	1 / 2	136 / 140	80	3357	64.1
PS6S -30/34	30	40	1 / 2	136 / 140	80	3549	66.2
PS6S -30/35	30	40	1 / 2	136 / 140	80	3645	68.2
PS6S -30/36	37	50	1 / 2	136 / 140	80	3933	72.2
PS6S -30/40	37	50	1 / 2	136 / 140	80	4125	75.1
PS6S -30/43	37	50	1 / 2	136 / 140	80	4413	82.2

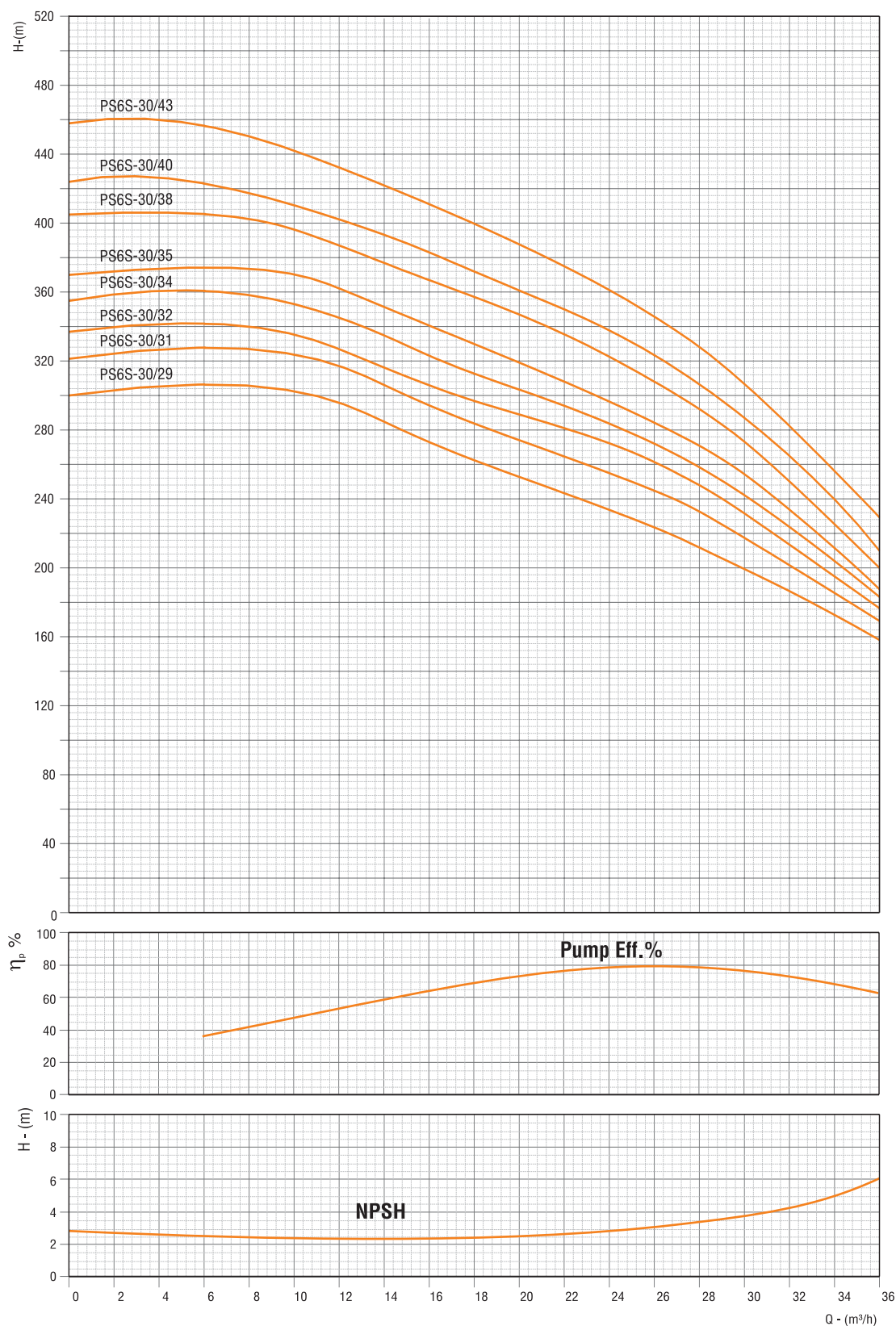


Nominal Diameter : 6"

Nominal Flow : 30m³/h

Outlet Size : 3"

PERFORMANCE CURVES



Nominal Diameter : 6"

Nominal Flow : 46m³/h

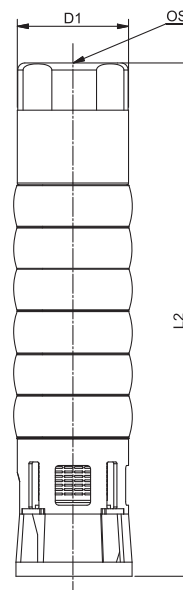
Outlet Size : 3"/4"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	3.33	5.5	7.8	10.0	11.1	12.2	12.8	15.6	16.7
		m ³ /h	0	12	20	28	36	40	44	46	56	60
PS6S -46/01	2.2	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	12	12	11	10.5	10	9	8.5	8	6	4.5
PS6S -46/02	3		28	26	25	23	19	19.5	18	16	12	10
PS6S -46/03	5.5		38	36.5	35	32	27	26	25	23	18.5	15
PS6S -46/04	7.5		52	51	48	44	39	38	36	33	26	22
PS6S -46/05	7.5		65	64	63	57	49	46	44	40	33	27
PS6S -46/06	9.3		78	77	75	68.5	59	57	54	50	41	34
PS6S -46/07	11		93	90	88	81	70	66	62	58	47	40
PS6S -46/08	13		107	105	101	94	84	79	74	68	55	46
PS6S -46/09	15		120	119	145	106	95	90	84	78	64	55
PS6S -46/10	15		134	131	126	116	104	98	91.5	85	72	62
PS6S -46/11	18.5		146	144	138	127	113	107	102	95	80	70
PS6S -46/12	18.5		158	155	150	136	122	117	111	104	89	77
PS6S -46/13	22		173	168	161	150	134	129	123	116	98	84
PS6S -46/14	22		190	189	180	164	145	138	130	120	100	90
PS6S -46/15	22		203	200	192	176	158	148	139	130	110	98
PS6S -46/16	26		213	212	207	190	168	160	152	142	120	106
PS6S -46/17	26		230	225	215	200	180	170	160	150	128	110
PS6S -46/18	30		246	242	232	212	188	178	168	160	134	118
PS6S -46/19	30		260	254	244	222	198	188	180	170	143	124
PS6S -46/20	37		270	265	254	234	209	199	189	179	150	133
PS6S -46/21	37		285	272	261	241	220	209	198	187	157	137
PS6S -46/22	37		292	281	270	250	229	220	209	196	164	144
PS6S -46/23	37		305	294	283	261	239	229	219	205	170	150
PS6S -46/24	37		322	310	297	275	251	240	229	216	180	157
PS6S -46/25	37		337	325	313	289	264	252	240	225	190	166

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -46/01	2.2	3	1	145	80 / 100	398	8.4
PS6S -46/02	3	4	1	145	80 / 100	511	10.6
PS6S -46/03	5.5	7.5	1 / 2	145 / 149	80 / 100	624	12.8
PS6S -46/04	7.5	10	1 / 2	145 / 149	80 / 100	737	15.0
PS6S -46/05	7.5	10	1 / 2	145 / 149	80 / 100	850	18.0
PS6S -46/06	9.3	12.5	1 / 2	145 / 149	80 / 100	963	20.0
PS6S -46/07	11	15	1 / 2	145 / 149	80 / 100?	1076	22.2
PS6S -46/08	13	17.5	1 / 2	145 / 149	80 / 100	1189	24.4
PS6S -46/09	15	20	1 / 2	145 / 149	80 / 100	1302	27.2
PS6S -46/10	15	20	1 / 2	145 / 149	80 / 100	1415	29.6
PS6S -46/11	18.5	25	1 / 2	145 / 149	80 / 100	1528	32.0
PS6S -46/12	18.5	25	1 / 2	145 / 149	80 / 100	1641	34.8
PS6S -46/13	22	30	1 / 2	145 / 149	80 / 100	1754	37.6
PS6S -46/14	22	30	1 / 2	145 / 149	80 / 100	1867	39.5
PS6S -46/15	22	30	1 / 2	145 / 149	80 / 100	1980	42.3
PS6S -46/16	26	35	1 / 2	145 / 149	80 / 100	2093	45.1
PS6S -46/17	26	35	1 / 2	145 / 149	80 / 100	2206	47.3
PS6S -46/18	30	40	1 / 2	145 / 149	80 / 100	2319	49.5
PS6S -46/19	30	40	1 / 2	145 / 149	80 / 100	2432	51.3
PS6S -46/20	37	50	1 / 2	145 / 149	80 / 100	2545	53.7
PS6S -46/21	37	50	1 / 2	145 / 149	80 / 100	2658	56.2
PS6S -46/22	37	50	1 / 2	145 / 149	80 / 100	2771	58.4
PS6S -46/23	37	50	1 / 2	145 / 149	80 / 100	2884	60.8
PS6S -46/24	37	50	1 / 2	145 / 149	80 / 100	2997	63.3
PS6S -45/25	37	50	1 / 2	145 / 149	80 / 100	3110	65.7

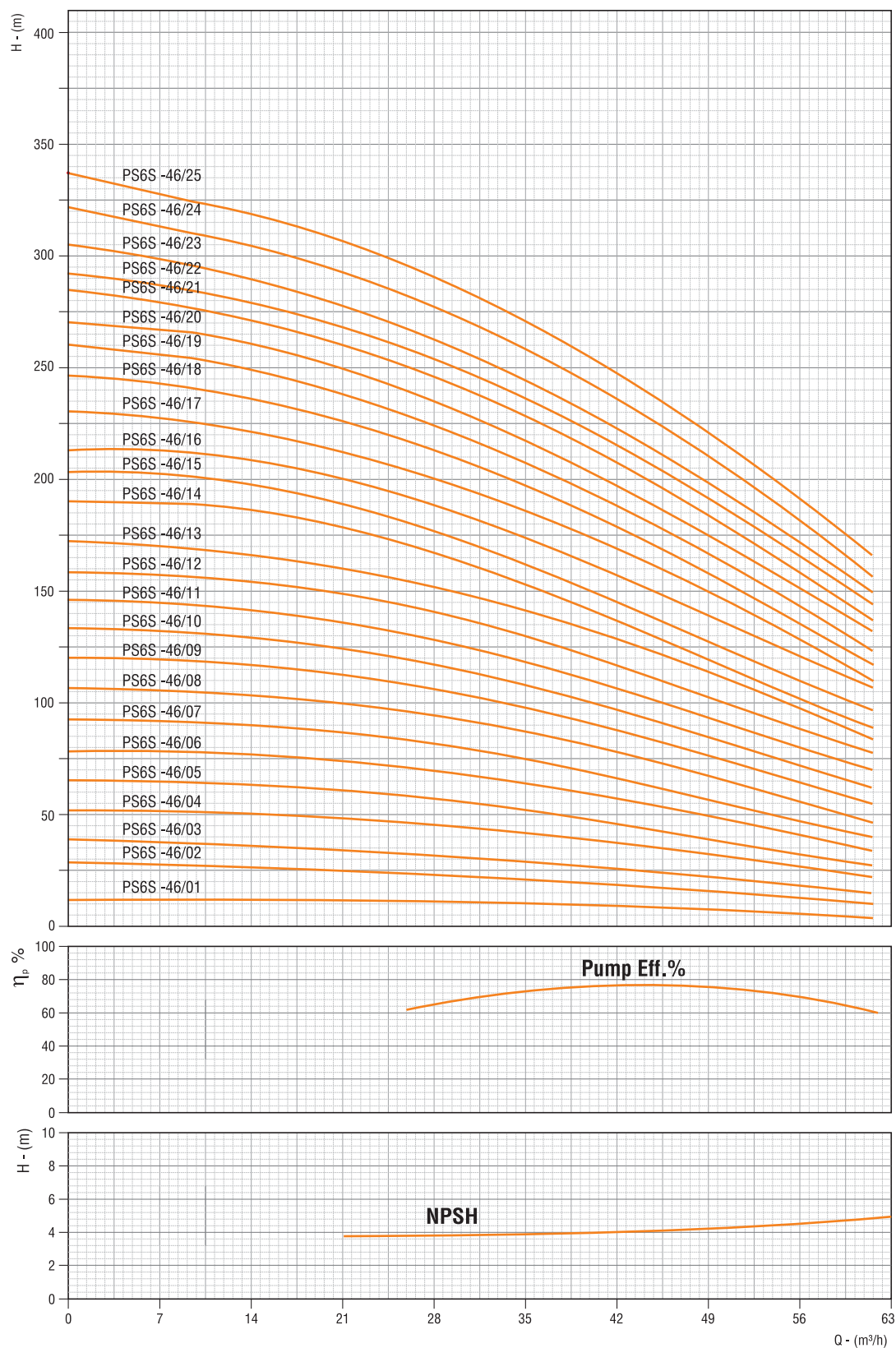


Nominal Diameter : 6"

Nominal Flow : 46m³/h

Outlet Size : 3"/4"*

PERFORMANCE CURVES



Refer General Information for performance curve conditions and for other details.

Curve tolerance according to ISO : 9906, Annex - A.

* - Optional.

Nominal Diameter : 6"

Nominal Flow : 60m³/h

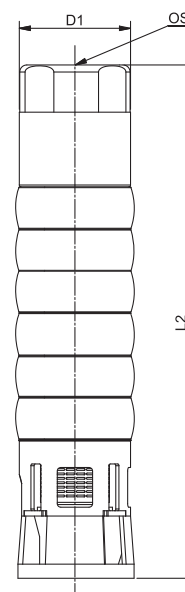
Outlet Size : 3"/4"

PERFORMANCE TABLE

PUMP MODEL	MOTOR kW	lps	0	4.16	5.55	8.33	11.11	13.88	16.66	19.44	22.22
		m ³ /h	0	15	20	30	40	50	60	70	80
PS6S -60/01	2.2	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	14	13	12	11	9	7	5	3	1
PS6S -60/02	4		26	25	24	23	20	17	14	10	5
PS6S -60/03	5.5		39	38	37	35	32	27	22	15	9
PS6S -60/04	7.5		52	51	50	47	42	37	31	22	13
PS6S -60/05	9.3		67	64	63	59	53	45	37	28	16
PS6S -60/06	11		82	78	76	71	63	56	47	35	21
PS6S -60/07	13		94	91	89	83	73	66	55	41	24
PS6S -60/08	15		110	104	102	97	87	76	65	48	30
PS6S -60/09	18.5		122	114	112	106	95	84	70	54	33
PS6S -60/10	18.5		138	133	128	118	105	92	76	57	35
PS6S -60/11	22		148	142	138	128	114	101	86	65	40
PS6S -60/12	22		167	156	152	141	124	109	92	69	43
PS6S -60/13	26		180	170	165	153	137	120	100	75	45
PS6S -60/14	26		195	184	179	164	144	128	110	83	48
PS6S -60/15	26		212	198	194	177	157	137	117	85	52
PS6S -60/16	30		220	213	207	188	167	147	127	89	57
PS6S -60/17	30		242	227	222	205	183	160	138	107	63
PS6S -60/18	37		252	240	233	212	189	176	142	112	67
PS6S -60/19	37		270	254	248	231	206	181	152	116	74
PS6S -60/20	37		282	276	267	259	216	189	162	126	80

DIMENSIONAL DATA & DRAWING

PUMP MODEL	REQUIRED MOTOR POWER		No. OF CABLE GUARD	DIMENSIONS (mm)			APPROX NETT WEIGHT (kg)
	kW	HP		D1	OS	L2	
PS6S -60/01	2.2	3	1	145	80 / 100	398	8.0
PS6S -60/02	4	5.5	1	145	80 / 100	511	10.4
PS6S -60/03	5.5	7.5	1 / 2	145 / 149	80 / 100	624	12.7
PS6S -60/04	7.5	10	1 / 2	145 / 149	80 / 100	737	15.2
PS6S -60/05	9.3	12.5	1 / 2	145 / 149	80 / 100	850	17.6
PS6S -60/06	11	15	1 / 2	145 / 149	80 / 100	963	20.0
PS6S -60/07	13	17.5	1 / 2	145 / 149	80 / 100	1076	22.5
PS6S -60/08	15	20	1 / 2	145 / 149	80 / 100	1189	24.8
PS6S -60/09	18.5	25	1 / 2	145 / 149	80 / 100	1302	27.2
PS6S -60/10	18.5	25	1 / 2	145 / 149	80 / 100	1415	29.6
PS6S -60/11	22	30	1 / 2	145 / 149	80 / 100	1528	32.1
PS6S -60/12	22	30	1 / 2	145 / 149	80 / 100	1641	34.3
PS6S -60/13	26	35	1 / 2	145 / 149	80 / 100	1754	36.6
PS6S -60/14	26	35	1 / 2	145 / 149	80 / 100	1867	39.2
PS6S -60/15	26	35	1 / 2	145 / 149	80 / 100	1980	41.8
PS6S -60/16	30	40	1 / 2	145 / 149	80 / 100	2093	44.5
PS6S -60/17	30	40	1 / 2	145 / 149	80 / 100	2206	46.4
PS6S -60/18	37	50	1 / 2	145 / 149	80 / 100	2319	48.4
PS6S -60/19	37	50	1 / 2	145 / 149	80 / 100	2432	50.4
PS6S -60/20	37	50	1 / 2	145 / 149	80 / 100	2545	52.4



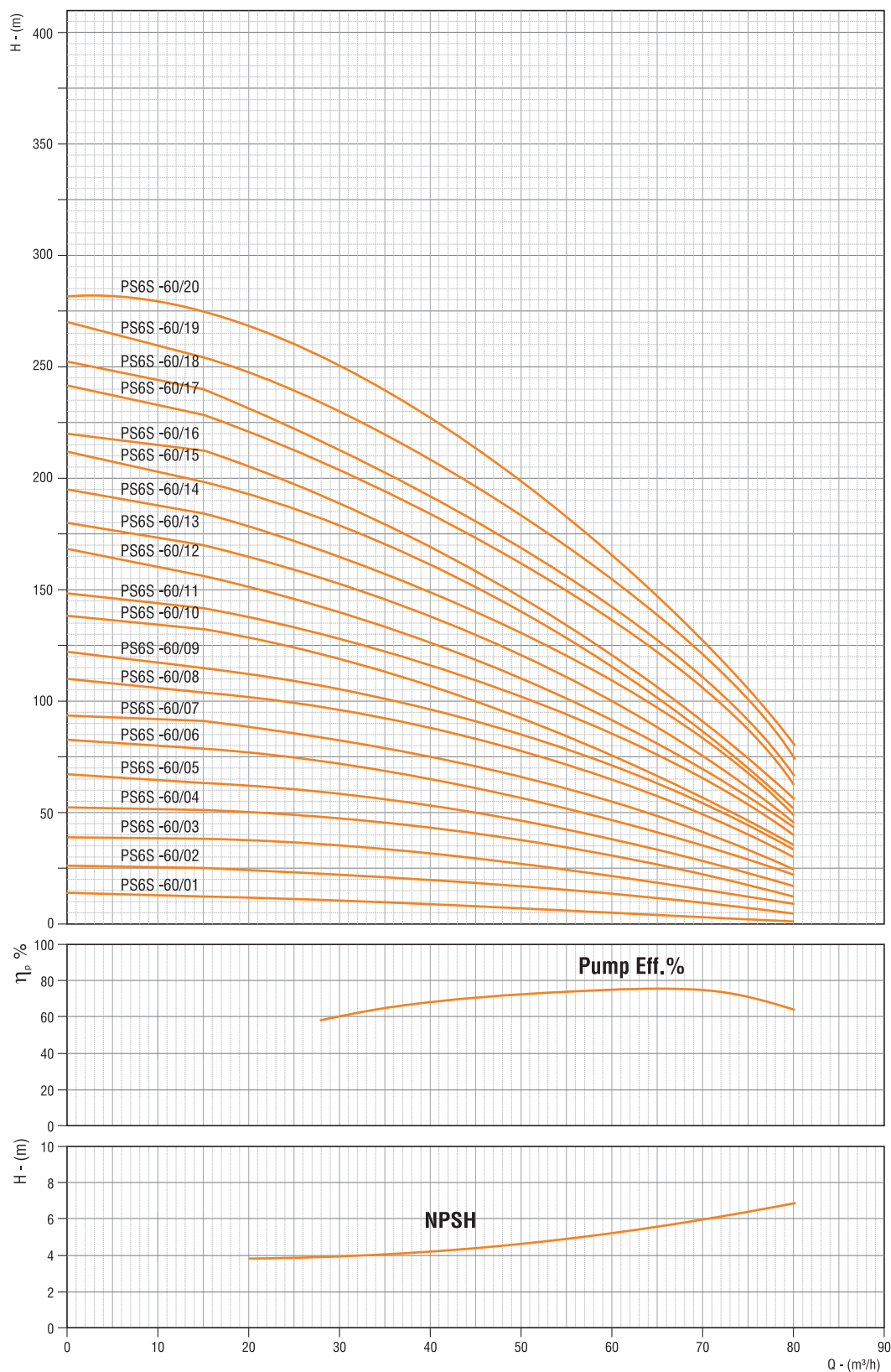
All Subject to change without notice.

Nominal Diameter : **6"**

Nominal Flow : **60m³/h**

Outlet Size : **3"/4"***

PERFORMANCE CURVES

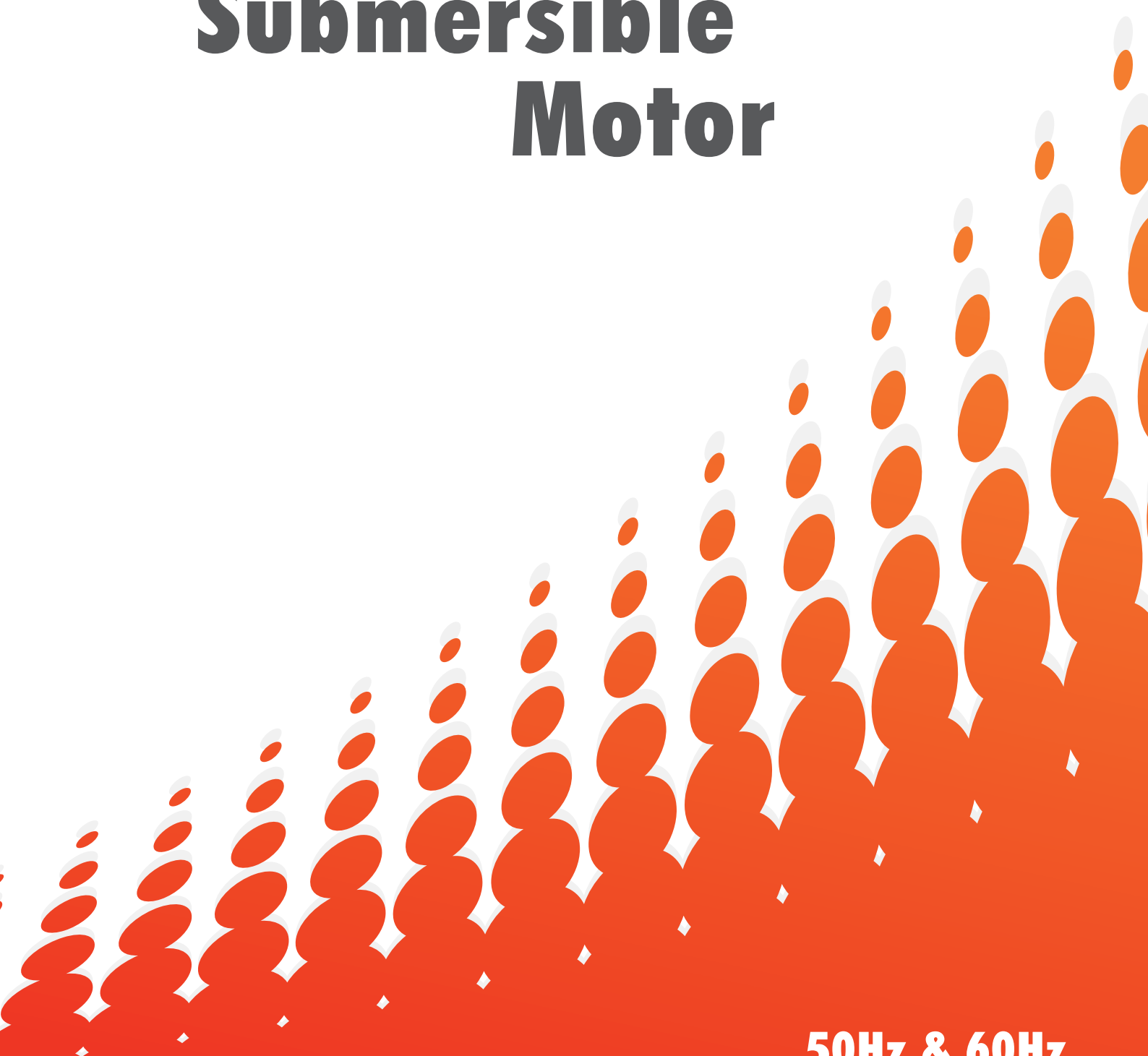


Refer General Information for performance curve conditions and for other details.

Curve tolerance according to ISO : 9906, Annex - A.

* - Optional.

Submersible Motor



50Hz & 60Hz

STAINLESS STEEL SUBMERSIBLE MOTOR



Quality of Borewell Motors

Point Submersible motors are made of stainless steel material, complete SS 304 construction with SS 316 material as option. Point submersible motors are designed in 4" and 6" configuration, water & glycol filled rewindable and easy to maintain.

Product Features

- 4" and 6" Submersible motors are water filled and rewindable with insulated windings.
- Complete SS 304 construction with optional SS 316.
- Radial, Axial thrust bearings are water lubricated.
- Shafts are induction hardened SS 431 material
- Special winding design for high torque, low temperature rise and high efficiency.
- Motors are pre-filled with water and glycol mixture for longer life.
- Diaphragm cup with suitable protection for pressure and volume variation inside the motor.

Specifications

4"

- Ratings : Single phase – 0.37 to 2.2 kW
Three phase – 0.37 to 5.5 kW
- Supply Voltages (Tolerance +6% / -10%)
50Hz, 1 phase, 220 V, 230 V
50Hz, 3 phase, 380 V, 400 V, 415 V
60Hz, 1 phase, 115 V, 230 V
60Hz, 3 phase, 230 V, 380 V, 460 V
- Degree of Protection : IP 68
- Continuous duty
- Ambient temperature: 45°C
- Rotation: Single phase – CCW
Three phase – CCW and CW
- Maximum nos. of starts / hour:
0.37 to 2.2 kW – 20
3 to 5.5 kW – 10
- Water pH: 6.5 – 8.5
- Minimum cooling flow along the motor: 8cm/sec
- Maximum submerged depth: 350 meters

6"

- Ratings : Three phase – 4 to 37 kW
- Supply Voltages (Tolerance +10% / -15%)
50Hz, 3 phase, 380 V, 400 V, 415 V
60Hz, 3 phase, 230 V, 380 V, 460 V
- Degree of Protection : IP 68
- Continuous duty
- Ambient temperature: 45°C
- Rotation: Three phase – CCW and CW
- Maximum nos. of starts / hour:
4 to 15 kW – 20
18.5 to 45 kW – 15
Water pH: 6.5 – 8.5
- Minimum cooling flow along the motor:
4 to 15kW – 15 cm/sec
18.5 to 45kW – 30 cm/sec
- Maximum submerged depth: 250 meters
- Mounting: vertical / horizontal (up to 30kW)

On Request

4"

AISI 316 Stainless steel construction.
Special Voltages.
Motor protection : Select thermal overload

6"

Mechanical Shaft seal Sic / Sic
Built in PT 100 Temperature sensor
Special Voltages
Double Cable for Star – Delta operation
Motor protection : Select thermal overload

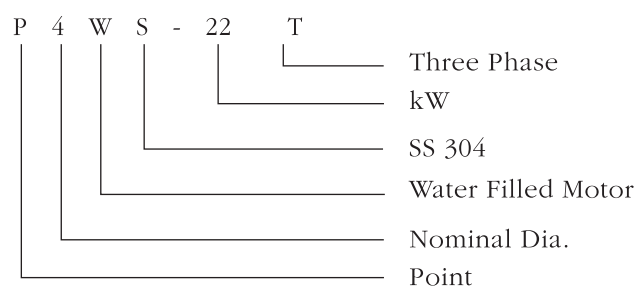
Model Identification Code

Borewell Submersible Motor

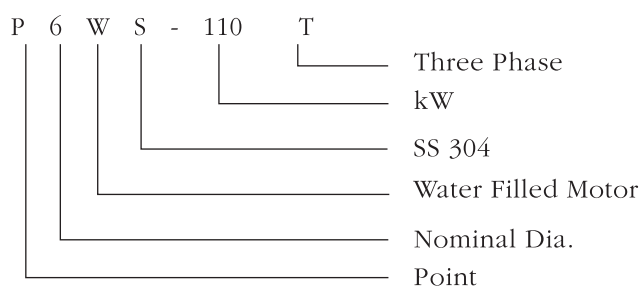
- P - Point
- 4 - Nominal Diameter
- W - Water Filled
- S (R) - Material Type
- 2.2 - kW
- T - Phase / Connection

* Note : (R) Available with SS 316.

Example :



Example :



Cable Data

4"

HP	Type of Start	Cable x Leads x size (mm²)	Length (m)	H x B (mm)
Single Phase				
0.5 to 1.0	DOL	1 x 4 x 1.5	3	6 x 15.8
1.5 to 5.5		1 x 4 x 2.5	3	6.5 x 18
Three Phase				
0.5 to 3.0	DOL	1 x 4 x 1.5	3	6 x 15.8
4.0 to 7.5		1 x 4 x 2.5	3	6.5 x 18

6"

HP	Type of Start	Cable x Leads x size (mm ²)	Length (m)	H x B (mm)
Three Phase				
5.5 to 50.0	DOL	1 x 4 x 6	3.5	7.9 x 24.3

The Inside Picture

Technology

Point Submersible Motors are developed and manufactured user-friendly wet type and Rewindable. Motor is Pre-filled with clear, cold, filtered water and glycol. Motors can also be customized if the requirements are not covered by the overview.

Point 4" Submersible Motors are available from 0.37kW to 5.5kW with NEMA Standards.

Point 6" Submersible Motors are available from 2.2kW to 37kW with NEMA Standards.

Material Options

Point 4" & 6" submersible motors are available in stainless steel Construction AISI 304 grade.

Motor shaft	– AISI 431
Stator Shell	– AISI 304 / AISI 316
Diaphragm	– Nitrile Rubber

Stator

The stator windings are water proof poly wrapped copper winding wires.

Housings

The Housings are made with AISI 304 Grade Stainless steel investment castings.

Thrust Bearing / Pad

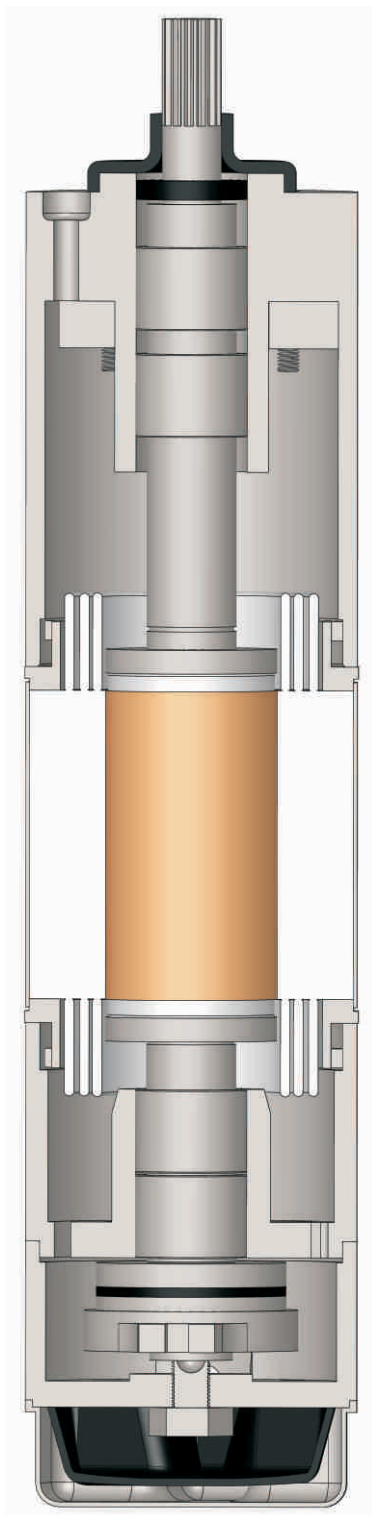
Thrust Bearing and Pad made with SS 420 and graphite Carbon material for long life and increase the efficiency of the pump.

Diaphragm

Diaphragm is provided to safe guard the pressure and volume variations of the water inside the motor. Diaphragm is made with Nitrile Rubber.

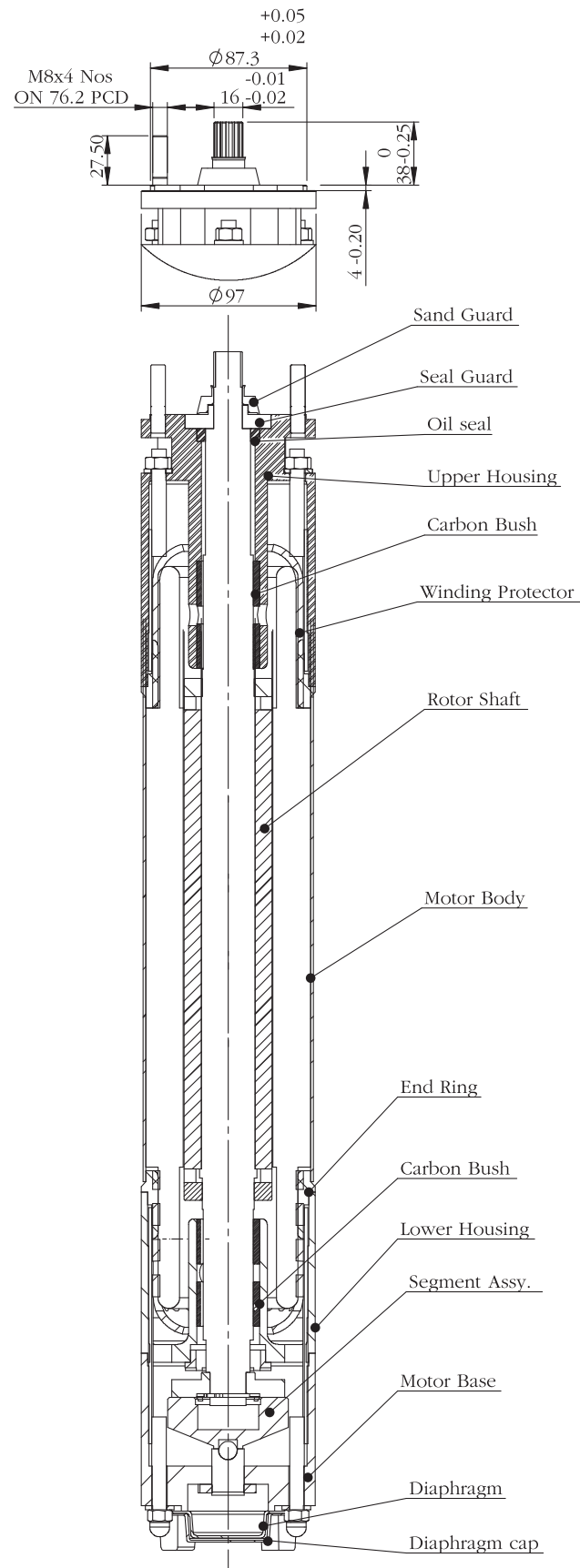
Motor Base

Motor base is made with AISI 304 grade stainless steel investment casting.



Cross Sectional View

4" - Water Filled Stainless Steel Submersible Motor



4" - Water Filled Stainless Steel Submersible Motor

PERFORMANCE DATA

MOTOR TYPE	PN		Ka (N)	Un (V)	In	Ist/In	N (Min ⁻¹)	η %			Cos Ø			Tn (Nm)	L (mm)	Gross Weight (kg)
	kW	HP			(A)	50%		75%	100%	50%	75%	100%				
P4WS-03T	0.37	0.5	4000	380	1.30	3.90	2820	55.0	61.0	63.0	0.67	0.71	0.73	1.22	581	15.5
				400	1.20	4.00	2820	56.0	61.0	63.0	0.68	0.72	0.74	1.22		
				415	1.10	4.05	2820	55.0	61.0	63.0	0.67	0.71	0.73	1.22		
P4WS-05T	0.55	0.75	4000	380	1.80	4.05	2820	56.0	62.0	64.0	0.68	0.72	0.75	1.82	601	17.5
				400	1.70	4.10	2820	57.0	62.0	64.0	0.69	0.73	0.77	1.82		
				415	1.57	4.12	2820	57.0	62.0	64.0	0.70	0.74	0.76	1.82		
P4WS-07T	0.75	1.0	4000	380	2.20	4.10	2820	61.0	66.0	67.0	0.69	0.73	0.75	2.50	621	21.3
				400	2.10	4.15	2820	62.0	66.0	67.0	0.70	0.74	0.76	2.50		
				415	2.05	4.22	2820	62.0	66.0	67.0	0.70	0.74	0.76	2.50		
P4WS-11T	1.1	1.5	4000	380	3.00	4.15	2820	65.0	70.0	71.0	0.70	0.71	0.76	3.69	651	24
				400	2.90	4.20	2820	66.0	70.0	71.0	0.71	0.72	0.77	3.69		
				415	2.80	4.25	2820	66.0	70.0	71.0	0.71	0.72	0.77	3.69		
P4WS-15T	1.5	2.0	4000	380	3.90	4.28	2810	66.0	70.0	72.0	0.70	0.75	0.77	5.03	691	28
				400	3.80	4.30	2810	67.0	70.0	72.0	0.71	0.76	0.78	5.03		
				415	3.72	4.33	2810	67.0	70.0	72.0	0.71	0.76	0.78	5.03		
P4WS-22T	2.2	3.0	4000	380	5.40	4.40	2800	67.0	73.0	74.0	0.73	0.77	0.79	7.40	731	32
				400	5.30	4.45	2800	68.0	73.0	74.0	0.74	0.78	0.80	7.40		
				415	5.17	4.50	2800	68.0	73.0	74.0	0.74	0.78	0.80	7.40		
P4WS-30T	3.0	4.0	4000	380	7.20	4.40	2800	68.0	74.0	75.0	0.74	0.78	0.79	10.09	795	38
				400	7.10	4.50	2800	69.0	74.0	75.0	0.75	0.79	0.80	10.09		
				415	6.96	4.60	2800	69.0	74.0	75.0	0.75	0.79	0.80	10.09		
P4WS-40T	4.0	5.5	4000	380	10.26	4.55	2800	68.0	74.0	75.0	0.75	0.78	0.79	13.45	865	45
				400	9.62	4.60	2800	69.0	74.0	75.0	0.76	0.79	0.80	13.45		
				415	9.27	4.80	2800	69.0	74.0	75.0	0.76	0.79	0.80	13.45		
P4WS-55T	5.5	7.5	4000	380	14.10	4.75	2800	69.0	74.0	75.0	0.75	0.78	0.79	18.50	965	55
				400	13.23	4.80	2800	70.0	74.0	75.0	0.76	0.79	0.80	18.50		
				415	12.75	5.00	2800	70.0	74.0	75.0	0.76	0.79	0.80	18.50		

Pn - Rated Output

Ka - Thrust Load

Un - Rated Voltage

In - Rated Current

Ist/In - Locked Rotor Current / Rated Amperage

n - Rated Speed

η - Efficiency

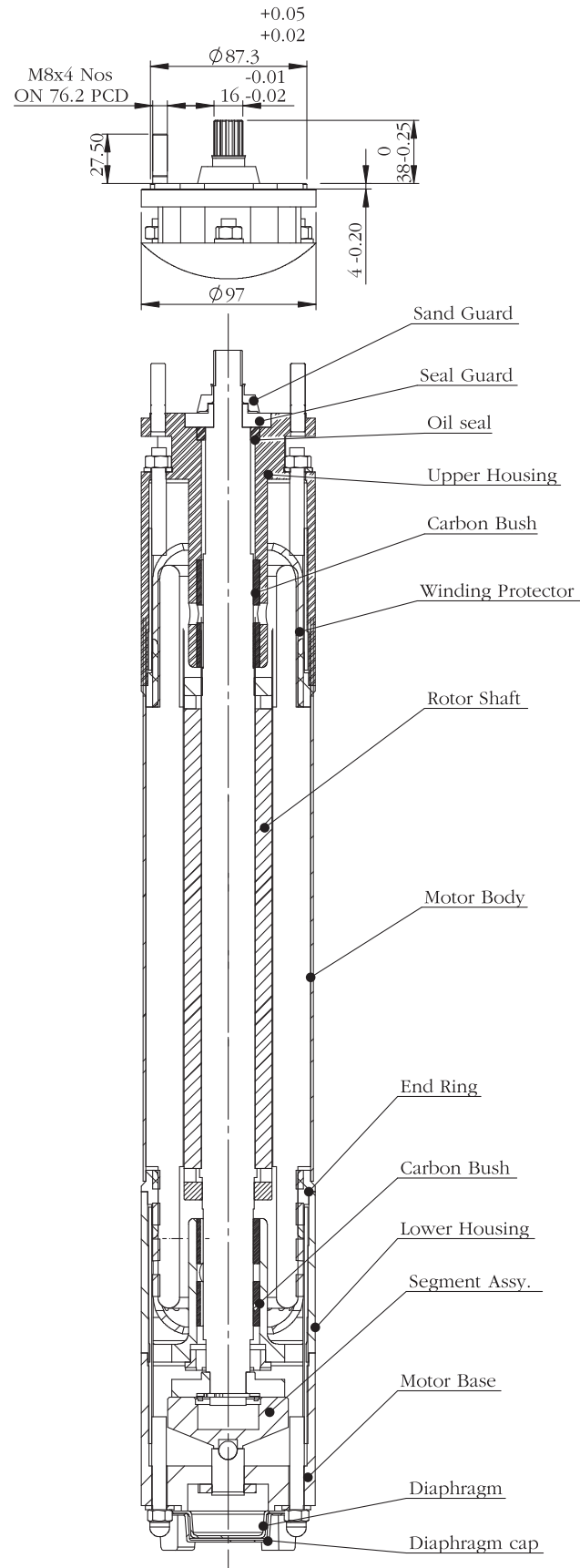
CosØ - Power Factor

Tn - Rated Torque

L - Motor Length

Cross Sectional View

4" - Water Filled Cast Iron Submersible Motor



4" - Water Filled Cast Iron Submersible Motor

PERFORMANCE DATA

MOTOR TYPE	PN		Ka (N)	Un (V)	In	Ist/In	N (Min ⁻¹)	η %			Cos Ø			Tn (Nm)	L (mm)	Gross Weight (kg)
	kW	HP			(A)			50%	75%	100%	50%	75%	100%			
P4WC-03T	0.37	0.5	4000	380	1.30	3.90	2820	55.0	61.0	63.0	0.67	0.71	0.73	1.22	581	15.5
				400	1.20	4.00	2820	56.0	61.0	63.0	0.68	0.72	0.74	1.22		
				415	1.10	4.05	2820	55.0	61.0	63.0	0.67	0.71	0.73	1.22		
P4WC-05T	0.55	0.75	4000	380	1.80	4.05	2820	56.0	62.0	64.0	0.68	0.72	0.75	1.82	601	17.5
				400	1.70	4.10	2820	57.0	62.0	64.0	0.69	0.73	0.77	1.82		
				415	1.57	4.12	2820	57.0	62.0	64.0	0.70	0.74	0.76	1.82		
P4WC-07T	0.75	1.0	4000	380	2.20	4.10	2820	61.0	66.0	67.0	0.69	0.73	0.75	2.50	621	21.3
				400	2.10	4.15	2820	62.0	66.0	67.0	0.70	0.74	0.76	2.50		
				415	2.05	4.22	2820	62.0	66.0	67.0	0.70	0.74	0.76	2.50		
P4WC-11T	1.1	1.5	4000	380	3.00	4.15	2820	65.0	70.0	71.0	0.70	0.71	0.76	3.69	651	24
				400	2.90	4.20	2820	66.0	70.0	71.0	0.71	0.72	0.77	3.69		
				415	2.80	4.25	2820	66.0	70.0	71.0	0.71	0.72	0.77	3.69		
P4WC-15T	1.5	2.0	4000	380	3.90	4.28	2810	66.0	70.0	72.0	0.70	0.75	0.77	5.03	691	28
				400	3.80	4.30	2810	67.0	70.0	72.0	0.71	0.76	0.78	5.03		
				415	3.72	4.33	2810	67.0	70.0	72.0	0.71	0.76	0.78	5.03		
P4WC-22T	2.2	3.0	4000	380	5.40	4.40	2800	67.0	73.0	74.0	0.73	0.77	0.79	7.40	731	32
				400	5.30	4.45	2800	68.0	73.0	74.0	0.74	0.78	0.80	7.40		
				415	5.17	4.50	2800	68.0	73.0	74.0	0.74	0.78	0.80	7.40		
P4WC-30T	3.0	4.0	4000	380	7.20	4.40	2800	68.0	74.0	75.0	0.74	0.78	0.79	10.09	795	38
				400	7.10	4.50	2800	69.0	74.0	75.0	0.75	0.79	0.80	10.09		
				415	6.96	4.60	2800	69.0	74.0	75.0	0.75	0.79	0.80	10.09		
P4WC-40T	4.0	5.5	4000	380	10.26	4.55	2800	68.0	74.0	75.0	0.75	0.78	0.79	13.45	865	45
				400	9.62	4.60	2800	69.0	74.0	75.0	0.76	0.79	0.80	13.45		
				415	9.27	4.80	2800	69.0	74.0	75.0	0.76	0.79	0.80	13.45		
P4WC-55T	5.5	7.5	4000	380	14.10	4.75	2800	69.0	74.0	75.0	0.75	0.78	0.79	18.50	965	55
				400	13.23	4.80	2800	70.0	74.0	75.0	0.76	0.79	0.80	18.50		
				415	12.75	5.00	2800	70.0	74.0	75.0	0.76	0.79	0.80	18.50		

Pn - Rated Output

Ka - Thrust Load

Un - Rated Voltage

In - Rated Current

Ist/In - Locked Rotor Current / Rated Amperage

n - Rated Speed

η - Efficiency

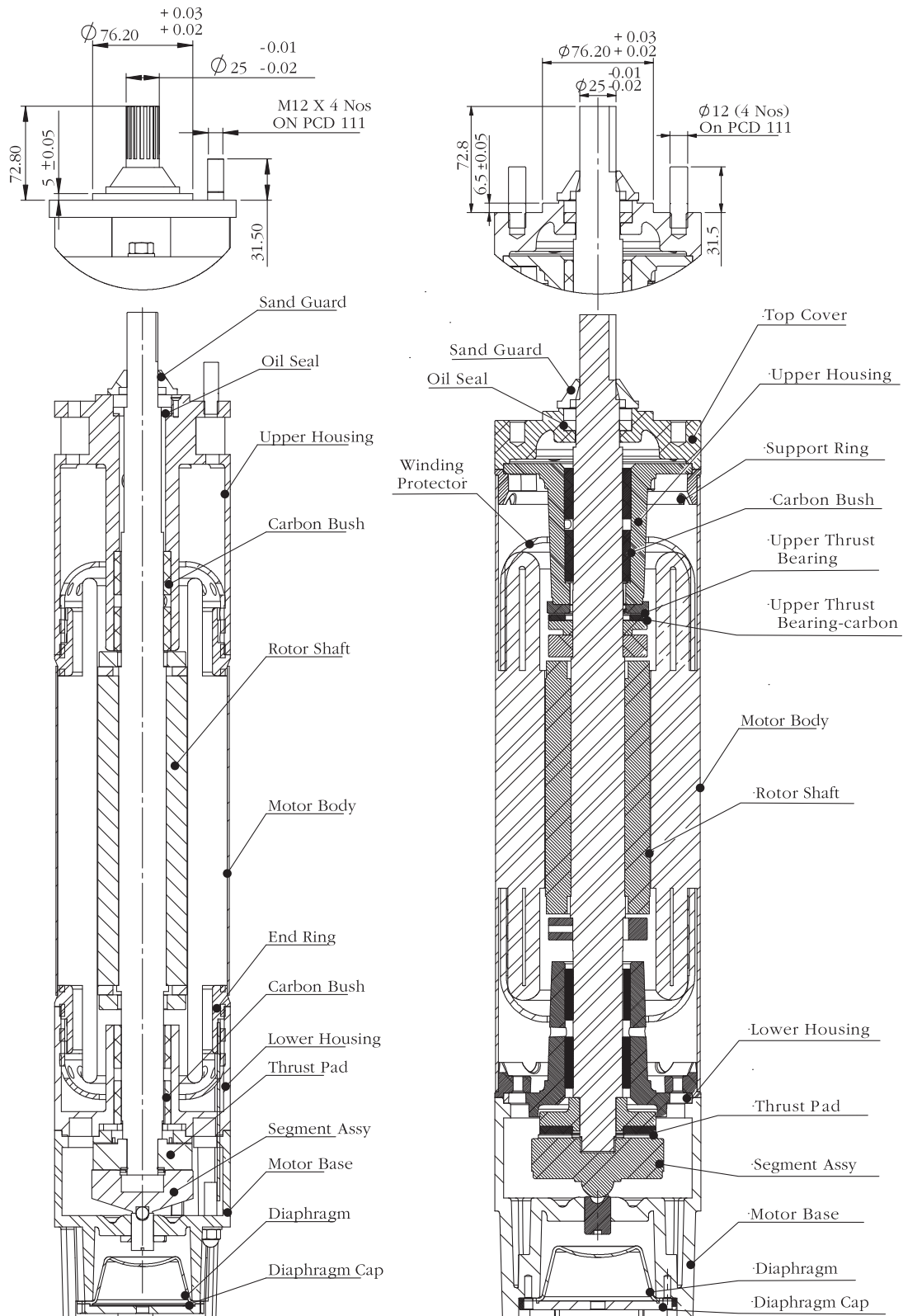
CosØ - Power Factor

Tn - Rated Torque

L - Motor Length

Cross Sectional View

6" - Water Filled Stainless Steel Submersible Motor



6" - Water Filled Stainless Steel Submersible Motor

PERFORMANCE DATA

MOTOR TYPE	PN		Ka (N)	Un (V)	In	Ist/In	N (Min ⁻¹)	η %			Cos Ø			Tn (Nm)	L (mm)	Gross Weight (kg)
	kW	HP			(A)			50%	75%	100%	50%	75%	100%			
P6WS-40T	4	5.5	27500	380	10.10	4.12	2890	69.3	73.0	75.5	0.61	0.71	0.80	13.22	754	45
				400	9.50	4.02	2910	70.8	74.3	76.0	0.60	0.72	0.80	13.13		
				415	9.50	4.12	2910	71.3	74.6	76.0	0.58	0.69	0.77	13.13		
P6WS-55T	5.5	7.5	27500	380	13.6	4.12	2855	71.0	75.0	76.5	0.63	0.75	0.82	18.40	814	50
				400	12.8	4.02	2870	72.8	76.3	77.5	0.61	0.73	0.81	18.31		
				415	12.7	4.12	2885	73.0	76.5	78.0	0.60	0.72	0.80	18.22		
P6WS-75T	7.5	10	27500	380	18.0	5.20	2860	72.8	76.0	77.5	0.64	0.75	0.82	25.05	864	54
				400	17.1	5.02	2870	74.0	77.3	78.5	0.62	0.74	0.81	24.97		
				415	16.6	4.94	2880	74.8	77.8	79.0	0.60	0.71	0.80	24.88		
P6WS-93T	9.3	12.5	27500	380	21.7	5.22	2845	74.0	77.8	79.5	0.65	0.75	0.82	31.23	914	64
				400	20.8	5.12	2860	76.3	79.3	80.5	0.62	0.74	0.80	31.07		
				415	20.4	5.02	2875	76.5	79.5	80.7	0.60	0.72	0.79	30.90		
P6WS-110T	11	15	27500	380	25.1	5.24	2850	75.3	78.3	80.2	0.65	0.75	0.83	36.87	964	70
				400	24.0	5.12	2870	76.8	80.3	81.5	0.62	0.74	0.82	36.62		
				415	23.8	5.30	2880	77.2	80.6	81.6	0.6	0.72	0.80	36.50		
P6WS-130T	13	17.5	27500	380	29.5	5.00	2860	75.8	78.8	80.5	0.64	0.76	0.83	43.43	989	74
				400	28.5	5.10	2880	77.3	80.3	81.5	0.61	0.75	0.81	43.12		
				415	28.4	5.20	2880	77.8	80.8	82.0	0.59	0.72	0.78	43.12		
P6WS-150T	15	20	27500	380	33.2	5.20	2860	76.8	80.0	81.8	0.65	0.77	0.84	50.11	1014	80
				400	31.6	5.10	2880	78.3	81.3	82.5	0.64	0.76	0.83	49.76		
				415	31.5	5.28	2880	78.8	81.8	83.0	0.60	0.73	0.80	49.76		
P6WS-185T	18.5	25	27500	380	40.9	5.12	2860	77.3	80.3	81.9	0.66	0.78	0.84	61.80	1064	90
				400	39.4	5.20	2880	78.4	81.4	82.5	0.64	0.77	0.82	61.37		
				415	39.5	5.25	2880	78.8	81.8	83.1	0.61	0.73	0.80	61.37		
P6WS-220T	22	30	27500	380	46.5	5.10	2870	78.3	81.6	83.6	0.70	0.80	0.86	73.24	1114	95
				400	44.6	5.20	2890	79.2	82.8	84.0	0.66	0.77	0.85	72.73		
				415	45.2	5.15	2900	79.7	83.0	84.3	0.62	0.75	0.83	72.48		
P6WS-260T	26	35	27500	380	56.2	5.18	2870	78.7	81.8	83.6	0.70	0.79	0.86	86.56	1154	101
				400	55.4	5.20	2890	79.3	82.8	84.0	0.65	0.77	0.84	85.96		
				415	56.0	5.15	2900	79.9	83.1	84.3	0.62	0.75	0.82	85.66		
P6WS-300T	30	40	27500	380	63.2	5.22	2890	78.9	82.8	84.5	0.71	0.80	0.87	99.18	1194	117
				400	62.4	5.30	2900	80.1	83.8	85.0	0.65	0.79	0.86	98.84		
				415	63.8	5.32	2900	81.2	84.3	85.6	0.63	0.75	0.83	98.84		
P6WS-370T	37	50	27500	380	78.5	5.35	2890	79.7	82.8	84.2	0.71	0.80	0.87	123.18	1224	128
				400	77.4	5.30	2900	80.2	83.8	85.0	0.66	0.79	0.86	121.90		
				415	79.0	5.32	2900	81.2	84.0	85.2	0.63	0.75	0.84	121.90		

Pn - Rated Output

Ka - Thrust Load

Un - Rated Voltage

In - Rated Current

Ist/In - Locked Rotor Current / Rated Amperage

n - Rated Speed

η - Efficiency

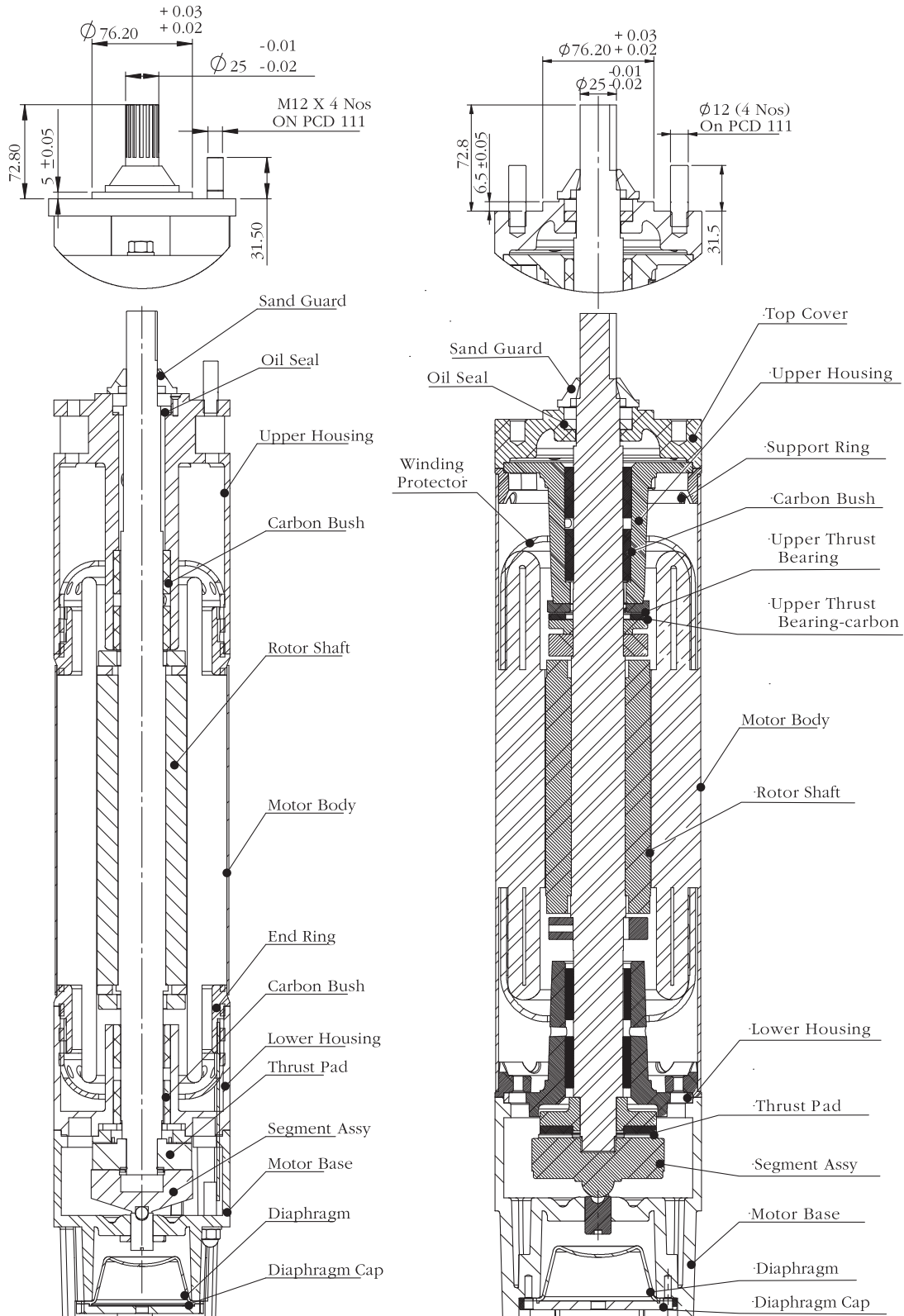
CosØ - Power Factor

Tn - Rated Torque

L - Motor Length

Cross Sectional View

6" - Water Filled Cast Iron Stainless Steel Submersible Motor



6" - Water Filled Cast Iron Submersible Motor

PERFORMANCE DATA

MOTOR TYPE	PN		Ka (N)	Un (V)	In	Ist/In	N (Min ⁻¹)	η %			Cos Ø			Tn (Nm)	L (mm)	Gross Weight (kg)
	kW	HP			(A)			50%	75%	100%	50%	75%	100%			
P6WC-40T	4	5.5	27500	380	10.10	4.12	2890	69.3	73.0	75.5	0.61	0.71	0.80	13.22	754	45
				400	9.50	4.02	2910	70.8	74.3	76.0	0.60	0.72	0.80	13.13		
				415	9.50	4.12	2910	71.3	74.6	76.0	0.58	0.69	0.77	13.13		
P6WC-55T	5.5	7.5	27500	380	13.6	4.12	2855	71.0	75.0	76.5	0.63	0.75	0.82	18.40	814	50
				400	12.8	4.02	2870	72.8	76.3	77.5	0.61	0.73	0.81	18.31		
				415	12.7	4.12	2885	73.0	76.5	78.0	0.60	0.72	0.80	18.22		
P6WC-75T	7.5	10	27500	380	18.0	5.20	2860	72.8	76.0	77.5	0.64	0.75	0.82	25.05	864	54
				400	17.1	5.02	2870	74.0	77.3	78.5	0.62	0.74	0.81	24.97		
				415	16.6	4.94	2880	74.8	77.8	79.0	0.60	0.71	0.80	24.88		
P6WC-93T	9.3	12.5	27500	380	21.7	5.22	2845	74.0	77.8	79.5	0.65	0.75	0.82	31.23	914	64
				400	20.8	5.12	2860	76.3	79.3	80.5	0.62	0.74	0.80	31.07		
				415	20.4	5.02	2875	76.5	79.5	80.7	0.60	0.72	0.79	30.90		
P6WC-110T	11	15	27500	380	25.1	5.24	2850	75.3	78.3	80.2	0.65	0.75	0.83	36.87	964	70
				400	24.0	5.12	2870	76.8	80.3	81.5	0.62	0.74	0.82	36.62		
				415	23.8	5.30	2880	77.2	80.6	81.6	0.6	0.72	0.80	36.50		
P6WC-130T	13	17.5	27500	380	29.5	5.00	2860	75.8	78.8	80.5	0.64	0.76	0.83	43.43	989	74
				400	28.5	5.10	2880	77.3	80.3	81.5	0.61	0.75	0.81	43.12		
				415	28.4	5.20	2880	77.8	80.8	82.0	0.59	0.72	0.78	43.12		
P6WC-150T	15	20	27500	380	33.2	5.20	2860	76.8	80.0	81.8	0.65	0.77	0.84	50.11	1014	80
				400	31.6	5.10	2880	78.3	81.3	82.5	0.64	0.76	0.83	49.76		
				415	31.5	5.28	2880	78.8	81.8	83.0	0.60	0.73	0.80	49.76		
P6WC-185T	18.5	25	27500	380	40.9	5.12	2860	77.3	80.3	81.9	0.66	0.78	0.84	61.80	1064	90
				400	39.4	5.20	2880	78.4	81.4	82.5	0.64	0.77	0.82	61.37		
				415	39.5	5.25	2880	78.8	81.8	83.1	0.61	0.73	0.80	61.37		
P6WC-220T	22	30	27500	380	46.5	5.10	2870	78.3	81.6	83.6	0.70	0.80	0.86	73.24	1114	95
				400	44.6	5.20	2890	79.2	82.8	84.0	0.66	0.77	0.85	72.73		
				415	45.2	5.15	2900	79.7	83.0	84.3	0.62	0.75	0.83	72.48		
P6WC-260T	26	35	27500	380	56.2	5.18	2870	78.7	81.8	83.6	0.70	0.79	0.86	86.56	1154	101
				400	55.4	5.20	2890	79.3	82.8	84.0	0.65	0.77	0.84	85.96		
				415	56.0	5.15	2900	79.9	83.1	84.3	0.62	0.75	0.82	85.66		
P6WC-300T	30	40	27500	380	63.2	5.22	2890	78.9	82.8	84.5	0.71	0.80	0.87	99.18	1194	117
				400	62.4	5.30	2900	80.1	83.8	85.0	0.65	0.79	0.86	98.84		
				415	63.8	5.32	2900	81.2	84.3	85.6	0.63	0.75	0.83	98.84		
P6WC-370T	37	50	27500	380	78.5	5.35	2890	79.7	82.8	84.2	0.71	0.80	0.87	123.18	1224	128
				400	77.4	5.30	2900	80.2	83.8	85.0	0.66	0.79	0.86	121.90		
				415	79.0	5.32	2900	81.2	84.0	85.2	0.63	0.75	0.84	121.90		

Pn - Rated Output

Ka - Thrust Load

Un - Rated Voltage

In - Rated Current

Ist/In - Locked Rotor Current / Rated Amperage

n - Rated Speed

η - Efficiency

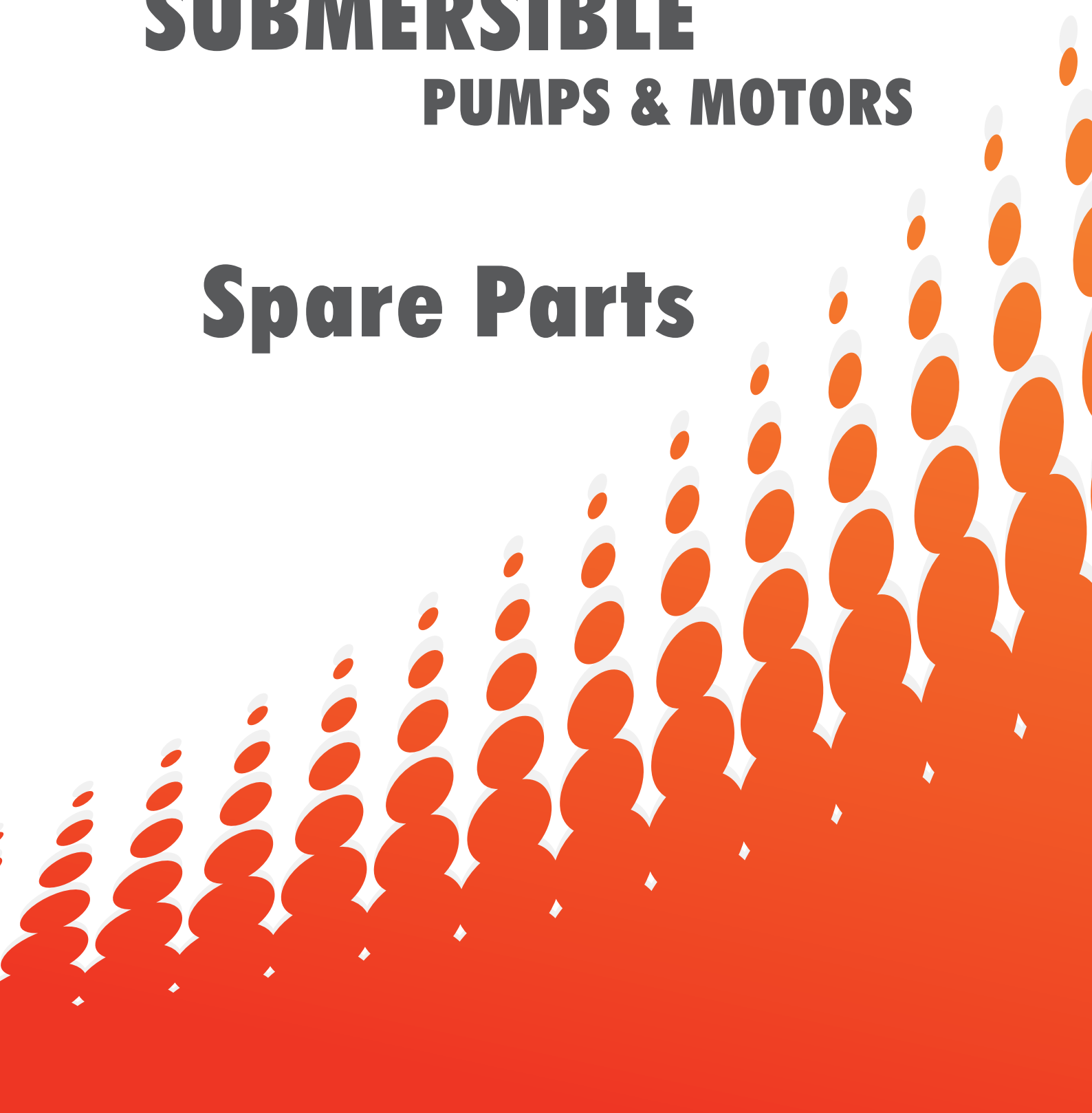
CosØ - Power Factor

Tn - Rated Torque

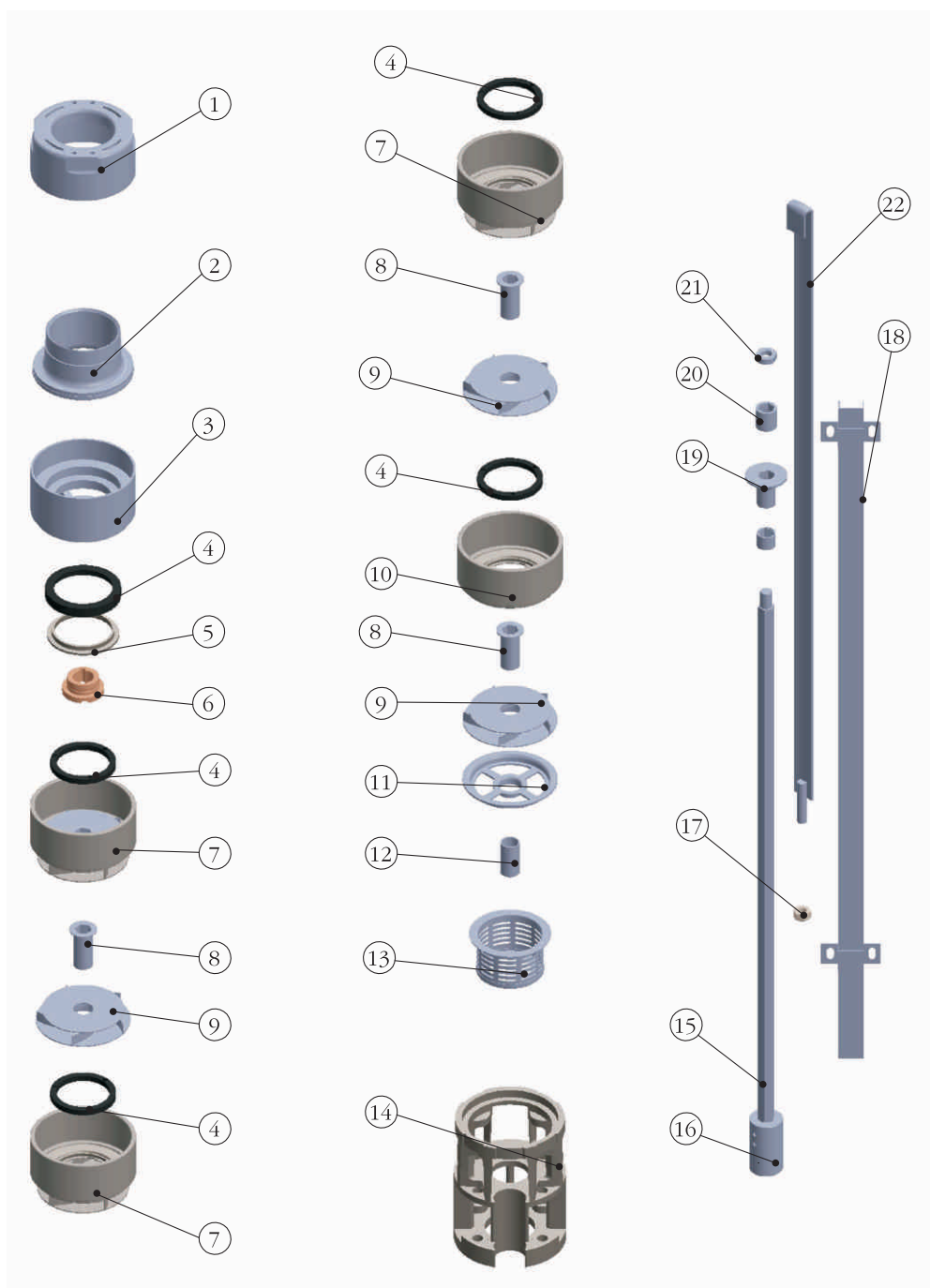
L - Motor Length

SUBMERSIBLE PUMPS & MOTORS

Spare Parts



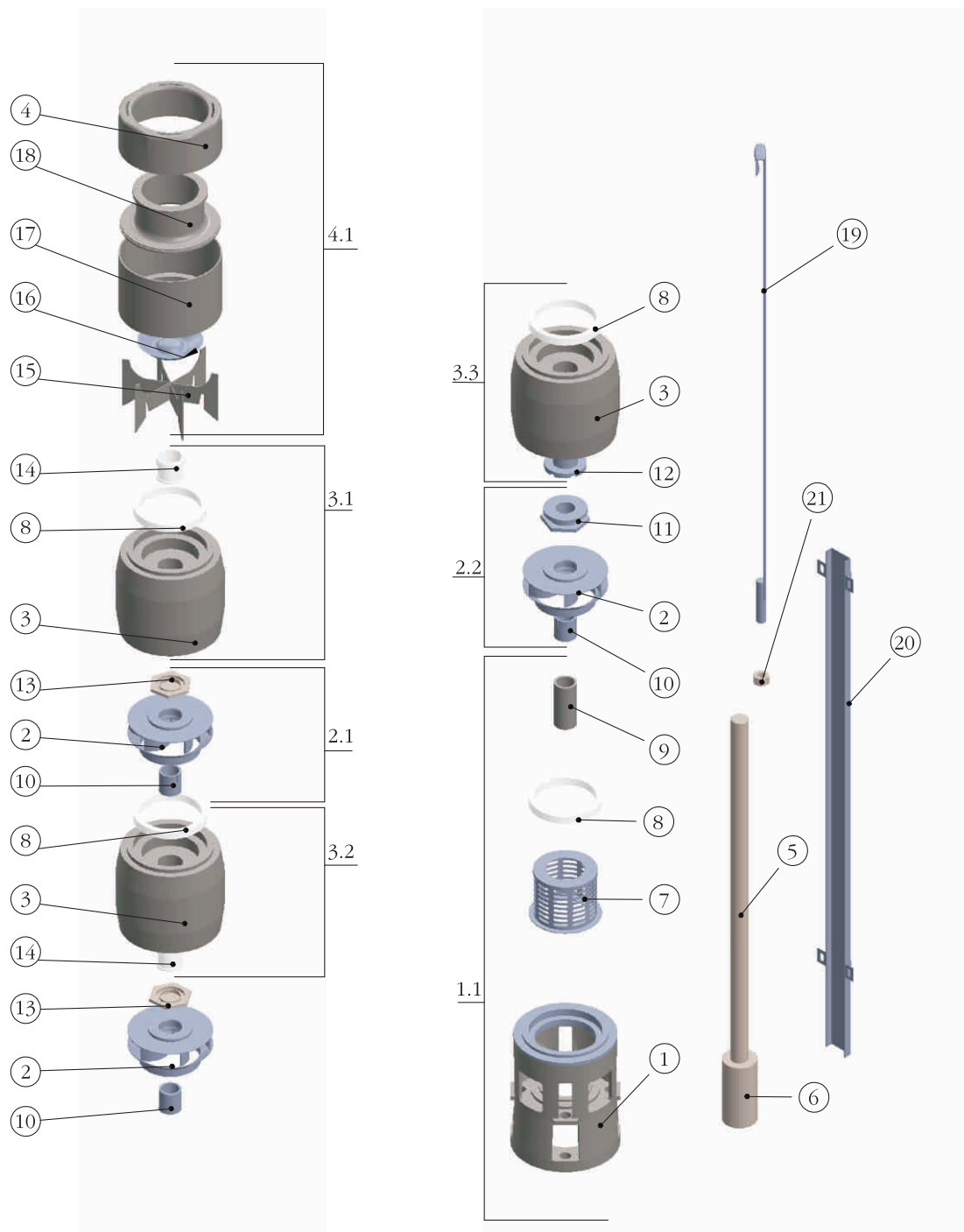
4" - Stainless Steel Submersible Pump - Exploded View



PART No.	PART NAME
1	NRV Cover
2	NRV Thread Pipe
3	NRV Casing
4	Neck Ring
5	Neck Ring Plate
6	LTB Bush
7	Top Diffuser (Complete)
8	Collet
9	Impeller
10	Bottom Diffuser
11	Bush Guide

PART No.	PART NAME
12	Sleeve
13	Strainer
14	Suction Casing
15	Pump Shaft
16	Coupling Assembly
17	Hex Nut
18	Cable Guard
19	Up Thrust Sleeve
20	Thrust Bush
21	Nut
22	Locking Strip

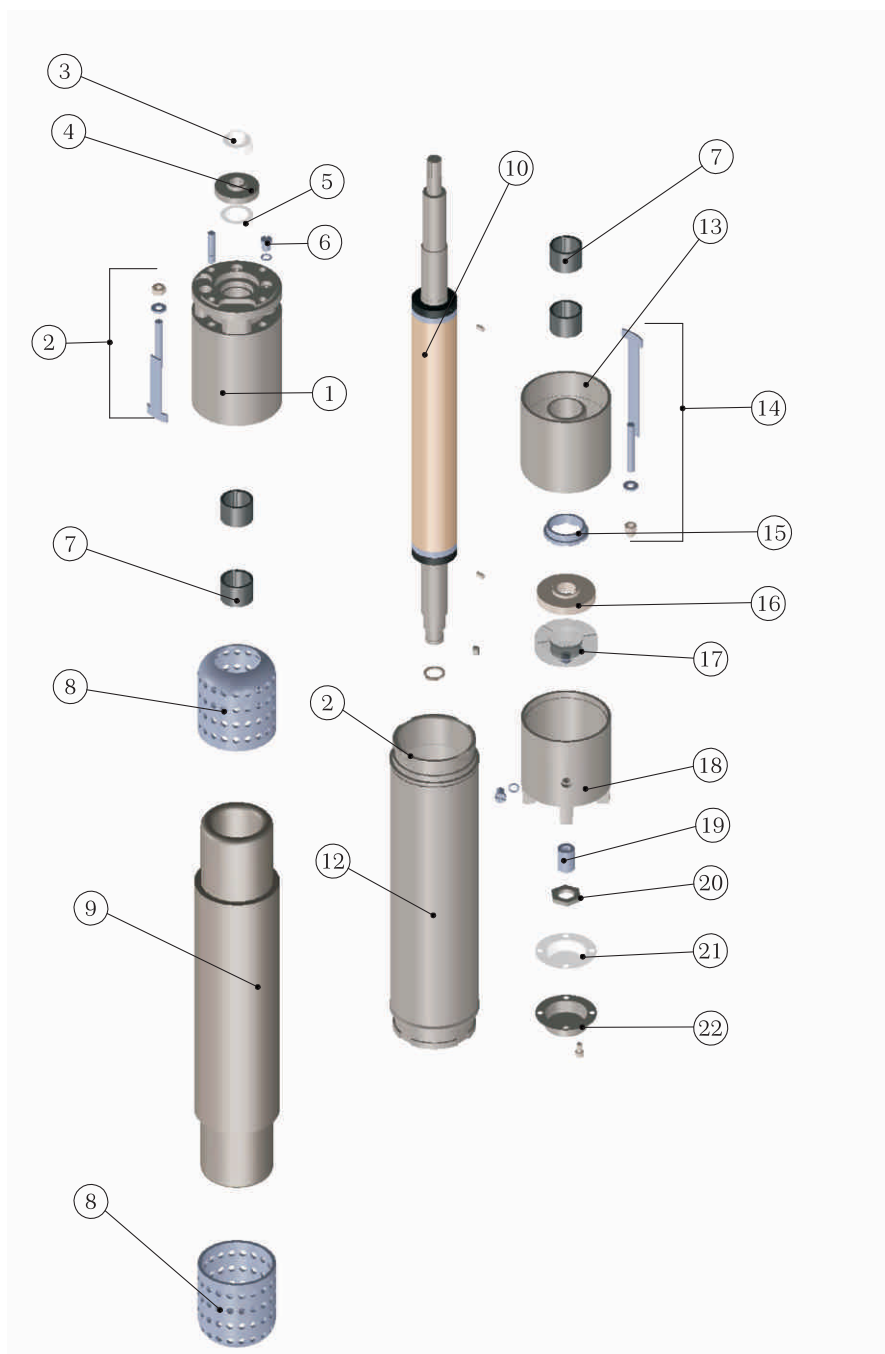
6" - Stainless Steel Submersible Pump - Exploded View (30 - 60 m³/h)



PART No.	PART NAME
1	Suction Casing
1.1	Suction Casing (complete)
2	Impeller
2.2	Bottom Impeller (complete)
3	Diffuser
3.1	Stage Diffuser (complete)
3.2	Stage Diffuser (complete)
3.3	Bottom Diffuser (complete)
4	NRV Cover
4.1	NRV Assembly (complete)
5	Pump Shaft
6	Coupling Assembly
7	Strainer
8	Neck Ring

PART No.	PART NAME
9	Sleeve
10	Collet
11	Thrust Up Sleeve
12	LTB Bush
13	Collet Nut
14	Bearing Bush
15	Cone Guide Assembly
16	NRV Cone
17	NRV Casing
18	NRV Thread Cover
19	Locking Strip
20	Cable Guard
21	Hex Nut

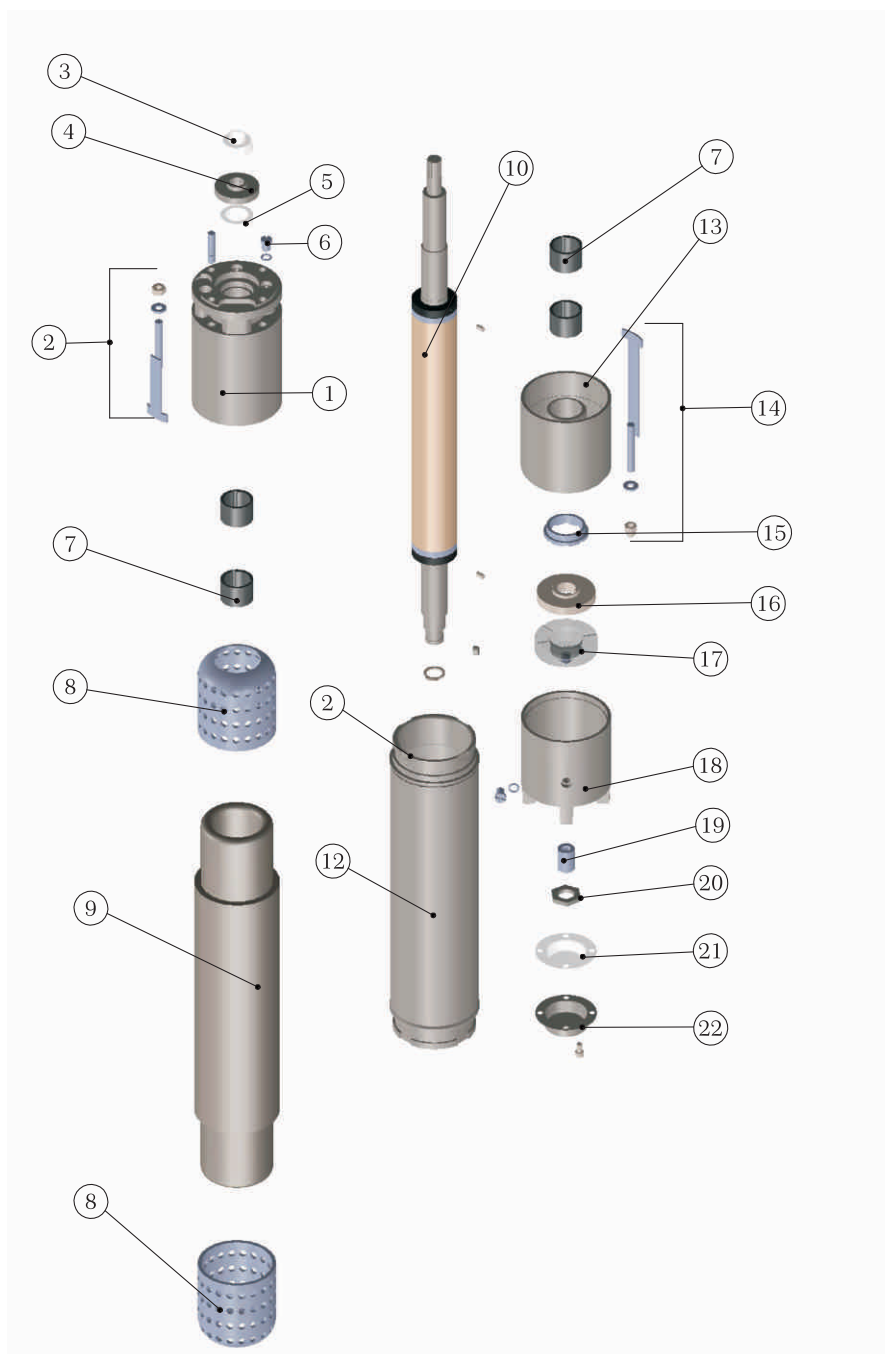
4" - Water Filled Stainless Steel Submersible Motor - Exploded View



PART No.	PART NAME
1	Upper Housing
2	T-bolt Assembly
3	Sand Guard
4	Seal Guard
5	Oil Seal
6	Drain Plug
7	Carbon Bush
8	Winding Protector
9	Stator
10	Shaft
11	End Ring

PART No.	PART NAME
12	Motor Body
13	Lower Housing
14	T - Bolt Lower Housing
15	Thrust Ring
16	Thrust Pad
17	Segment Carrier
18	Motor Base
19	Rocker Screw
20	Hex Nut
21	Rubber Diaphragm
22	Diaphragm Cap

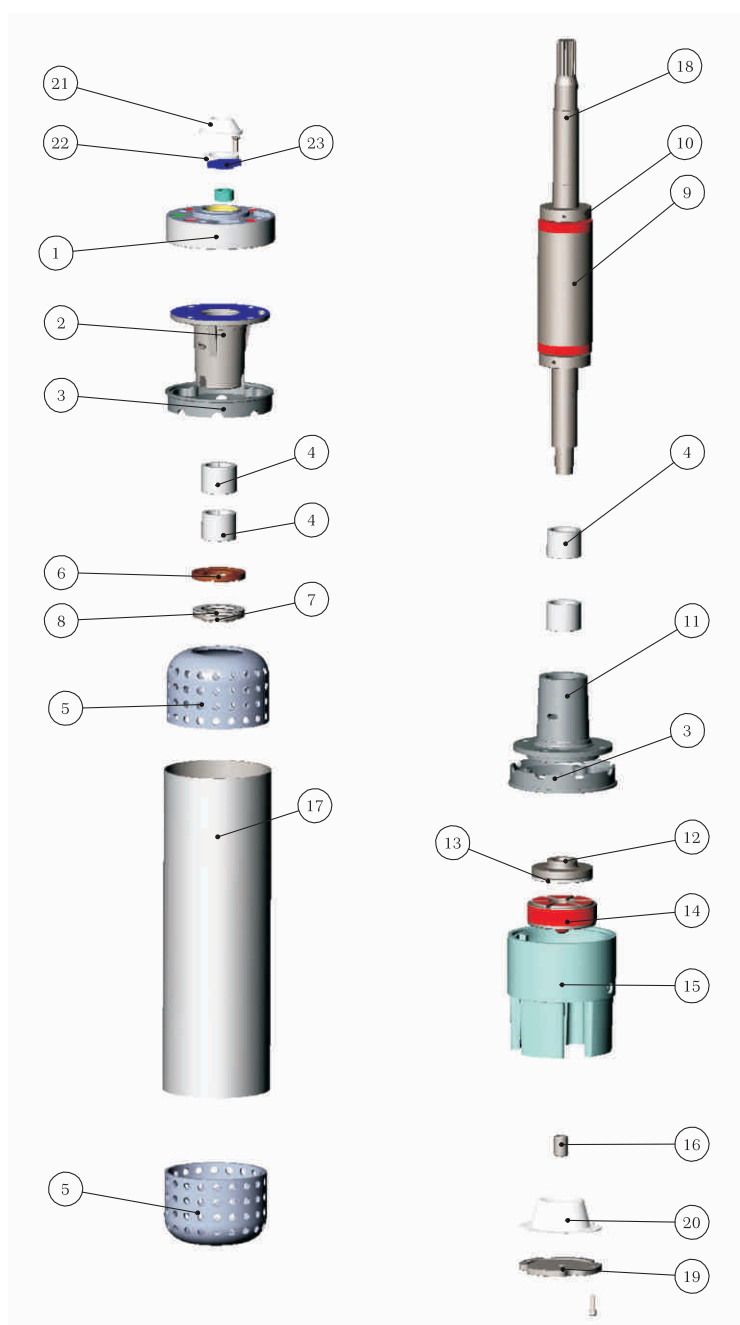
4" - Water Filled Cast Iron Submersible Motor - Exploded View



PART No.	PART NAME
1	Upper Housing
2	T-bolt Assembly
3	Sand Guard
4	Seal Guard
5	Oil Seal
6	Drain Plug
7	Carbon Bush
8	Winding Protector
9	Stator
10	Shaft
11	End Ring

PART No.	PART NAME
12	Motor Body
13	Lower Housing
14	T - Bolt Lower Housing
15	Thrust Ring
16	Thrust Pad
17	Segment Carrier
18	Motor Base
19	Rocker Screw
20	Hex Nut
21	Rubber Diaphragm
22	Diaphragm Cap

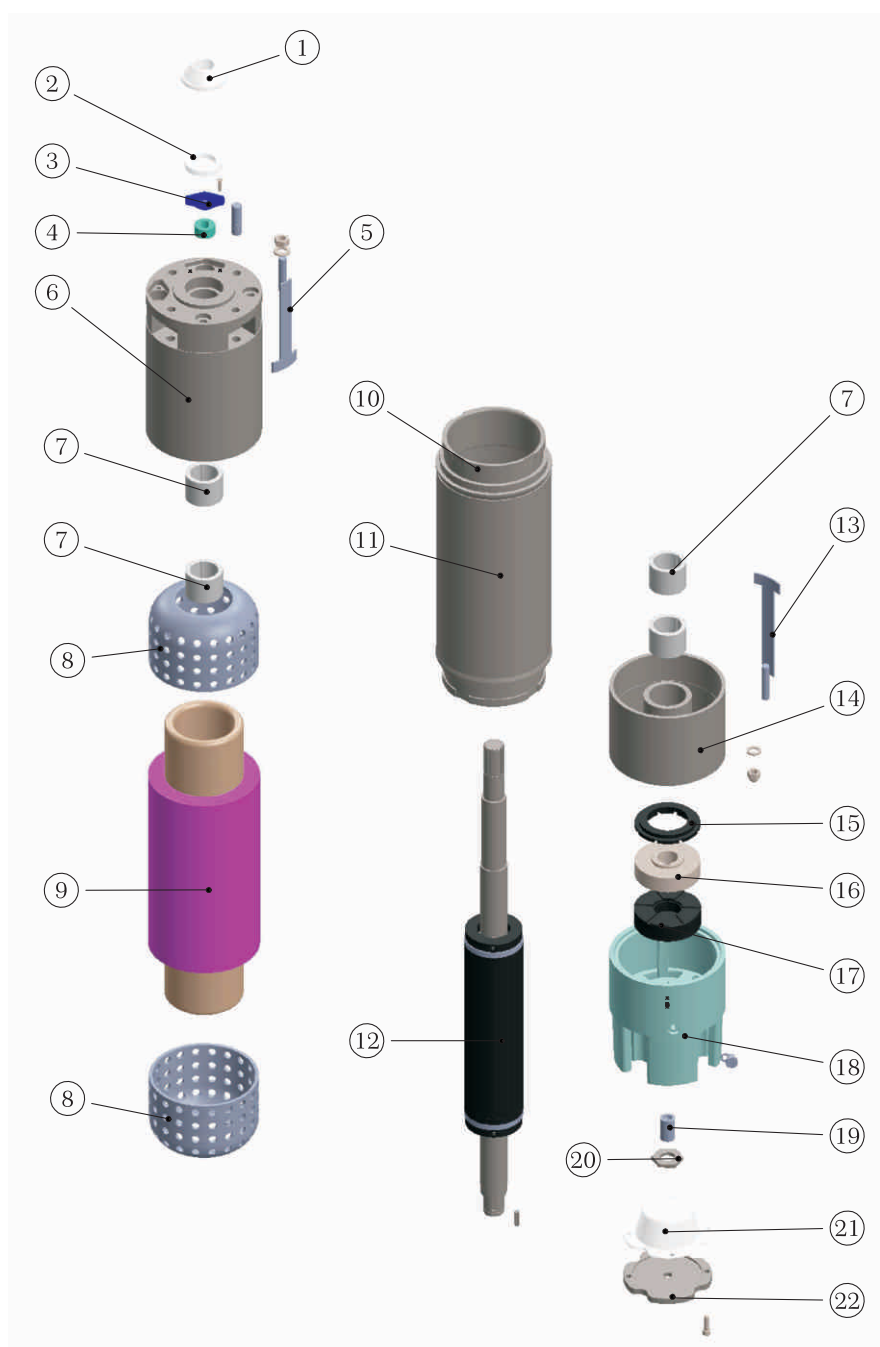
6" - Water Filled Stainless Steel Submersible Motor - Exploded View (5 - 12.5HP)



PART No.	PART NAME
1	Top Cover
2	Upper Housing
3	Support Ring
4	Carbon Bush
5	Winding Protector
6	Upper Thrust Bearing
7	Upper Thrust Pad - Base
8	Upper Thrust Bearing - Carbon
9	Rotor
10	Balancing Ring
11	Lower Housing

PART No.	PART NAME
12	Thrust Pad Base
13	Thrust Pad Base - Carbon
14	Thrust Bearing - Base
15	Motor Base
16	Anchor Pin
17	Motor Body
18	Motor Shaft
19	Base Cover
20	Diaphragm
21	Rubber Sand Guard
22	Sand Guard
23	Oil Seal

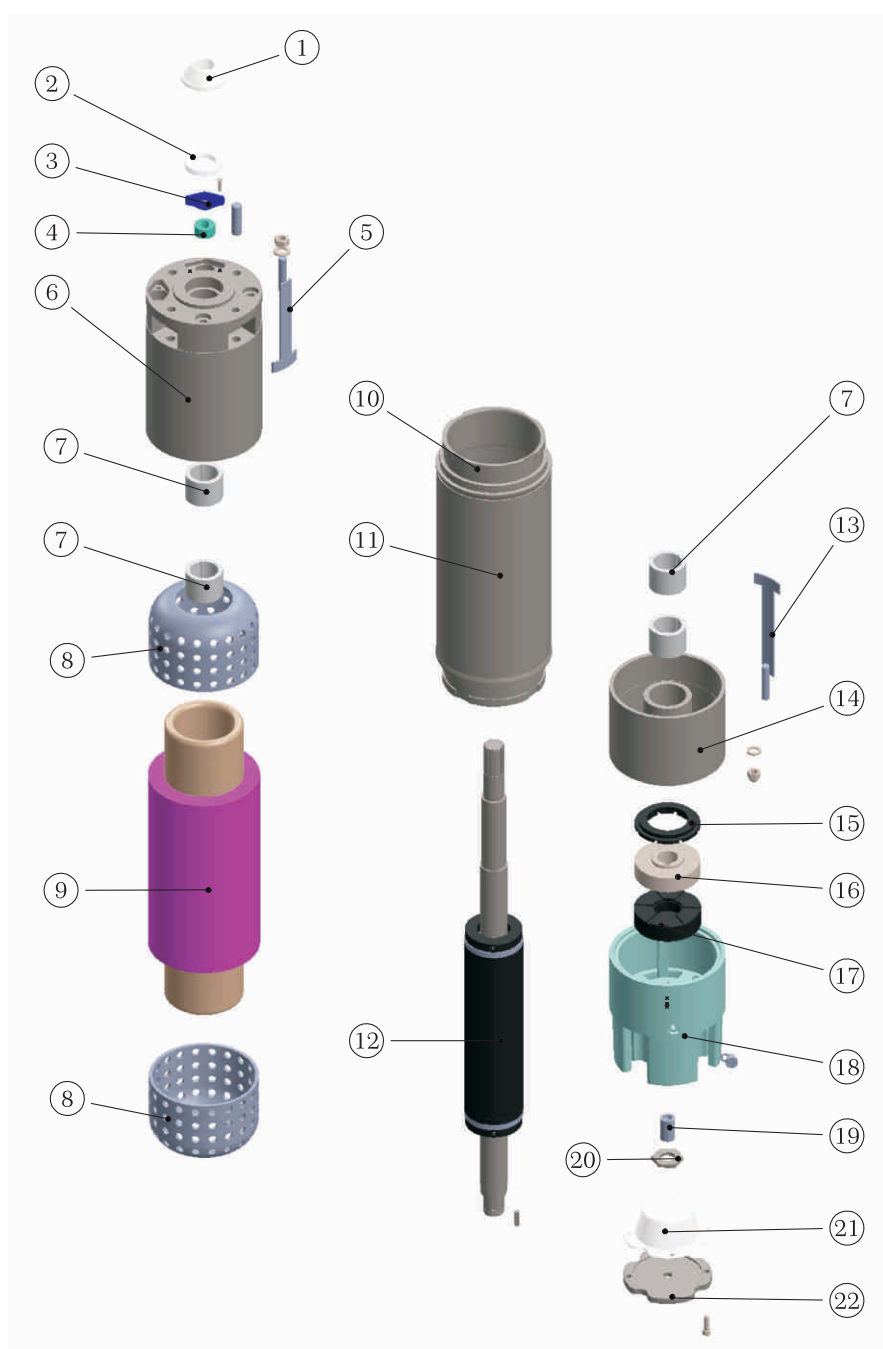
6" - Water Filled Stainless Steel Submersible Motor - Exploded View (15 - 30HP)



PART No.	PART NAME
1	Sand Guard
2	Oil Seal
3	Grommet Plate
4	Grommet
5	T - Bolt Upper Housing
6	Upper Housing
7	Carbon Bush
8	Winding Protector
9	Stator
10	End Ring
11	Motor Body

PART No.	PART NAME
12	Rotor
13	T - Bolt Lower Housing
14	Lower Housing
15	Thrust Ring
16	Thrust Pad
17	Segment Carrier
18	Motor Base
19	Rocker Screw
20	Hex Nut
21	Rubber Diaphragm
22	Diaphragm Cap

6" - Water Filled Cast Iron Submersible Motor - Exploded View (5 - 30HP)



PART No.	PART NAME
1	Sand Guard
2	Oil Seal
3	Grommet Plate
4	Grommet
5	T - Bolt Upper Housing
6	Upper Housing
7	Carbon Bush
8	Winding Protector
9	Stator
10	End Ring
11	Motor Body

PART No.	PART NAME
12	Rotor
13	T - Bolt Lower Housing
14	Lower Housing
15	Thrust Ring
16	Thrust Pad
17	Segment Carrier
18	Motor Base
19	Rocker Screw
20	Hex Nut
21	Rubber Diaphragm
22	Diaphragm Cap

Cable Sizing

Cable Dimension at 1 x 230V, 50Hz, Voltage drop : 5%

Motor	Pn		In (Amps)	COS Ø	Cable Size in Sq.mm				
	HP	kW			1.5	2.5	4	6	10
4" WF	0.50	0.37	3.40	0.83	110	183	291	435	718
4" WF	0.75	0.55	4.70	0.82	88	146	233	348	576
4" WF	1.00	0.75	6.10	0.82	75	125	199	298	492
4" WF	1.50	1.10	8.40	0.85	53	88	141	211	348
4" WF	2.00	1.50	10.6	0.87	42	70	112	167	277
4" WF	3.00	2.20	14.8	0.90	31	51	81	121	201
4" WF	5.50	4.00	24.8	0.90	20	32	51	71	122

Cable Dimension at 3 x 400V, 50Hz, Voltage drop : 3%

Motor	Pn		In (Amps)	COS Ø	Cable Size in Sq.mm															
	HP	kW			1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	360
4” WF	0.5	0.37	1.20	0.74	411	683	-	-	-	-	-	-								
4” WF	0.75	0.55	1.70	0.77	296	492	783	-	-	-	-	-								
4” WF	1.0	0.75	2.10	0.76	243	404	643	959	-	-	-	-								
4” WF	1.5	1.1	2.90	0.77	182	302	481	717	-	-	-	-								
4” WF	2.0	1.5	3.80	0.78	146	243	387	576	949	-	-	-								
4” WF	3.0	2.2	5.30	0.80	107	179	284	424	699	-	-	-								
4” WF	4.0	3.0	7.10	0.80	74	124	197	294	484	762	-	-								
4” WF	5.5	4.0	9.60	0.80	55	91	146	217	358	564	861	-								
4” WF	7.5	5.5	13.2	0.80	46	76	121	181	298	470	717	979								

Cable Dimension at 3 x 400V, 50Hz, Voltage drop : 3%

Motor	Pn		In (Amps)	COS Ø	Cable Size in Sq.mm															
	HP	kW			1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	360
6" WF	5.5	4	8.60	0.81	74	124	197	294	484	762	-	-	-	-	-	-	-	-	-	-
6" WF	7.5	5.5	12.40	0.83	50	84	133	199	328	517	791	-	-	-	-	-	-	-	-	-
6" WF	10	7.5	16.50	0.83	38	63	100	150	247	389	594	812	-	-	-	-	-	-	-	-
6" WF	12.5	9.3	20.20	0.82		52	83	124	204	321	490	669	921	-	-	-	-	-	-	-
6" WF	15	11	23.60	0.82		45	71	106	174	275	419	573	789	-	-	-	-	-	-	-
6" WF	17.5	13	27.90	0.82			60	89	148	232	355	484	667	891	-	-	-	-	-	-
6" WF	20	15	31.20	0.84			52	78	129	204	311	426	588	787	-	-	-	-	-	-
6" WF	25	18.5	38.70	0.83				64	105	166	253	346	477	639	821	986	-	-	-	-
6" WF	30	22	44.40	0.85					90	142	217	297	410	550	710	855	-	-	-	-
6" WF	40	30	59.20	0.86					67	105	161	221	305	410	531	640	759	882	-	-
6" WF	50	37	73.00	0.86						85	131	179	248	333	430	519	615	716	852	978
Maximum Current for Cable (A)					18.5	25	35	44	62	81	109	126	153	196	238	276	319	364	430	497

Maximum cable length in meters from motor starter to pump.

Generator Rating Selection Table for Submersible Motors

Submersible Motor Rating		Generator Power	
		Direct Starting	
kW	HP	kW	KVA
2.2	3	6	7.5
3	4	8	10
4	5.5	10	12.5
5.5	7.5	12.5	15.6
7.5	10	15	18.8
9.3	12.5	18.5	23.5
11	15	22.5	28
13	17.5	26.4	33
15	20	30	38
18.5	25	40	50
22	30	45	57
26	35	52	65
30	40	60	75
37	50	75	94
45	60	90	112
51.5	70	105	131
55	75	120	150
66	90	135	170
75	100	150	190
93	125	185	230
110	150	210	260
132	180	260	323
147	200	280	360
165	225	325	404
185	250	365	454

Submersible Motor Rating		Generator Power	
		YΔ Starting	
kW	HP	kW	KVA
2.2	3	-	-
3	4	8	7.5
4	5.5	8	10
5.5	7.5	10.8	13.5
7.5	10	14	17.5
9.3	12.5	17.2	21.5
11	15	20.5	25.5
13	17.5	23.6	29.5
15	20	27	34
18.5	25	33	42
22	30	40	50
26	35	45	57
30	40	52	65
37	50	65	81
45	60	77	97
51.5	70	90	112
55	75	102	128
66	90	115	144
75	100	128	160
93	125	158	198
110	150	190	237
132	180	228	284
147	200	254	316
165	225	285	354
185	250	320	398

Disclaimer :

The above shown selection chart is for general application. For specific condition we recommend you consult us or generator manufacturer for proper selection.

Friction Loss Tables

Friction loss table - Ordinary water pipes

m³/h	l/min	Nominal pipe diameter in (inches) and internal diameter in (mm)											
		½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	3 ½"	4"	5"	6"
		15.75	21.25	27.00	35.75	41.25	52.50	68.00	80.25	92.50	105.0	130.0	155.5
		Upper figures indicate the velocity of water in m/sec & Lower figures indicate friction loss in meters of head per 100 meters of straight pipes.											
0.6	10	0.8550 9.910	0.470 2.407	0.292 0.784									
0.9	15	1.282 20.11	0.705 4.862	0.438 1.570	0.249 0.416								
1.2	20	1.710 33.53	0.940 8.035	0.584 2.588	0.331 0.677	0.249 0.346							
1.5	25	2.138 49.93	1.174 11.91	0.730 3.834	0.415 1.004	0.312 0.510							
1.8	30	2.565 69.34	1.409 16.50	0.876 5.277	0.498 1.379	0.374 0.700	0.231 0.223						
2.1	35	2.993 91.54	1.644 21.75	1.022 6.949	0.581 1.811	0.436 0.914	0.269 0.291						
2.4	40		1.879 27.66	1.168 8.820	0.664 2.290	0.499 1.160	0.308 0.368						
3.0	50		2.349 41.40	1.460 13.14	0.830 3.403	0.623 1.719	0.385 0.544	0.229 0.159					
3.6	60		2.819 57.74	1.751 18.28	0.996 4.718	0.748 2.375	0.462 0.751	0.275 0.218					
4.2	70		3.288 76.49	2.043 24.18	1.162 6.231	0.873 3.132	0.539 0.988	0.321 0.287	0.231 0.131				
4.8	80			2.335 30.87	1.328 7.940	0.997 3.988	0.616 1.254	0.367 0.363	0.263 0.164				
5.4	90			2.627 38.30	1.494 9.828	1.122 4.927	0.693 1.551	0.413 0.449	0.269 0.203				
6.0	100			2.919 46.49	1.660 11.90	1.247 5.972	0.770 1.875	0.459 0.542	0.329 0.244	0.248 0.124			
7.5	125			3.649 70.41	2.075 17.93	1.558 8.967	0.962 2.802	0.574 0.809	0.412 0.365	0.310 0.185	0.241 0.101		
9.0	150				2.490 25.11	1.870 12.53	1.154 3.903	0.668 1.124	0.495 0.506	0.372 0.256	0.289 0.140		
10.5	175				2.904 33.32	2.182 16.66	1.347 5.179	0.803 1.488	0.576 0.670	0.434 0.338	0.337 0.184		
12	200				3.319 42.75	2.493 21.36	1.539 6.624	0.918 1.901	0.659 0.855	0.496 0.431	0.385 0.234	0.251 0.084	
15	250				4.149 64.86	3.117 32.32	1.924 10.03	1.147 2.860	0.823 1.282	0.620 0.646	0.481 0.350	0.314 0.126	
18	300					3.740 45.52	2.309 14.04	1.377 4.009	0.988 1.792	0.744 0.903	0.577 0.488	0.377 0.175	0.263 0.074
24	400					4.987 78.17	3.078 24.04	1.836 6.828	1.317 3.053	0.992 1.530	0.770 0.829	0.502 0.294	0.351 0.124
30	500						3.848 36.71	2.295 10.40	1.647 4.622	1.240 2.315	0.962 1.254	0.628 0.445	0.439 0.187
36	600						4.618 51.84	2.753 14.62	1.976 6.505	1.488 3.261	1.155 1.757	0.753 0.623	0.526 0.260
42	700							3.212 19.52	2.306 8.693	1.736 4.356	1.347 2.345	0.879 0.831	0.614 0.347
48	800							3.671 25.20	2.635 11.18	1.984 5.582	1.540 3.009	1.005 1.066	0.702 0.445
54	900							4.130 31.51	2.964 13.97	2.232 6.983	1.732 3.762	1.130 1.328	0.790 0.555
60	1000							4.589 38.43	3.294 17.06	2.480 8.521	1.925 4.595	1.256 1.646	0.877 0.674
75	1250								4.117 26.10	3.100 13.00	2.406 7.010	1.570 2.458	1.097 1.027
90	1500								4.941 36.97	3.720 18.42	2.887 9.892	1.883 3.468	1.316 1.444
105	1750									4.340 24.76	3.368 13.30	2.197 4.665	1.535 1.934
120	2000									4.960 31.94	3.850 17.16	2.511 5.995	1.754 2.496
150	2500										4.812 28.26	3.139 9.216	2.193 3.807
180	3000											3.767 13.05	2.632 5.417
240	4000											5.023 22.72	3.509 8.926
300	5000												4.386 14.42
90° bends, slide valves		1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	2.0	2.5
T pieces, non-return valves		4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	7.0	8.0	9.0

Friction Loss Tables

Friction loss table – Plastic pipes (PELM / PEH PN 10)

m³/h	l/min	PELM				PEH							
		25	32	40	50	63	75	90	110	125	140	160	180
		20.4	26.2	32.6	40.8	51.4	61.4	73.6	90.0	102.2	114.6	130.8	147.2
		Upper figures indicate the velocity of water in m/sec & Lower figures indicate friction loss in meters of head per 100 meters of straight pipes.											
0.6	10	0.49 1.80	0.30 0.66	0.19 0.27	0.12 0.085								
0.9	15	0.76 4.00	0.46 1.14	0.30 0.60	0.19 0.18	0.12 0.63							
1.2	20	1.00 6.40	0.61 2.20	0.39 0.90	0.25 0.28	0.16 0.11							
1.5	25	1.30 10.0	0.78 3.50	0.50 1.40	0.32 0.43	0.20 0.17	0.14 0.074						
1.8	30	1.53 13.0	0.93 4.60	0.60 1.90	0.38 0.57	0.24 0.22	0.17 0.092						
2.1	35	1.77 16.0	1.08 6.00	0.69 2.00	0.44 0.70	0.28 0.27	0.20 0.12						
2.4	40	2.05 22.0	1.24 7.50	0.80 3.30	0.51 0.93	0.32 0.35	0.23 0.16	0.16 0.063					
3.0	50	2.54 37.0	1.54 11.0	0.99 4.80	0.63 1.40	0.40 0.50	0.28 0.22	0.20 0.09					
3.6	60	3.06 43.0	1.85 15.0	1.20 6.50	0.76 1.90	0.48 0.70	0.34 0.32	0.24 0.13	0.16 0.050				
4.2	70	3.43 50.0	2.08 18.0	1.34 8.00	0.86 2.50	0.54 0.83	0.38 0.36	0.26 0.17	0.18 0.068				
4.8	80		2.47 25.0	1.59 10.5	1.02 3.00	0.64 1.20	0.45 0.50	0.31 0.22	0.20 0.084				
5.4	90		2.78 30.0	1.80 12.0	1.15 3.50	0.72 1.30	0.51 0.57	0.35 0.26	0.24 0.092	0.18 0.05			
6.0	100		3.10 39.0	2.00 16.0	1.28 4.60	0.80 1.80	0.56 0.73	0.39 0.30	0.26 0.12	0.20 0.07			
7.5	125		3.86 50.0	2.49 24.0	1.59 6.60	1.00 2.50	0.70 1.10	0.49 0.50	0.33 0.18	0.25 0.10	0.20 0.055		
9.0	150			3.00 33.0	1.91 8.60	1.20 3.50	0.84 1.40	0.59 0.63	0.39 0.24	0.30 0.13	0.24 0.075		
10.5	175			3.50 38.0	2.23 11.0	1.41 4.30	0.99 1.80	0.69 0.78	0.46 0.30	0.36 0.18	0.28 0.090		
12	200			3.99 50.0	2.55 14.0	1.60 5.50	1.12 2.40	0.78 1.00	0.52 0.40	0.41 0.22	0.32 0.12	0.25 0.065	
15	250				3.19 21.0	2.01 8.00	1.41 3.70	0.98 1.50	0.66 0.57	0.51 0.34	0.40 0.18	0.31 0.105	0.25 0.06
18	300				3.82 28.0	2.41 10.5	1.69 4.60	1.18 1.95	0.78 0.77	0.61 0.45	0.48 0.25	0.37 0.13	0.29 0.085
24	400					3.21 19.0	2.25 8.00	1.57 3.60	1.05 1.40	0.81 0.78	0.65 0.44	0.50 0.23	0.39 0.15
30	500					4.01 28.0	2.81 11.5	1.96 5.00	1.31 2.00	1.02 1.20	0.81 0.63	0.62 0.33	0.49 0.21
36	600					4.82 37.0	3.38 15.0	2.35 6.60	1.57 2.60	1.22 1.50	0.97 0.82	0.74 0.45	0.59 0.28
42	700					5.64 47.0	3.95 24.0	2.75 8.00	1.84 3.50	1.43 1.90	1.13 1.10	0.87 0.60	0.69 0.40
48	800						4.49 26.0	3.13 11.0	2.09 4.50	1.62 2.60	1.29 1.40	0.99 0.81	0.78 0.48
54	900						5.07 33.0	3.53 13.5	2.36 5.50	1.83 3.20	1.45 1.70	1.12 0.95	0.80 0.58
60	1000						5.64 40.0	3.93 16.0	2.63 6.70	2.04 3.90	1.62 2.20	1.24 1.20	0.96 0.75
75	1250							4.89 25.0	3.27 9.00	2.54 5.00	2.02 3.00	1.55 1.60	1.22 0.95
90	1500							5.88 33.0	3.93 13.0	3.05 8.00	2.42 4.10	1.86 2.30	1.47 1.40
105	1750							6.86 44.0	4.59 17.5	3.56 9.70	2.83 5.70	2.17 3.20	1.72 1.90
120	2000								5.23 23.0	4.06 13.0	3.23 7.00	2.48 4.00	1.96 2.40
150	2500								6.55 34.0	5.08 18.0	4.04 10.5	3.10 6.00	2.45 3.50
180	3000								7.86 45.0	6.10 27.0	4.85 14.0	3.72 7.60	2.94 4.40
240	4000									8.13 43.0	6.47 24.0	4.96 13.0	3.92 7.50
300	5000										8.08 33.0	6.2 18.0	4.89 11.0

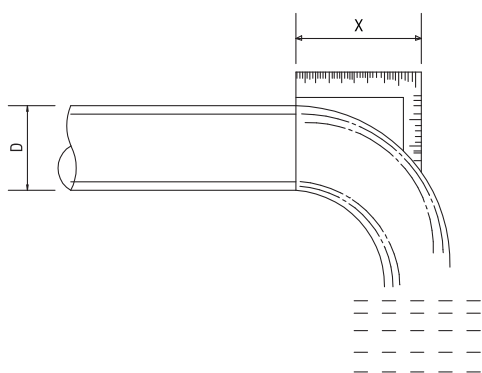
The table is based on a nomogram.

Roughness : K = 0.01 mm

Water temperature : t = 10°C

Discharge rate table

Horizontal distance "X" in inches	Nominal Pipe Outer Diameter "D"								
	1"	1.25"	1.5"	2"	2.5"	3"	4"	5"	6"
	Discharge rate (Q) (l / min)								
4	26	44	60	100	141	222	377	590	863
5	32	55	75	127	177	277	472	749	1090
6	39	67	91	150	213	331	567	885	1294
7	45	78	105	177	250	386	663	1044	1521
8	51	89	120	200	281	445	754	1180	1725
9	58	100	135	227	318	499	849	1339	1952
10	64	111	151	250	354	554	944	1475	2156
11	71	118	166	277	390	608	1040	1634	2383
12	77	132	177	300	427	667	1135	1771	2588
13	84	143	195	327	459	722	1226	1930	2815
14	91	154	211	350	495	776	1321	2043	3019
15	97	165	225	377	531	831	1416	2225	3223
16	103	177	240	400	567	890	1512	2361	3450
17	109	188	256	427	604	944	1603	2520	3677
18	116	198	271	449	636	999	1698	2679	3882
19	123	210	286	477	672	1053	1793	2815	4109
20	129	221	301	504	708	1108	1889	2951	4313
21	135	232	316	527	745	1162	1984	3110	4540
22	142	243	331	554	781	1221	2075	3269	4767
23	148	254	345	577	813	1276	2170	3405	4971
24	155	265	360	604	849	1330	2265	3541	5175
25	161	276	375	627	885	1389	2361	3700	5402
26	167	287	390	654	922	1444	2456	3836	5607
27	174	298	405	676	958	1498	2547	3995	5834
28	181	309	421	704	990	1553	2642		
29	187	320	436	726	1026	1607	2738		
30	193	331	451	754	1062	1666	2833		
31			468	776	1099	1721			
32			481	804	1135	1775			
33			495	826	1167	1830			
34			513	854	1203	1884			
35			527	881	1239	1943			
36			540	903	1276	1998			



Note : **X** - Horizontal Distance in inches
D - Nominal Pipe diameter in inches
Q - Discharge in l / min

CONVERSION CHART

FLOW RATE

litre per second l/s	litre per minute l/min	cubic meter per hour m ³ /h	cubic foot per hour ft ³ /h	cubic foot per minute ft ³ /min	Imp.gallon per minute Imp.gal/min	US gallon per minute Us gal/min	US barrel per day ls barrel/d (Petroleum)
1	60	3.6	127.133	2.1189	13.2	15.85	543.439
0.017	1	0.06	2.1189	0.0353	0.22	0.264	9.057
0.278	16.667	1	35.3147	0.5886	3.666	4.403	150.955
0.008	0.472	0.0283	1	0.0167	0.104	0.125	4.275
0.472	28.317	1.6990	60	1	6.229	7.480	256.475
0.076	4.546	0.2728	9.6326	0.1605	1	1.201	41.175
0.063	3.785	0.2271	8.0209	0.1337	0.833	1	34.286
0.002	0.110	0.0066	0.2339	0.0039	0.024	0.029	1

LIQUID

Cubic meter m ³	litre l	Milli litre ml	Imp. gallon Imp. Gal	US gallon US gal	cubic foot ft ³
1	1000	1 x 10 ⁶	220	264.2	35.3147
0.001	1	1000	0.22	0.2642	0.0353
1 x 10 ⁻⁶	0.001	1	2.2 X 10 ⁻⁴	2.642 x 10 ⁻⁴	3.53 x 10 ⁻⁶
0.00455	4.546	4546	1	1.201	0.1605
0.00378	3.785	3785	0.8327	1	0.1337
0.0283	28.317	28317	6.2288	7.4805	1

LIQUID HEAD AND PRESSURE

newton per square meter N/m ² (Pa)	kilo pascal kPa	bar bar	kilogram force per square centimeter Kgf/cm ²	pound force per square inch psi	foot for water ft H ₂ O	meter of water m H ₂ O	millimeter of mercury mm Hg	inch of mercury in Hg
1	0.001	1 x 10 ⁻⁵	1.02 x 10 ⁻⁵	1.45 x 10 ⁻⁴	3.35 x 10 ⁻⁴	1.02 x 10 ⁻⁴	0.0075	2.95 x 10 ⁻⁴
1000	1	0.01	0.0102	0.145	0.335	0.102	7.5	0.295
1 x 10 ⁻⁵	100	1	1.02	14.5	33.52	10.2	750.1	29.53
98.067	98.07	0.981	1	14.22	32.81	10	735.6	28.96
6895	6.895	0.069	0.0703	1	2.31	0.703	51.72	2.036
2984	2.984	0.03	0.0305	0.433	1	0.305	22.42	0.882
9789	9.789	0.098	0.1	1.42	3.28	1	73.42	2.891
133.3	0.133	0.0013	0.0014	0.019	0.045	0.014	1	0.039
3386	3.386	0.0338	0.0345	0.491	1.133	0.0345	25.4	1

LENGTH

millimeter mm	centimeter cm	meter m	inch in	foot ft	yard yd
1	0.1	0.001	0.0394	0.0033	0.0011
10	1	0.01	0.3937	0.0328	0.0109
1000	100	1	39.3701	3.2808	1.0936
25.4	2.54	0.0254	1	0.0833	0.0278
304.8	30.48	0.3048	12	1	0.3333
914.4	91.44	0.9144	36	3	1

1 Kilometer = 1000 metres = 0.62137 miles 1 mile = 1609.37 metres == 1.60934 kilometers

MASS

kilogram kg	pound lb	hundred weight (cwt)	tonne t	ton long tn	short ton sh tn
1	2.205	0.0197	0.001	9.84 x 10 ⁻⁴	0.0011
0.454	1	0.0089	4.54 x 10 ⁻⁴	4.46 x 10 ⁻⁴	5.0 x 10 ⁻⁴
50.802	112	1	0.0508	0.05	0.056
1000	2204.6	19.684	1	0.9842	1.1023
1016	2240	20	1.0161	1	1.102
907.2	2000	17.857	0.9072	0.8929	1

TEMPERATURE

To Convert From	To	Use Formula
Temperature Celsius, tc	Temperature Kelvin, tk	K = tc + 273.15
Temperature Fahrenheit, tf	Temperature Kelvin, tk	K = (tf + 459.67 / 1.8)
Temperature Celsius, tc	Temperature Fahrenheit, tf	F = 1.8 tc + 32
Temperature Fahrenheit, tf	Temperature Celsius, tc	C = (tf - 32) / 1.8
Temperature Kelvin, tk	Temperature Celsius, tc	C = tk - 273.15
Temperature Kelvin, tk	Temperature Fahrenheit, tf	F = 1.8tk - 459.67

BUREAU VERITAS
Certification



SHARP PUMPS PRIVATE LIMITED

Point[®]

S.F 330/2B, SITRA ROAD, KALAPPATTI
COIMBATORE – 641048, TAMIL NADU, INDIA.

Bureau Veritas Certification certify that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standard detailed below

Standard

ISO 9001:2008

Scope of certification

DESIGN, DEVELOPMENT, MANUFACTURING, MARKETING AND SERVICING OF:

- REGENERATIVE PUMPS.
- SINGLE & MULTISTAGE CENTRIFUGAL MONOBLOC PUMPS.
- SINGLE & MULTISTAGE JET PUMPS.
- BOREWELL SUBMERSIBLE PUMPS.
- OPEN WELL SUBMERSIBLE PUMPS.
- HORIZONTAL AND VERTICAL MULTISTAGE PUMPS.
- SEWAGE PUMPS.

Certification cycle start date: **03 February 2014**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **02 February 2017**

Original certification date: **16 October 1998**

Certificate No. **IND14.5063U/Q** Version : **1** Revision date: **01 February 2014**

Certification Authority
RAMESH KOREGAVE
General Manager



008

Certification body
address:

Brandon House, 180 Borough High Street, London SE1 1LB,
United Kingdom.

Local office:

"Marwah Centre" 6th Floor, Krishanlal Marwah Marg,
Opp. Ansa Industrial Estate, Off Saki Vihar Road,
Andheri (East), Mumbai – 400 072, India.

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
To check this certificate validity please call +91 22 6695 6300.



NOTES

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NOTES

[illegible]



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