

HIGH QUALITY PRODUCT



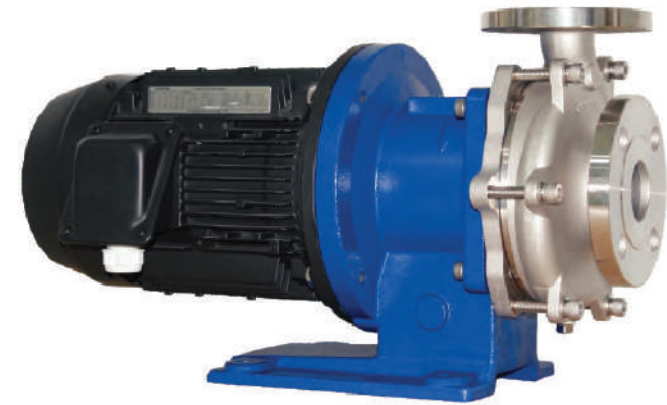
AQUASYSTEM



SMP series

Stainless steel Seal-less magnetic drive pump

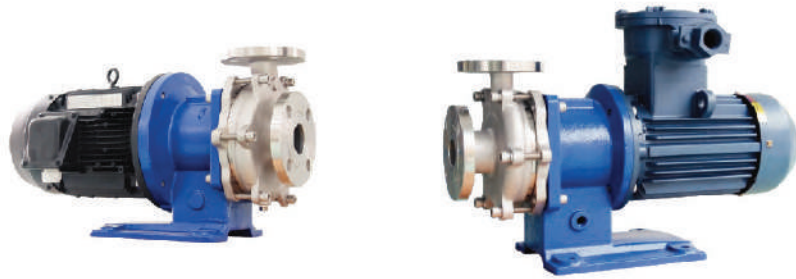
Precision casting
High efficiency and durable



■ Features of Stainless steel Magnet pump

1. No mechanical seal and no-leak, reliable and safe
2. Simple and compact design, easy maintenance
3. High temperature resistance up to 280 degrees (celsius)
4. Low temperature resistance down to -80 degree (celsius)
5. Stainless steel 304/316 pump body
6. Particle size 500µm, doesn't stick, 5% content allowed.
7. Particle size 100µm, doesn't stick, 8% content allowed.

■ SMP Series Mid-Size pump



■ Typical applications

Citric acid	Chlorosulfonic acid	Isopropyl alcohol	NaOH
Acetic acid	Acetaldehyde	Styrene	Mal EIC Acid
Aceton	Glycol	Vinyl chloride	H ₂ SO ₄
Acrylonitrile	Ethylene	Methacrylates	Methanol
Acrylic acid	Ammonium hydroxide	TDI	Toluene
Ethylene oxide	Benzene	Ethanol	Vinyl Acetate
Amyl acetate	Phenol	Chloroform	MDI
Anhydrous ammonia	Heat transfer fluid	Phosphoric acid	Do Monomer
Fluorinert (3M)	Hexane	Cyclohexane	Hot-water
Butadiene	Phosgene	Sodium carbonate	Xylene
Hydrofluoric acid	Pure water	Sodium chlorate	Water

■ Model Identification

SMP 421 — K 5 F 022 B 2
 [1] [2] [3] [4] [5] [6] [7] [8]

[1]SMP: Standard type, SMP-H: High temp type, SMP-L: Low temp type

[2]Model and size

[3]Wetted parts material; K: SS316, S:SS304, L: SS904L

[4]HZ of motor; 5: 50Hz, 6: 60Hz

[5]Connecting type; F: Flange, T: Thread (BSP/NPT)

[6]Motor power; 001: 90W, 002: 200W, 004:400W

007:750W, 011:1.1KW, 015:1.5KW

022: 2.2KW, 030: 3.0KW, 040: 4KW

055: 5.5KW, 075: 7.5KW, 110: 11KW

150: 15KW, 185: 18.5KW

[7]Motor type; S: IP55 standard motor, B: EXP motor

V: Variable frequency motor

[8]Motor s Pole: 2: 2-Poles, 4: 4-Poles

■ Performance data

Pump type	SMP	
	50HZ	60HZ
Max.Head (m)	61	88
Max. Capacity (L/min)	1345	1328
Temperature range	-80°C ~ 280°C	
Max.S.G	2	
Max. Viscosity (cps)	330cps	
Design Pressure (Mpa)	1.0	
Flange type	ANSI/DIN/JIS	
Impeller type	Closed	
Motor type	Standard/EX motor	

■ SMP-H High temp type

- 1.Motor bracket with heat dissipation design
- 2.Use Rare earth SmCo magnet
- 3.Use Anti-High temperature graphite gasket

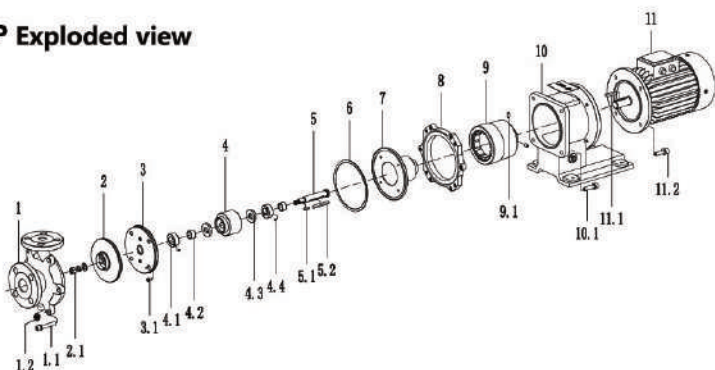


■ SMP-L Low temp type

- 1.Motor bracket with Nitrogen fill design, Prevent moisture from freezing.
- 2.Use Rare earth Neodymium magnet
- 3.Use Anti-low temperature graphite gasket

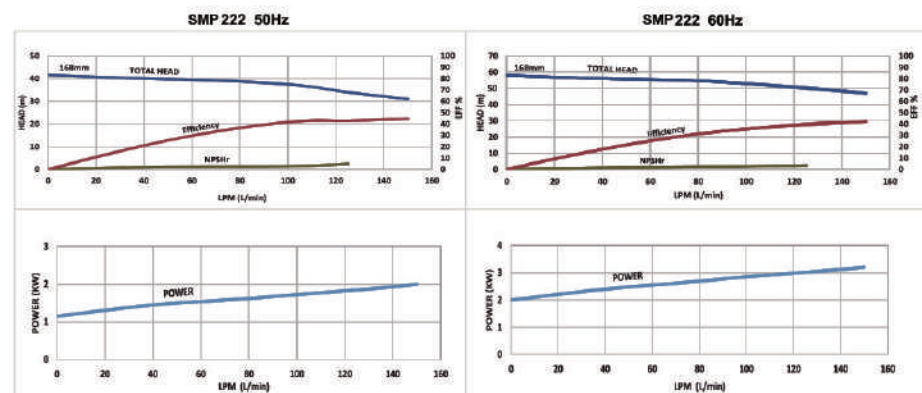
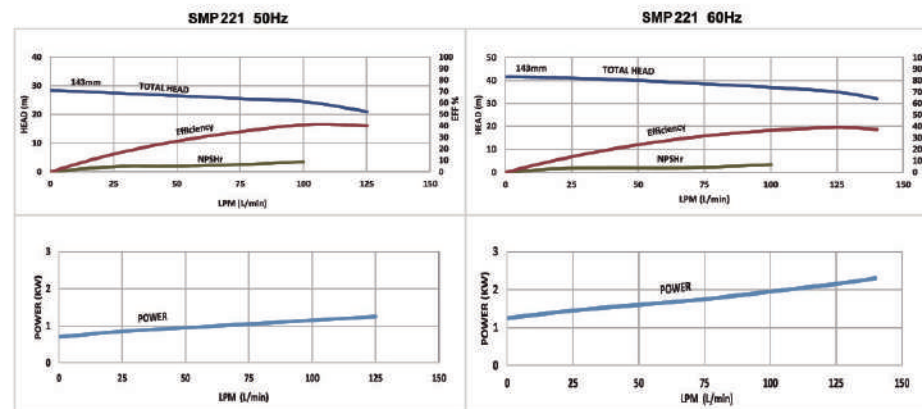
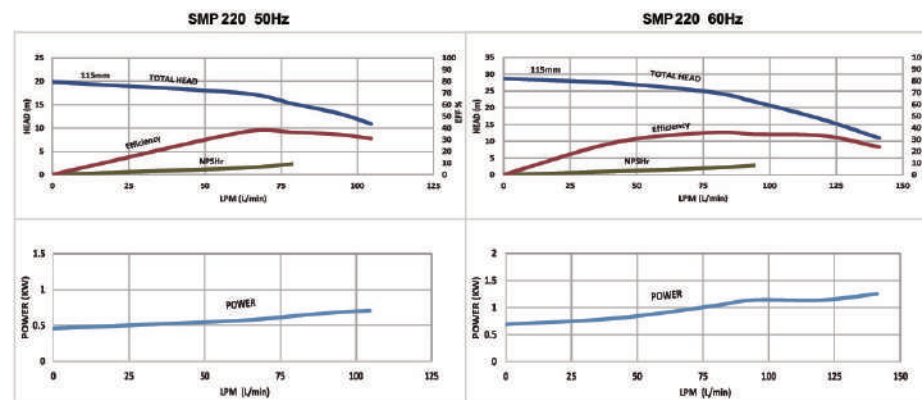
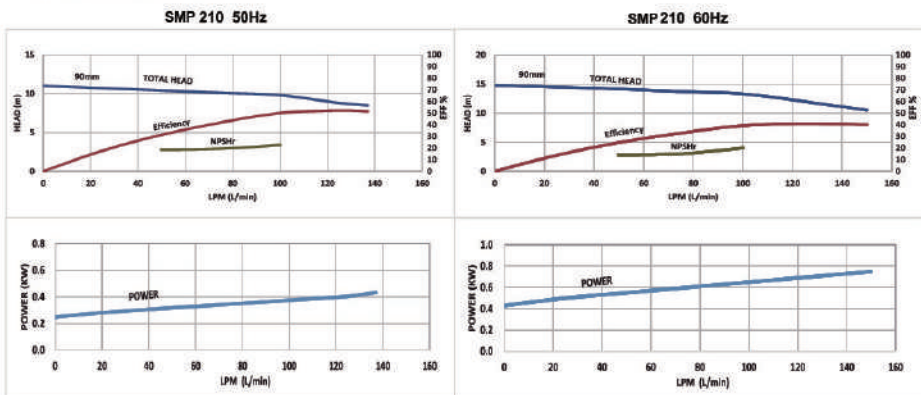


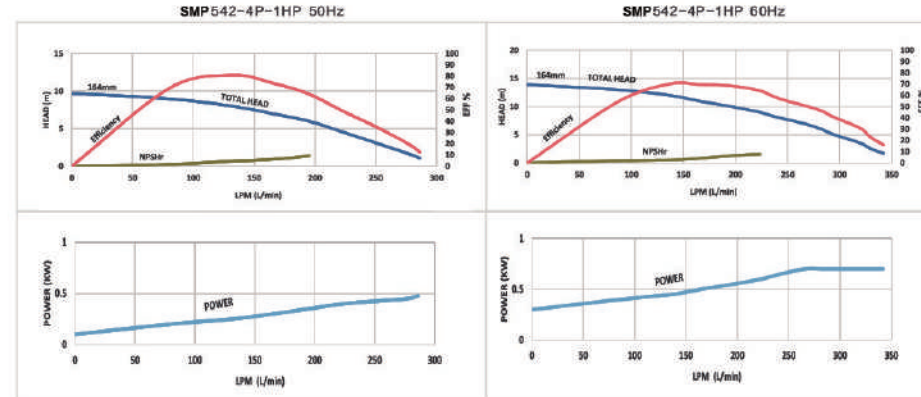
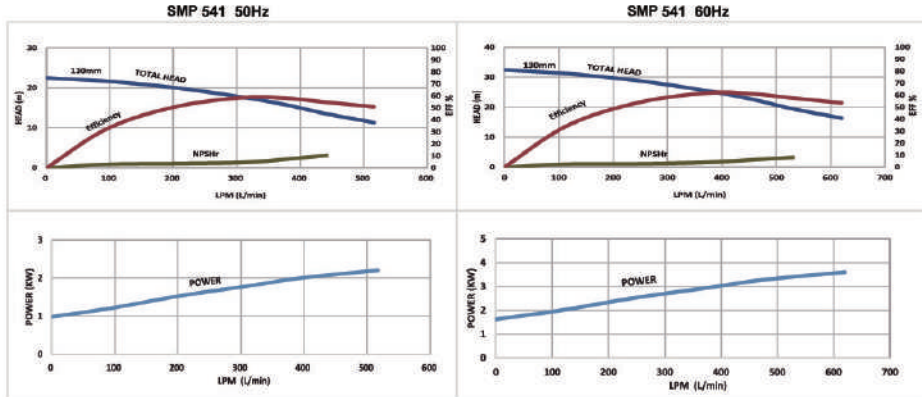
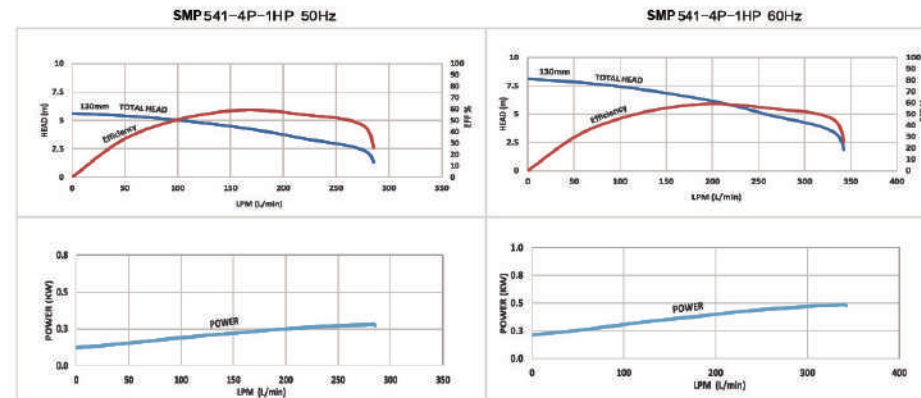
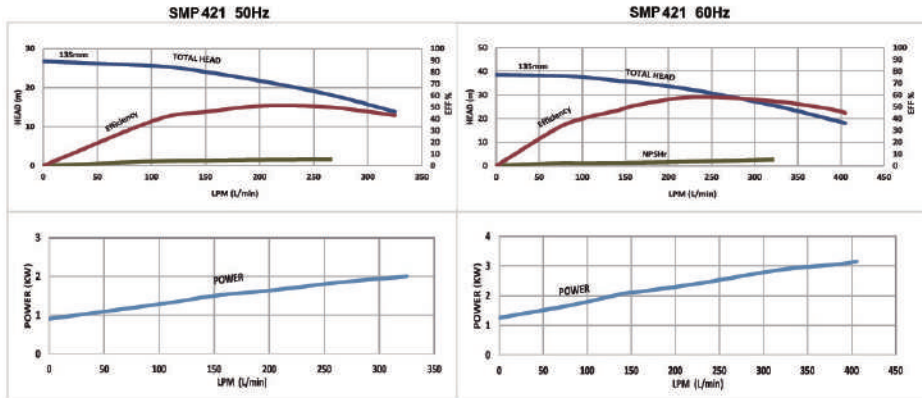
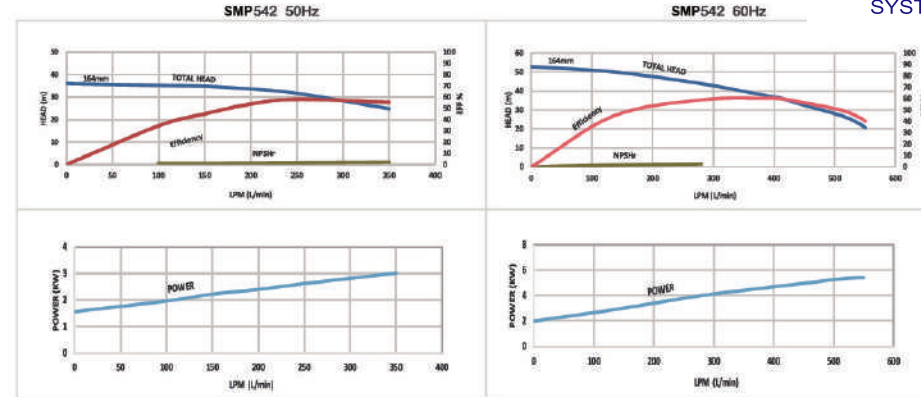
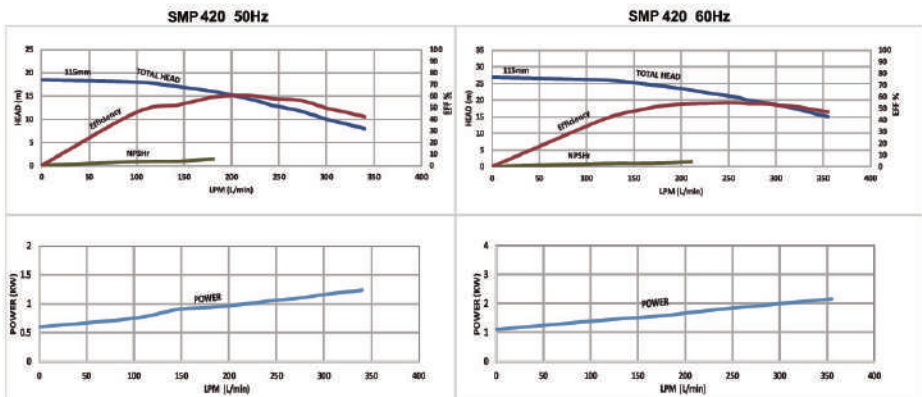
SMP Exploded view



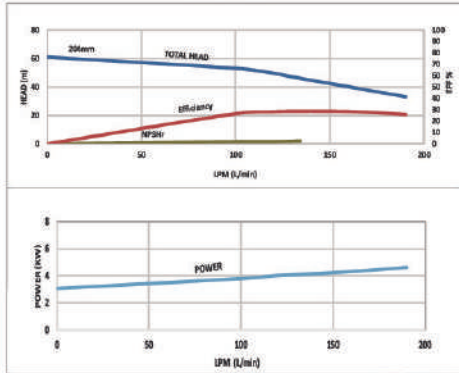
Code	Part name	Material	Qty	Code	Part name	Material	Qty
1	Front casing	SUS316/SCS14	1	5.1	Fixed key (Impeller)	SUS316	1
1.1	Casing locking bolt	SUS304	6	5.2	Fixed key (Magnet capsule)	SUS316	1
1.2	Drain plug	SUS316	1	6	Gasket	GMP:PTFE	1
2	Impeller	SUS316/SCS14	1			GMPH/L: Graphite	
2.1	Impeller locking nut	SUS316	3	7	Rear casing	SUS316	1
3	Casing cover	SUS316/SCS14	1	8	Frame	SUS304	1
3.1	Cover screw	SUS316	4	9	Drive magnet	FCD	1
4	Magnet capsule	SUS316	1	9.1	Locking screw	SUS304	2
4.1	Bushing	SSIC	2	10	Motor bracket	FC200	1
4.2	Sleeve	SSIC	2	10.1	Locking bolt	SUS304	4
4.3	Thrust ring	SSIC	2	11	Motor		1
4.4	Locking pin	SUS316	2	11.1	Fixed key (Motor shaft)	S45C	1
5	Shaft	SUS316	1	11.2	Motor bolt	SUS304	4

Performance curve

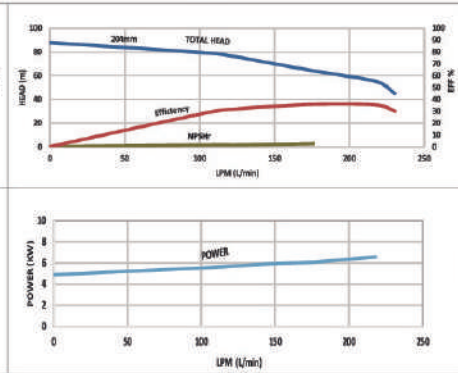




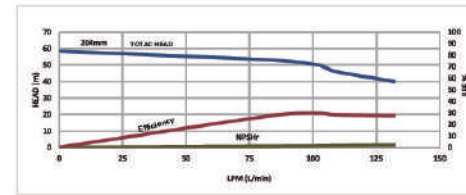
SMP423 50Hz



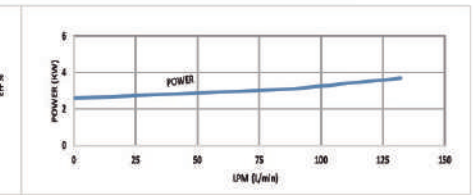
SMP423 60Hz



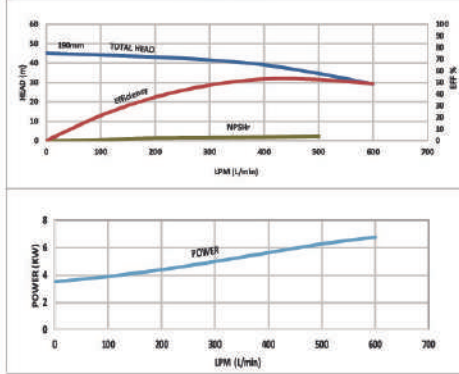
SMP424 50Hz



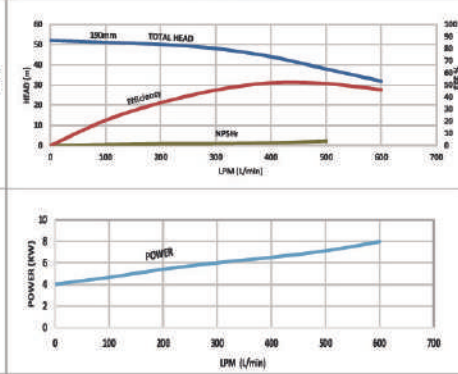
SMP424 60Hz



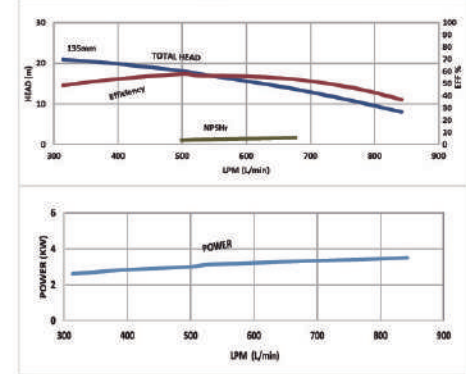
SMP543 50Hz



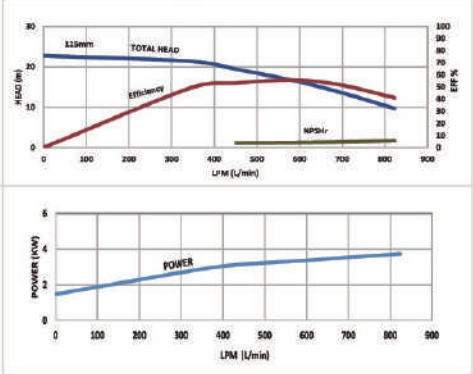
SMP543 60Hz



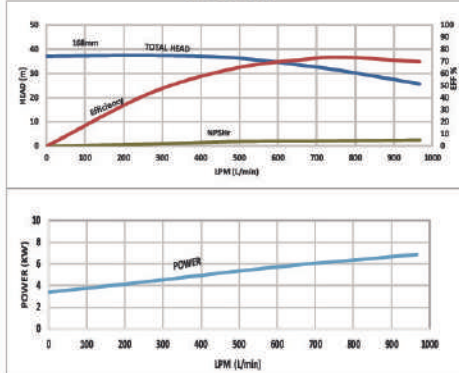
SMP843 50Hz



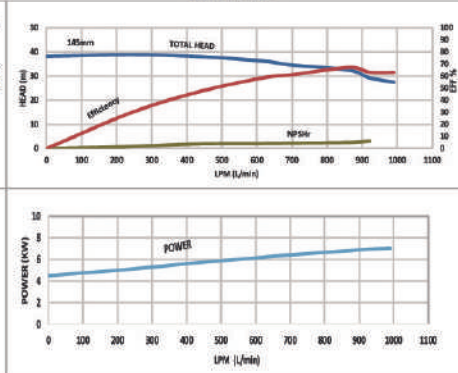
SMP843 60Hz



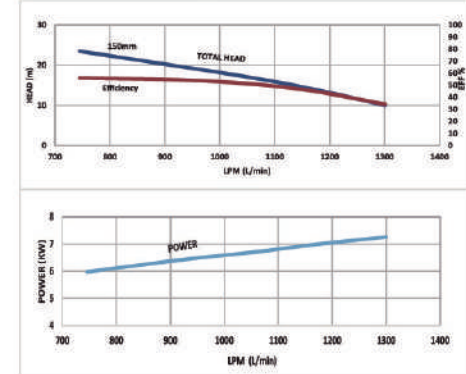
SMP842 50Hz



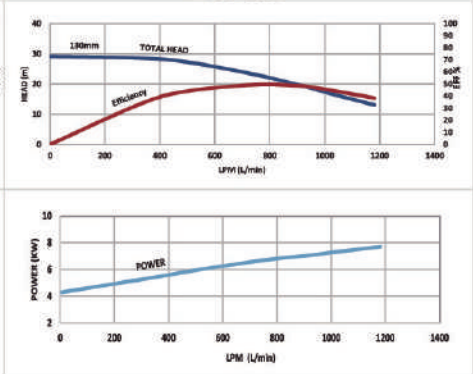
SMP842 60Hz



SMP852 50Hz



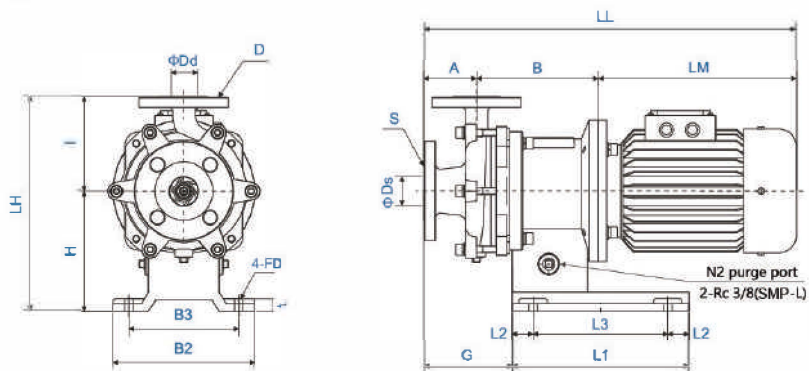
SMP852 60Hz





AQUA
SYSTEM

SMP Dimension



unit:mm

PUMP SIZE	MOTOR		SIZE		PUMP & MOTOR DIMENSION															WEIGHT APPROX (kg)		
	FRAME SIZE	OUT PUT (kw)	BUCT	DISCH	A	B	H	I	LH	LM	LL	G	L1	L2	L3	B2	B3	l	FD	PUMP	MOTOR	TOTAL
SMP-Q10	80M	0.75	25	20	75	170	110	105	215	233	478	125	180	30	120	180	130	12	Φ12	22	17	39
	SUL	1.5				22	24	46														
SMP-220-E	80M	0.75	25	20	60	170	110	120	230	253	463	110	180	30	120	180	130	20	Φ12	23	18	41
	80L	1.5				23	25	48														
SMP-220	80M	0.75	25	20	60	170	110	120	230	233	463	110	180	30	120	180	130	12	Φ12	23	17	40
	80L	1.5				23	24	47														
SMP-221	90L	1.5,2.2	25	20	65	175	170	130	300	275	806	110	250	30	190	200	160	16	Φ12	27	24	51
	{100L},112M	{2.2},3.7				30	46	78														
SMP-222	90L	1.5,2.2	25	20	65	175	170	140	310	275	806	110	250	30	190	200	160	16	Φ12	29	24	53
	{100L},112M	{2.2},3.7				33	46	79														
SMP-420	132S	5.5	40	25	75	245	212	352	400	710	125	300	90	250	250	200	180	18	Φ15	47	68	115
	80M	0.75				29	17	45														
SMP-421	90L	1.5,2.2	40	25	75	170	170	135	305	275	820	125	250	30	190	200	160	16	Φ12	28	24	53
	{100L},112M	{2.2},3.7				29	46	75														
SMP-422	90L	1.5,2.2	40	25	75	170	170	135	305	275	820	125	250	30	190	200	160	16	Φ12	28	24	54
	132S	5.5				34	46	80														
SMP-541	80L	2.2	50	40	80	170	170	140	310	275	825	130	250	30	190	200	160	16	Φ12	31	26	55
	{100L},112M	{2.2},3.7				35	46	81														
SMP-542	132S	5.5	50	40	80	230	212	352	400	730	145	350	50	250	250	200	180	18	Φ15	44	68	112
	80L	2.2				31	26	55														
SMP-642	{100L},112M	{2.2},3.7	30	40	65	185	170	150	320	275	806	110	250	30	190	200	160	16	Φ12	34	24	64
	132S	5.5				36	46	84														
SMP-643	132S	5.5,7.5	40	25	102	234	180	165	345	393	729	125	390	25	300	290	250	16	Φ15	63	68	131
SMP-644	132S	5.5,7.5	30	40	102	234	180	160	345	393	729	125	350	25	300	290	250	16	Φ15	65	68	133
SMP-645	132S	5.5,7.5	60	40	102	234	180	165	345	393	729	125	350	25	300	290	250	16	Φ15	67	68	135
SMP-646	112M	3.7	40	25	102	188	170	165	335	356	645	160	250	30	180	200	180	20	Φ12	43	46	89
SMP-647	112M	3.7	80	40	102	188	170	165	335	355	645	160	250	30	180	200	160	20	Φ12	51	46	97
SMP-652	132SM	7.5	80	50	102	238	180	210	390	400	741	130	350	25	300	290	250	16	Φ15	68	68	136

※ LM, LL dimensions and motor weight depending on motor used.
 ※ Figures in brackets are for SMP-H/SMP-L220

SMP-M Series small size pump



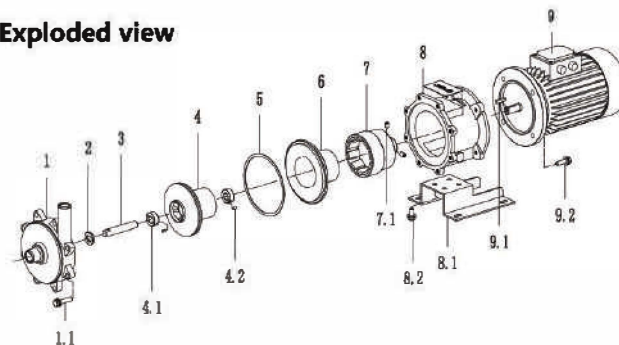
SMP-M Performance data

Pump type	SMP-M	
	50HZ	60HZ
Max.Head (m)	20	29
Max. Capacity (L/min)	99	123
Temperature range	-80°C ~ 280°C	
Max.S.G	2	
Max. Viscosity (cps)	120cps	
Design Pressure (Mpa)	0.6	
Thread type	BSP/NPT	
Impeller type	Closed	
Motor type	Standard/EX motor	

SMP-M Model

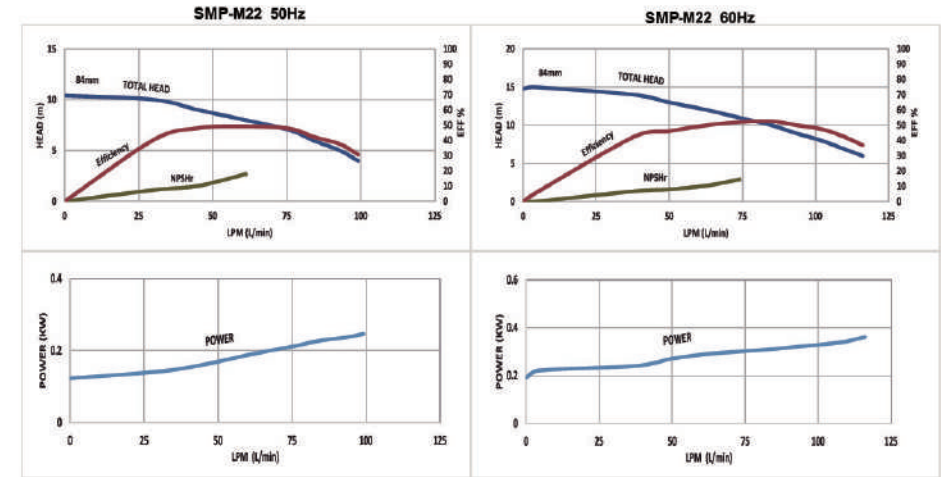
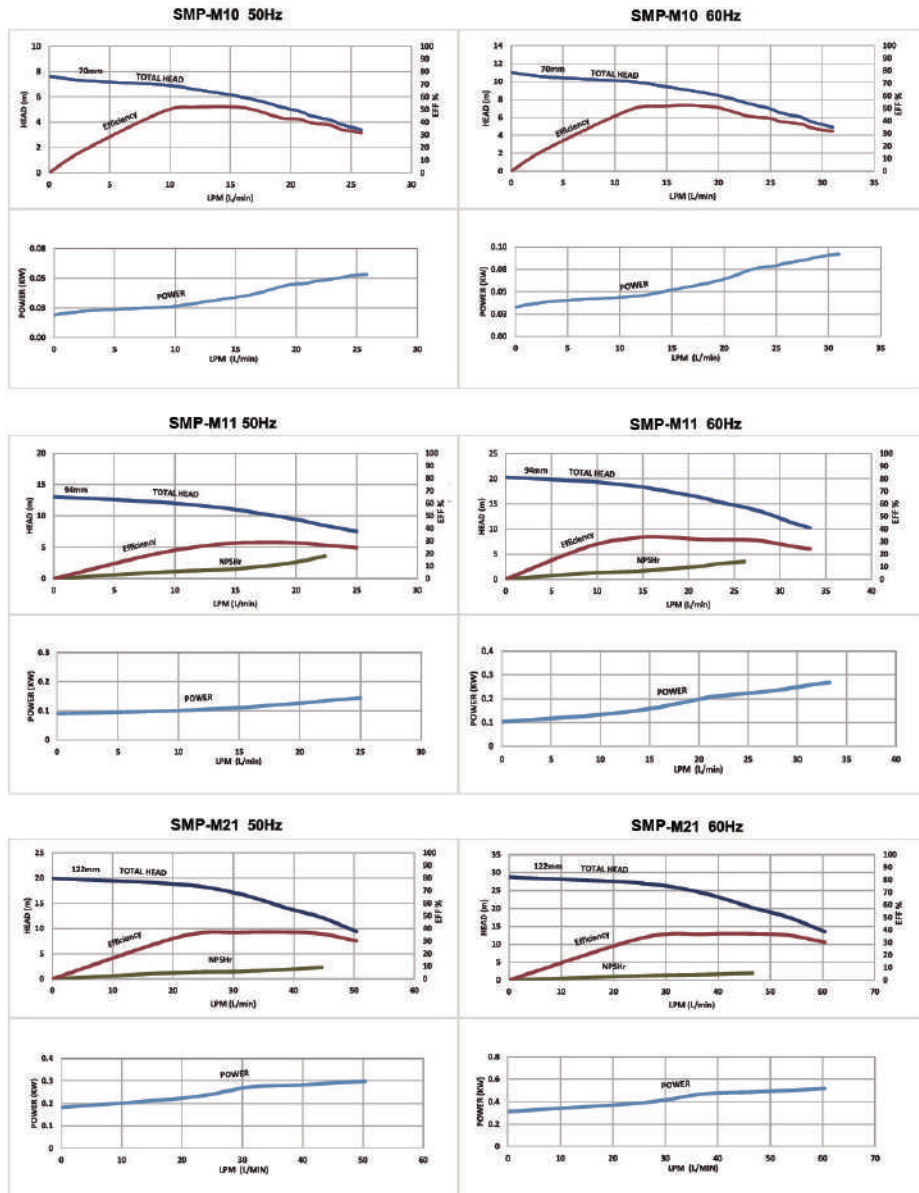
SMP-M	2	2
[1]	[2]	[3]
[1] Type		
[2] Suction x [3] Discharge		
SMP-M10:	15mm	15mm
SMP-M11:	15mm	15mm
SMP-M21:	20mm	20mm
SMP-M22:	25mm	20mm

SMP-M Exploded view

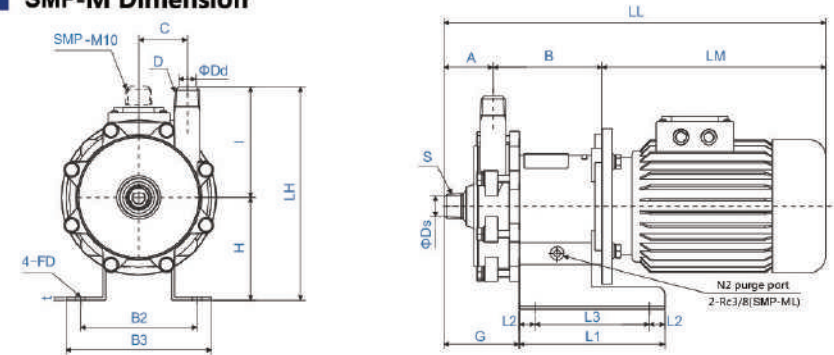


Code	Part name	Material	Qty	Code	Part name	Material	Qty
1	Front casing	SUS316/SCS14	1	6	Rear casing	SUS316	1
1.1	Casing locking bolt	SUS304	8	7	Drive magnet	FCD	1
2	Thrust ring	SSIC	1	7.1	Locking screw	SUS304	2
3	Shaft	SUS316/SCS14	1	8	Motor bracket	FC200	1
4	Impeller	SUS316/SCS14	1	8.1	Base plate	SUS304	1
4.1	Bushing	SSIC	2	8.2	Bolt (Base plate)	SUS304	4
4.2	Locking pin	SUS316/SCS14	2	9	Motor		1
5	Gasket	SMPM:PTFE	1	9.1	Fixed key (Motor shaft)	S45C	1
		SMPMH/L: Graphite		9.2	Motor bolt	SUS304	4

Performance curve



SMP-M Dimension



unit:mm

PUMP SIZE	MOTOR		SIZE		PUMP & MOTOR DIMENSION				BASE PLATE					WEIGHT APPROX (kg)											
			SUCT	DISCH					G	L1	I2	L3	B2	B3	t	FD	PUMP	MOTOR	TOTAL						
	FRAME SIZE	OUT PJT (W)	Ds	S	Dd	D	A	B	C	H	I	LH	LM	LL	G	L1	I2	L3	B2	B3	t	FD	PUMP	MOTOR	TOTAL
SMP-M10	---	90	15	PT1/2	13	PT1/2	45	118	0	65	70	135	120	283	60	90	15	60	110	95	6	φ9	6.8	3.2	10
		150	135	298	6.8	3.2	10																		
SMP-M11	63M 71M	200	15	PT1/2	15	PT1/2	45	104	45	100	100	200	209	358	86	150	16	118	150	120	3	φ9.5	8	10	18
		400	111	231	87	(70)	8	13	21																
SMP-M21	71M / 71S	400 / 550	20	PT3/4	20	PT3/4	50	112	50	100	120	220	231	393	77	150	16	118	150	120	3	φ9.5	11	13	24
SMP-M22	71M / 71S	400 / 550	25	PT1	20	PT3/4	60	113	45	100	100	200	231	404	103	150	16	118	150	120	3	φ9.5	10	13	23

※ LM, LL dimensions and motor weight depending on motor used.

※ Figures in brackets are for SMP-MH/ML 11,22.

Foundry of Pump body

1. Stainless steel pumpbody adopt precision casting, smooth and good appearance.
2. Pumpbody are tested with X-RAY nondestructive testing to ensure no sand hole.
3. Adopt CNC machining, high accuracy.

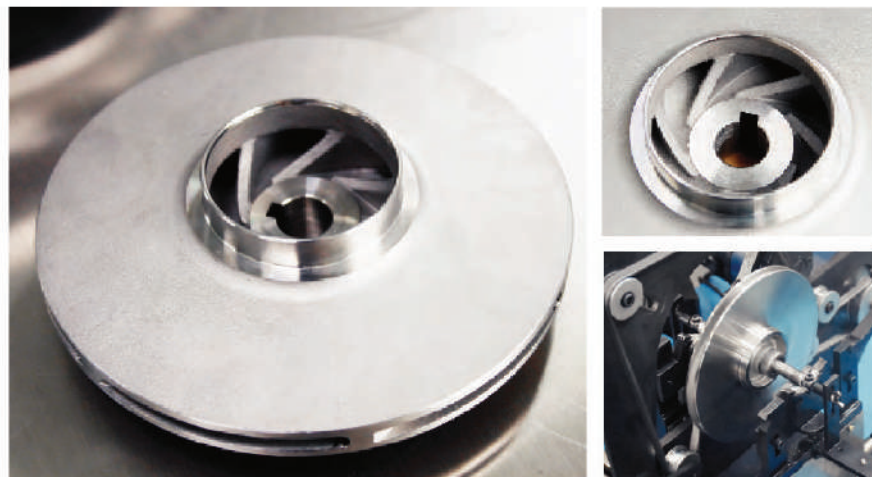


Parts And Machining



1. Casing cover, magnet capsule, shaft, rear casing etc all of stainless steel.
2. Adopt CNC machining, high accuracy, longer life time

Impeller quality control



1. Impeller adopt precision casting, smooth and good appearance.
2. Smooth flow channel, high hydraulic efficiency
3. CNC Machining and balance testing

