

Reliability is our target

**PAN WORLD
SEALLESS MAGNETIC
DRIVEN PUMP**

PW-F series(Sealless)
(Teflon ETFE Made)

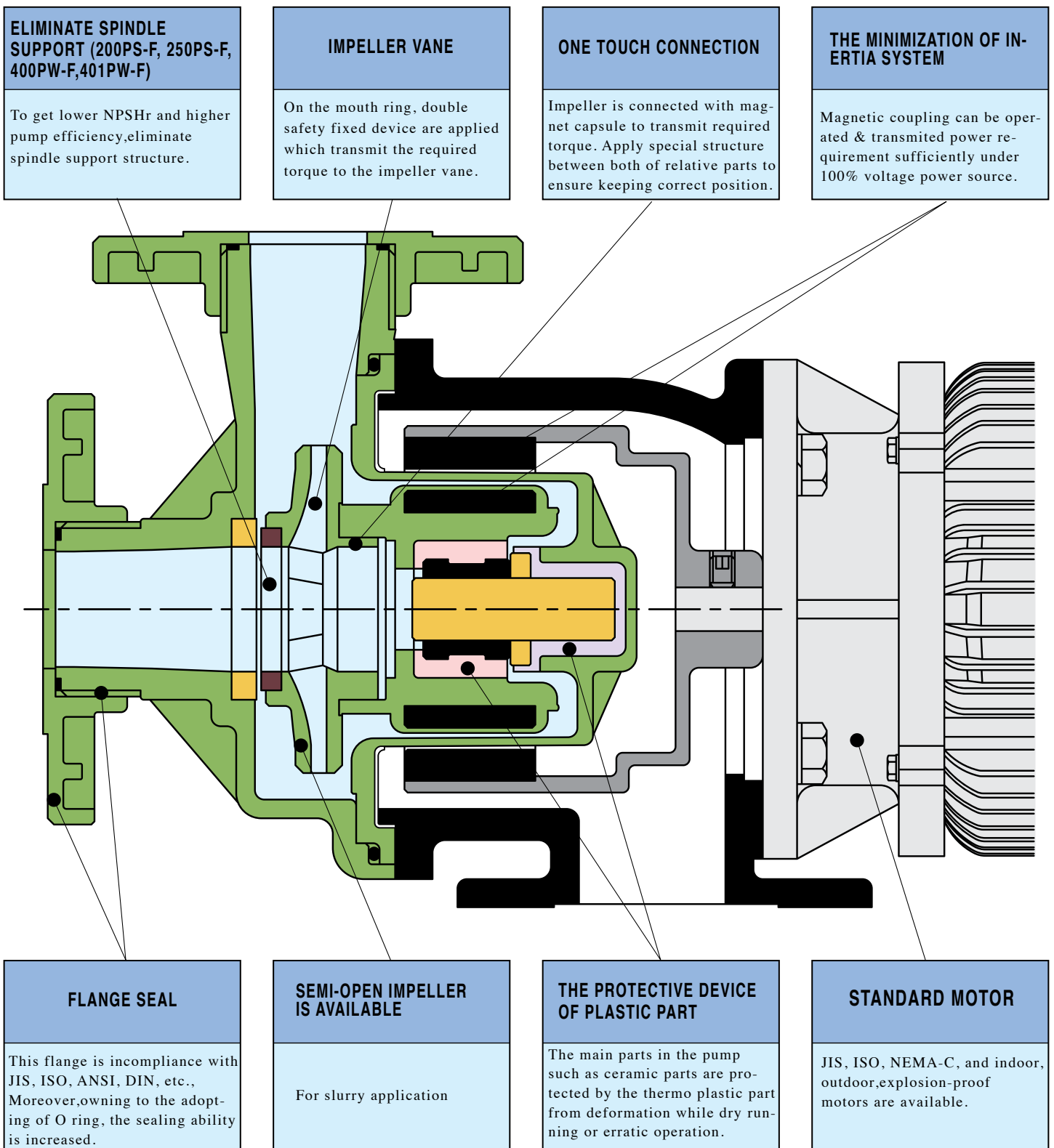


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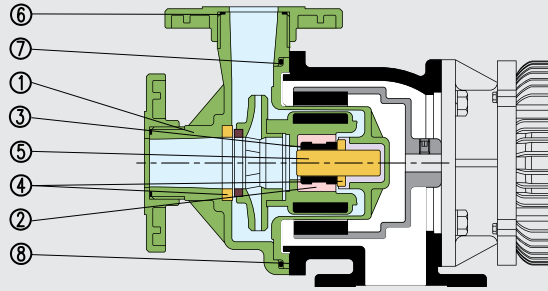
■ Features

- **Long operation life** : 20,000 Hours life expectancy of bearing.(PW-F series)
- **Zero leakage** : The pump is driven by a synchronous magnetic coupling which seals from fluid by O ring.
- **Easy maintenance** : The part are easy to replace without the use of special tool or jig.
- **Built in safety** : The bearing, thrust pad, spindle is united for one component by plastic.
- **Best choice of wetted end** : Many kind of combination among bearing, spindle thrust pad, O ring are standardized to meet required specification.
- **The chemical resistance is obviously increased**

■ The most advanced pump suitable for chemical purpose



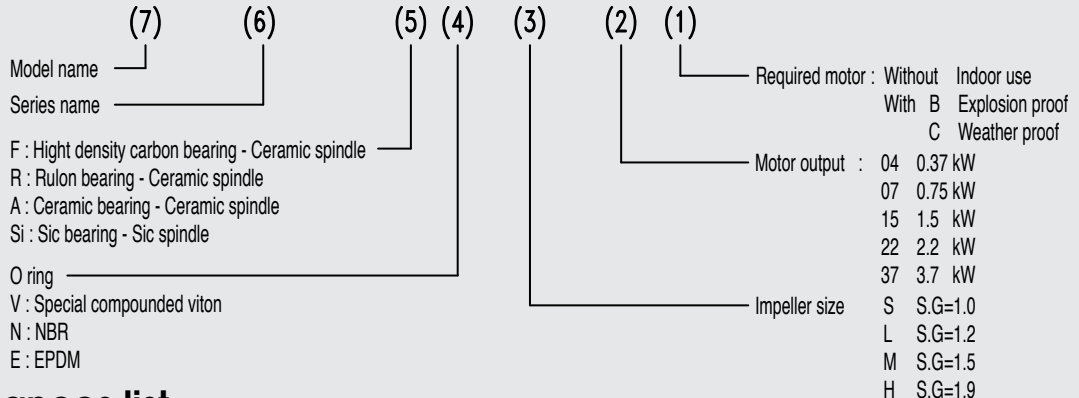
Parts list



Part name	PW-F Series				
	FV	RV	AV	FN	SI
1.Casing	ETFE				
2.Holder	ETFE				
3.Bearing	H.D. Carbon	Rulon	Ceramic	H.D. Carbon	Sic
4.Thrust pad	Ceramic				Sic
5.Spindle	Ceramic	Sic	Ceramic	Sic	
6.O ring	FKM		NBR	FKM	
7.O ring	FKM		NBR	FKM	
8.Bracket	Grey cast iron				

Type indication

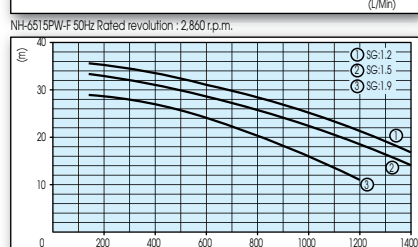
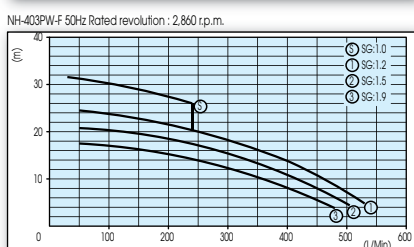
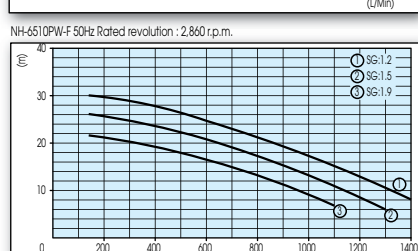
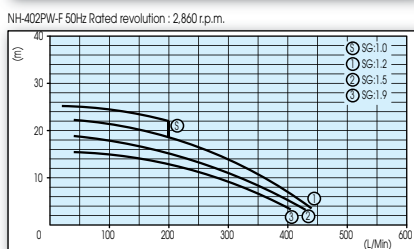
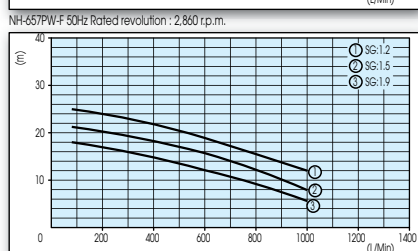
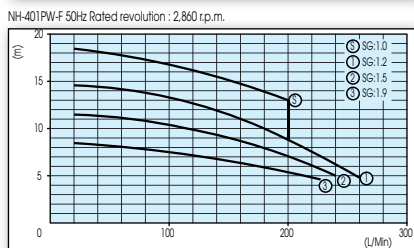
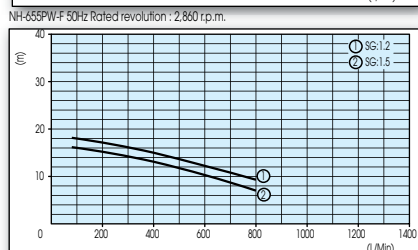
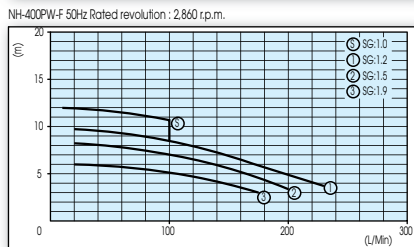
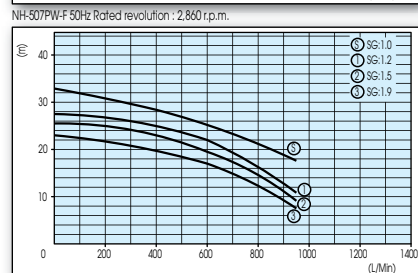
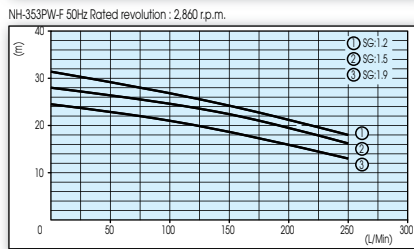
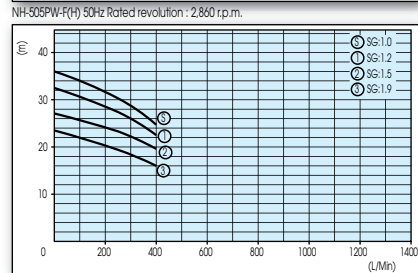
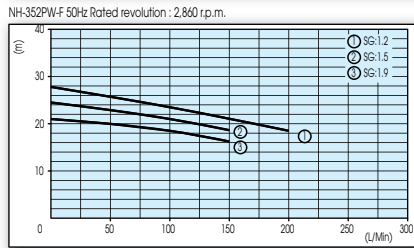
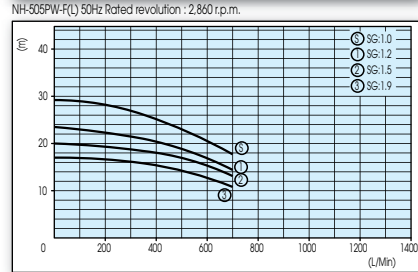
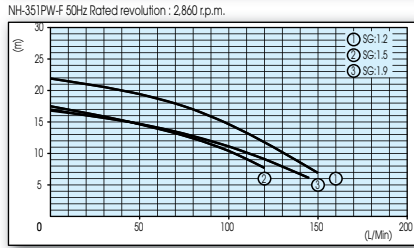
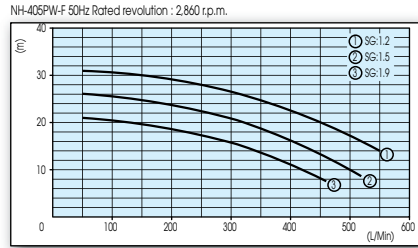
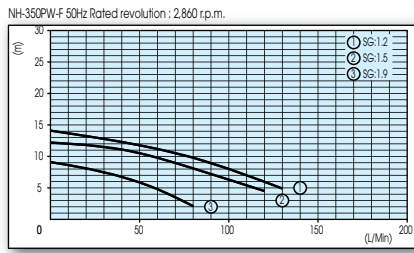
Ex. NH - 400PW - F - FV - L - 04C



Performances list

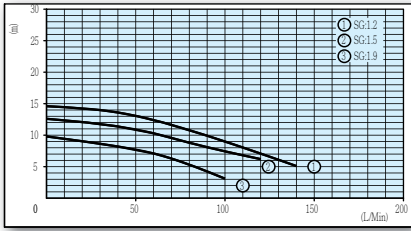
Model	Flange size		Pump performance at specified point (M at L/min)			Applicable Motor output(kW)	Net weight (Kg)	
	Outlet (mm)	Inlet(mm)	Specific Gravity	50HZ	60HZ			
NH-350PW-F	-L	25	25	① 1.2	10.0 - 80	11.0 - 80	0.37	16
	-M			② 1.5	11.0 - 40	11.0 - 50		
	-H			③ 1.9	6.0 - 50	7.0 - 60		
NH-351PW-F	-L	25	25	① 1.2	15.0 - 100	17.0 - 80	0.75	25
	-M			② 1.5	12.4 - 80	14.5 - 70		
	-H			③ 1.9	12.0 - 80	14.5 - 20		
NH-352PW-F	-L	32	32	① 1.2	23.0 - 100	27.0 - 100	1.5	38
	-M			② 1.5	21.0 - 100	25.0 - 100		
	-H			③ 1.9	18.0 - 100	21.0 - 100		
NH-353PW-F	-L	32	32	① 1.2	24.0 - 150	32.0 - 120	2.2	46
	-M			② 1.5	22.0 - 150	29.0 - 120		
	-H			③ 1.9	19.0 - 150	25.0 - 120		
NH-400PW-F	-S	40	40	⑤ 1.0	Max 13.3 - Max 100	Max 13.0 - Max 100	0.37	21
	-L			① 1.2	7.4 - 135	8.0 - 110		
	-M			② 1.5	6.5 - 135	5.2 - 135		
	-H			③ 1.9	4.7 - 120	3.9 - 120		
NH-401PW-F	-S	40	40	⑤ 1.0	Max 18.7 - Max 200	Max 18.4 - Max 200	0.75	30
	-L			① 1.2	10.0 - 180	9.5 - 180		
	-M			② 1.5	8.5 - 160	8.8 - 160		
	-H			③ 1.9	6.0 - 175	5.2 - 175		
NH-402PW-F	-S	40	50	⑤ 1.0	Max 25.1 - Max 200	Max 26.2 - Max 150	1.5	45
	-L			① 1.2	16.0 - 260	15.5 - 260		
	-M			② 1.5	13.0 - 240	13.5 - 240		
	-H			③ 1.9	10.0 - 280	7.9 - 280		
NH-403PW-F	-S	40	50	⑤ 1.0	Max 32.0 - Max 240	Max 31.2 - Max 200	2.2	53
	-L			① 1.2	17.0 - 330	15.0 - 330		
	-M			② 1.5	15.0 - 310	16.3 - 310		
	-H			③ 1.9	14.0 - 280	13.0 - 280		
NH-405PW-F	-L	40	50	① 1.2	24.5 - 390	20.5 - 390	3.7	64
	-M			② 1.5	20.5 - 310	20.3 - 350		
	-H			③ 1.9	15.2 - 220	19.3 - 290		
	-S			⑤ 1.0	22.0 - 500	24.0 - 500		
NH-505PW-F(L)	-L	50	65	① 1.2	21.0 - 500	20.0 - 500	3.7	72
	-M			② 1.5	16.0 - 500	16.0 - 500		
	-H			③ 1.9	13.0 - 500	11.0 - 500		
	-S			⑤ 1.0	26.5 - 350	29.0 - 350		
NH-505PW-F(H)	-L	50	65	① 1.2	24.3 - 350	25.0 - 350	3.7	72
	-M			② 1.5	20.0 - 350	19.7 - 350		
	-H			③ 1.9	20.0 - 350	17.0 - 350		
	-S			⑤ 1.0	24.0 - 600	29.0 - 600		
NH-507PW-F	-L	50	65	① 1.2	21.5 - 600	22.5 - 600	5.5	99
	-M			② 1.5	19.0 - 600	19.5 - 600		
	-H			③ 1.9	16.0 - 600	15.0 - 600		
	-S			⑤ 1.0	22.0 - 600	19.8 - 400		
NH-655PW-F	-L	65	80	① 1.2	11.0 - 540	---	3.7	110
	-M			② 1.5	---	---		
	-H			③ 1.9	---	---		
NH-657PW-F	-L	65	80	① 1.2	17.0 - 700	18.0 - 620	5.5	120
	-M			② 1.5	15.3 - 625	13.5 - 750		
	-H			③ 1.9	11.3 - 660	---		
NH-6510PW-F	-L	65	80	① 1.2	22.2 - 760	20.7 - 830	7.5	130
	-M			② 1.5	18.9 - 720	18.0 - 680		
	-H			③ 1.9	15.5 - 660	15.0 - 720		
NH-6515PW-F	-L	65	80	① 1.2	26.8 - 1080	24.0 - 1110	11	140
	-M			② 1.5	26.0 - 815	26.0 - 800		
	-H			③ 1.9	24.1 - 600	20.5 - 835		

Performance curve (for reference) 50Hz

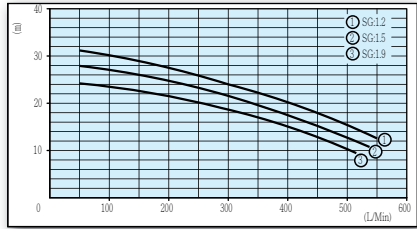


Performance curve (for reference) 60Hz

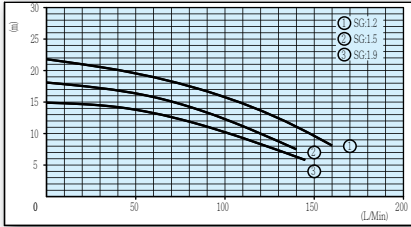
NH-350PW-F 60Hz Rated revolution : 3,440 r.p.m.



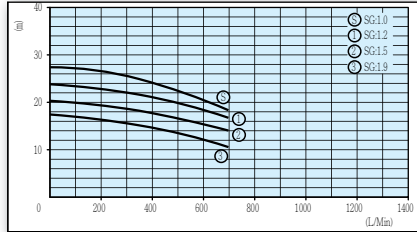
NH-405PW-F 60Hz Rated revolution : 3,440 r.p.m.



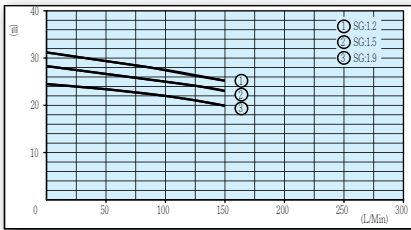
NH-351PW-F 60Hz Rated revolution : 3,440 r.p.m.



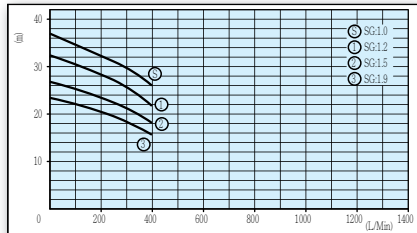
NH-505PW-PL 60Hz Rated revolution : 3,440 r.p.m.



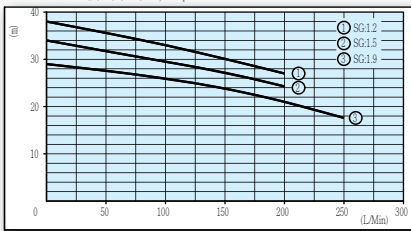
NH-352PW-F 60Hz Rated revolution : 3,440 r.p.m.



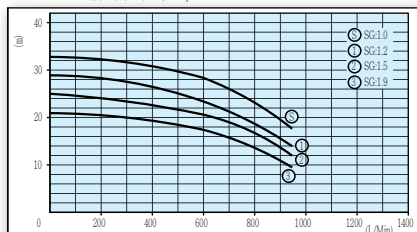
NH-505PW-P(H) 60Hz Rated revolution : 3,440 r.p.m.



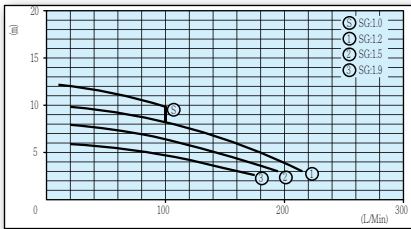
NH-353PW-F 60Hz Rated revolution : 3,440 r.p.m.



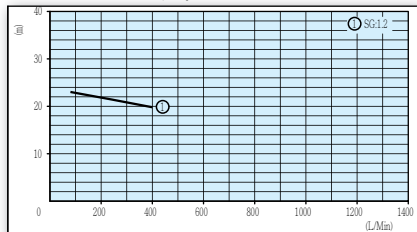
NH-507PW-F 60Hz Rated revolution : 3,440 r.p.m.



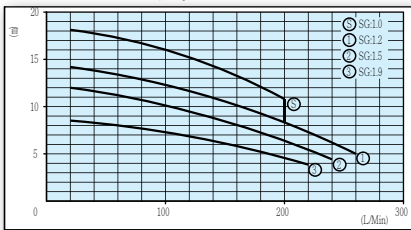
NH-400PW-F 60Hz Rated revolution : 3,440 r.p.m.



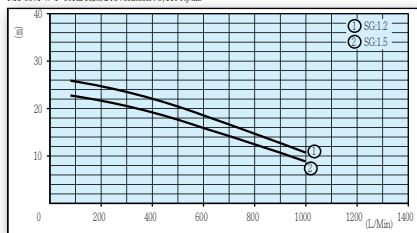
NH-655PW-F 60Hz Rated revolution : 3,440 r.p.m.



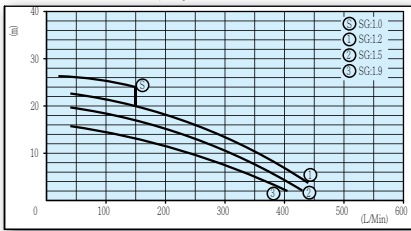
NH-401PW-F 60Hz Rated revolution : 3,440 r.p.m.



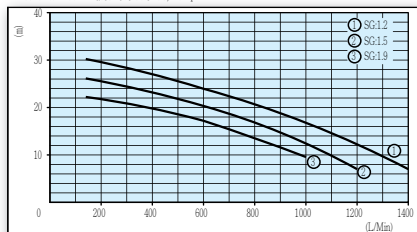
NH-657PW-F 60Hz Rated revolution : 3,440 r.p.m.



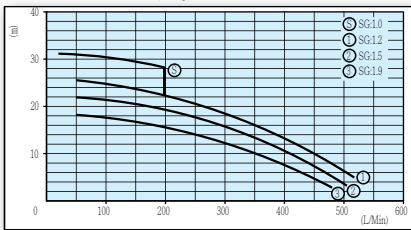
NH-402PW-F 60Hz Rated revolution : 3,440 r.p.m.



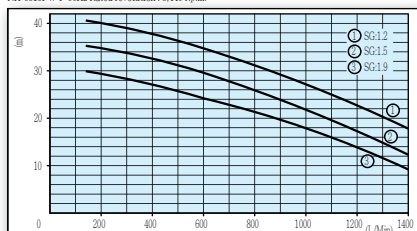
NH-6510PW-F 60Hz Rated revolution : 3,440 r.p.m.



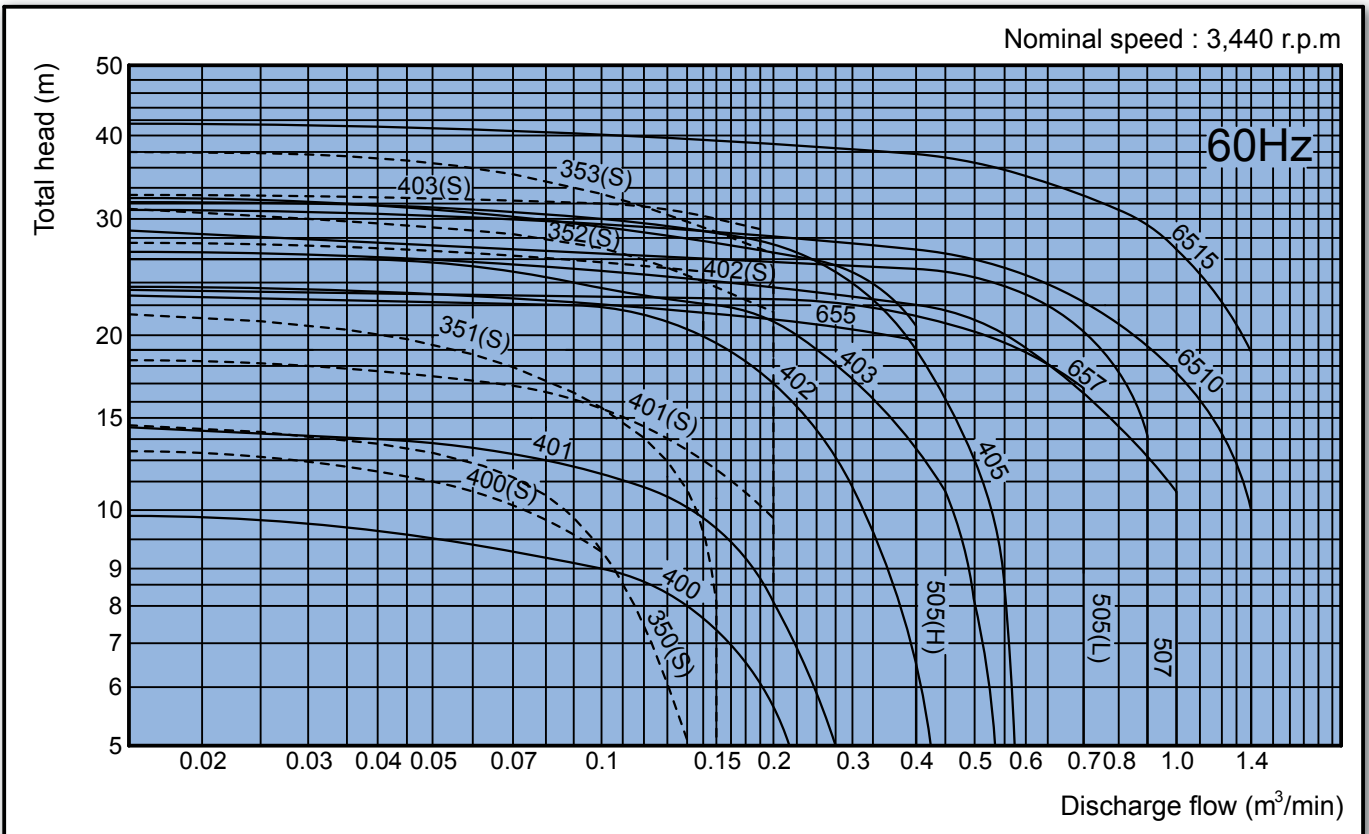
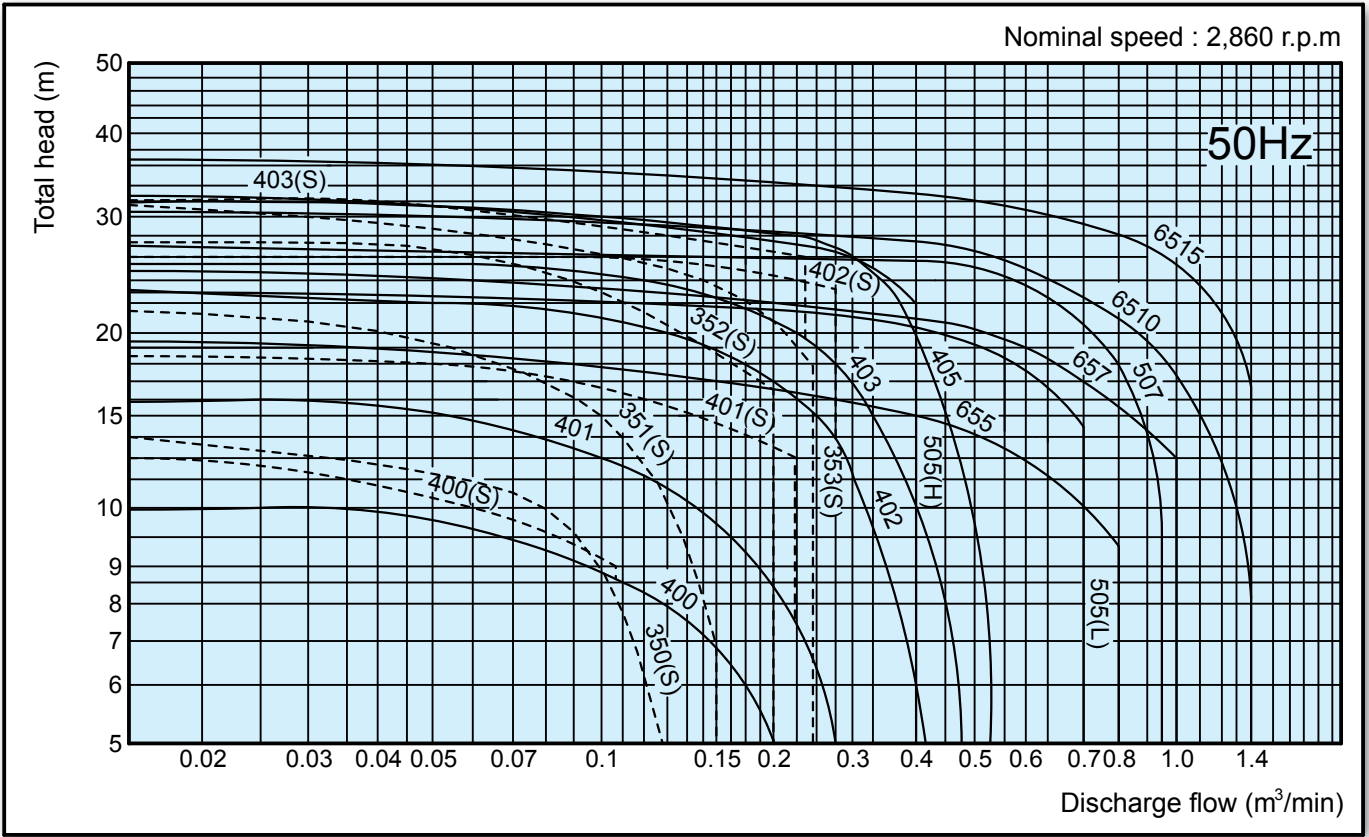
NH-403PW-F 60Hz Rated revolution : 3,440 r.p.m.



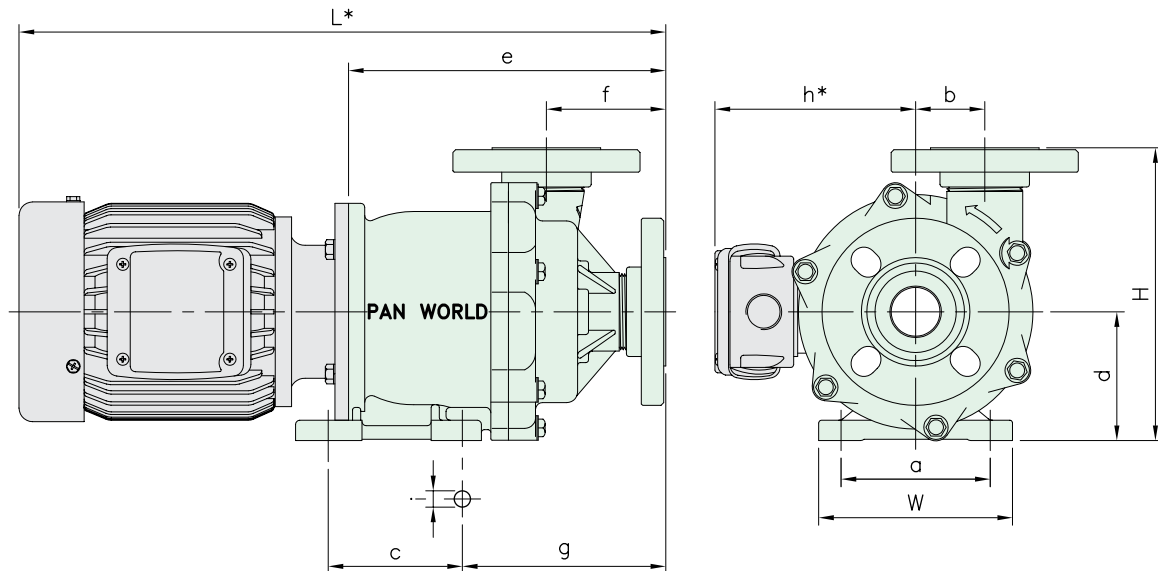
NH-6513PW-F 60Hz Rated revolution : 3,440 r.p.m.



PW-F series performance curve



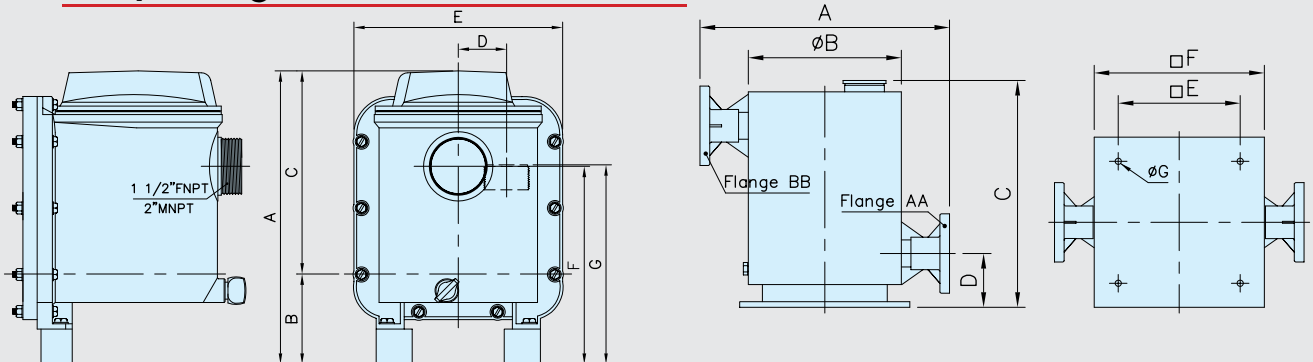
Installation dimension



Model	W	H	L*	a	b	c	d	e	f	g	h*	i
NH-350PW	157	257	472	130	77.5	130	115	232.5	88	161	138.5	12
NH-351PW	160	257	470	130	77.5	130	115	240	88	170	145	12
NH-352PW	160	242	505.5	130	57	132	120	222.5	78	155	149	12
NH-353PW	160	242	505.5	130	57	132	120	222.5	78	155	149	12
NH-400PW	140	216	473	110	51	98	95	233	87	150	151	12
NH-401PW	160	254	488	130	57.5	130	115	256	102.5	184	160	12
NH-402PW	260	255	620	208	65	200	115	305	89	158	176	14
NH-403PW	260	255	620	208	65	200	115	305	89	158	176	14
NH-405PW	260	270	689	208	65	200	130	326	89	158	208	14
NH-505PW	260	319	650.5	220	60	300	162	287.5	89.5	123.2	208	14
NH-507PW	260	319	676.5	220	60	300	162	311.5	89.5	123.2	252	14
NH-655PW	260	360	723	210	85	270	175	360	118	240	208	14
NH-657PW	260	360	745	210	85	270	175	380	118	240	252	14
NH-6510PW	260	360	745	210	85	270	175	380	118	240	252	14
NH-6515PW	350	385	918.5	300	85	270	200	408.5	118	240	285	14

- Remarks: 1. The size in above table is shown with JIS motor.
 2. Over all size & construction may be changed without notice.
 3. *Depending on type of motor used.

Self priming chamber(SP/PT Series)



Dimension

	A	B	C	D	E	F	G
SP-400	309	95	214	51	220	207	210
SP-401	329	115	214	57.5	220	227	250

NOTE:

- 1).Material: hard PVC.
- 2).Allowable self priming static head: 2m at S.G.1.0
- 3).Allowable overall duction pipe length: 3m.

Dimension

	A	B	C	D	E	F	G	AA	BB
PT-400	440	270	400	95	215	300	ø11	40A	40A
PT-401	440	270	470	115	215	300	ø11	40A	40A
PT-402	440	270	550	115	215	300	ø11	50A	50A

NOTE:

- 1).Material: hard PVC.
- 2).Allowable self priming static head 3m at S.G.1.0
- 3).Allowable overall duction pipe length 4m.

Chemical resistance table

LIQUID NAME	PW-F			
	(%)	20°C	60°C	70°C
Hydrochloric acid	10	○	○	○
	20	○	○	○
	38	○	○	○
Chromic acid	10	○	○	○
	25	○	○	○
Acetic acid	50	○	○	○
	100	○	○	○
Oxalic acid	30	○	○	○
	50	○	○	○
Nitric acid	10	○	○	○
	30	○	○	○
Hydrogen fluoride acid	40	○	○	○
Phosphoric acid	25	○	○	○
	50	○	○	○
	85	○	○	○
Sulphuric acid	30	○	○	○
	70	○	○	○
	98	○	○	○
Ammonia water	30	○	○	○
Sodium hydroxide	10	○	○	○
	20	○	○	○
	40	○	○	○
	50	○	○	○
Potassium hydroxide	50	○	○	○

LIQUID NAME	PW-F			
	(%)	20°C	60°C	90°C
Sulphate		○	○	○
Aluminum chloride		○	○	○
Ammonium chloride		○	○	○
Calcium chloride		○	○	○
Cuprous chloride		○	○	○
Freec chloride		○	○	○
Mercuric chloride	40	○	○	○
Sodium chloride		○	○	○
Potassium manganate	6	○	○	○
	20	○	○	○
Cupric cyanide		○	○	○
Sodium cyanide		○	○	○
Sodium nitride		○	○	○
Ammonium nitride		○	○	○
Common salt		○	○	○
Sec-chlorite	10	○	○	○
Potassium dichromate		○	○	○
Sodium carbonate		○	○	○
Ammonium carbonate		○	○	○
Nickle solution		○	○	○
Ammonium fluoride		○	○	○
Ferrous sulphate	--	○	○	○
Ethanol	100	○	○	○
Methanol	100	○	○	○
Trichoroethylene	100	○	○	○
Butanone	100	○	○	○

*Limitation of slurry to be handled

Concentration : 5%
 Particle size : 50μ
 Hardness : HS 80 degree
 Note : Flush pump inside every 1-3 months

Note:

1. This list is only for reference to select pump model. The chemical resisting effect is shown under certain condition.
2. The lowest temp. of chemical allowed here is 0°C.
3. Allowable environment condition 0~40°C, 35~85%.



Usable



Useful with care



Do not use



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