



소방 펌프

입형 다단펌프 PPF Series

입형 다단펌프 (PPF Series)

01

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02

선정방법	111
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03

선정표	118
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04

충압용 모델

PPF5	60 LPM	(3.6 m ³ /h)	122
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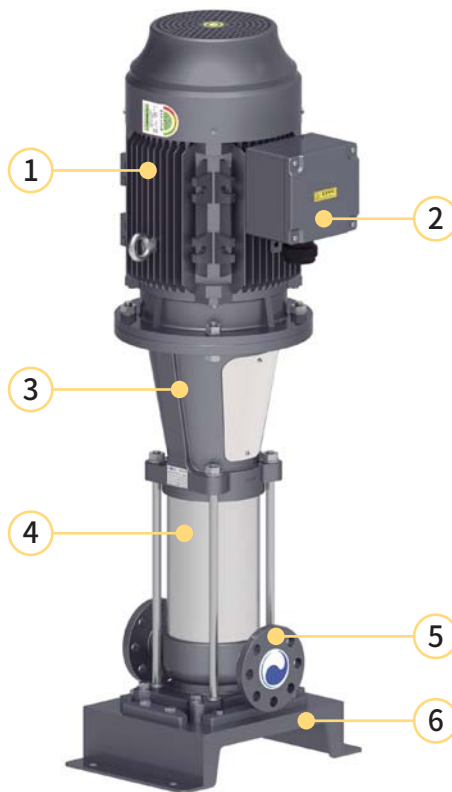
05

주펌프 모델

PPF10	130 ~ 160 LPM	(7.8 ~ 9.6 m ³ /h)	124
PPF15	260 ~ 300 LPM	(15.6 ~ 18 m ³ /h)	126
PPF20	350 ~ 380 LPM	(21 ~ 22.8 m ³ /h)	128
PPF32	380 ~ 520 LPM	(22.8 ~ 31.2 m ³ /h)	130
PPF45	520 ~ 800 LPM	(31.2 ~ 48 m ³ /h)	132
PPF64	750 ~ 1,000 LPM	(45 ~ 60 m ³ /h)	134
PPF100	1,000 ~ 1,500 LPM	(60 ~ 90 m ³ /h)	136
PPF130	1,450 ~ 2,000 LPM	(87 ~ 120 m ³ /h)	138
PPF160	2,000 ~ 2,500 LPM	(120 ~ 150 m ³ /h)	140
PPF190	2,500 ~ 3,000 LPM	(150 ~ 180 m ³ /h)	142
PPF220	3,000 ~ 3,600 LPM	(180 ~ 216 m ³ /h)	144

소방 입형 다단펌프 소개

외형 구조



① 모터



② 단자함



③ 모터브라켓



④ 펌프



⑤ 플랜지



⑥ 내진베이스

외형 특징

- 기존 횡형방식 소방 펌프 대비, 작은 공간에도 설치가 가능합니다.
- 별도의 방진가대, 내진 스토퍼가 필요하지 않습니다.

적용 분야

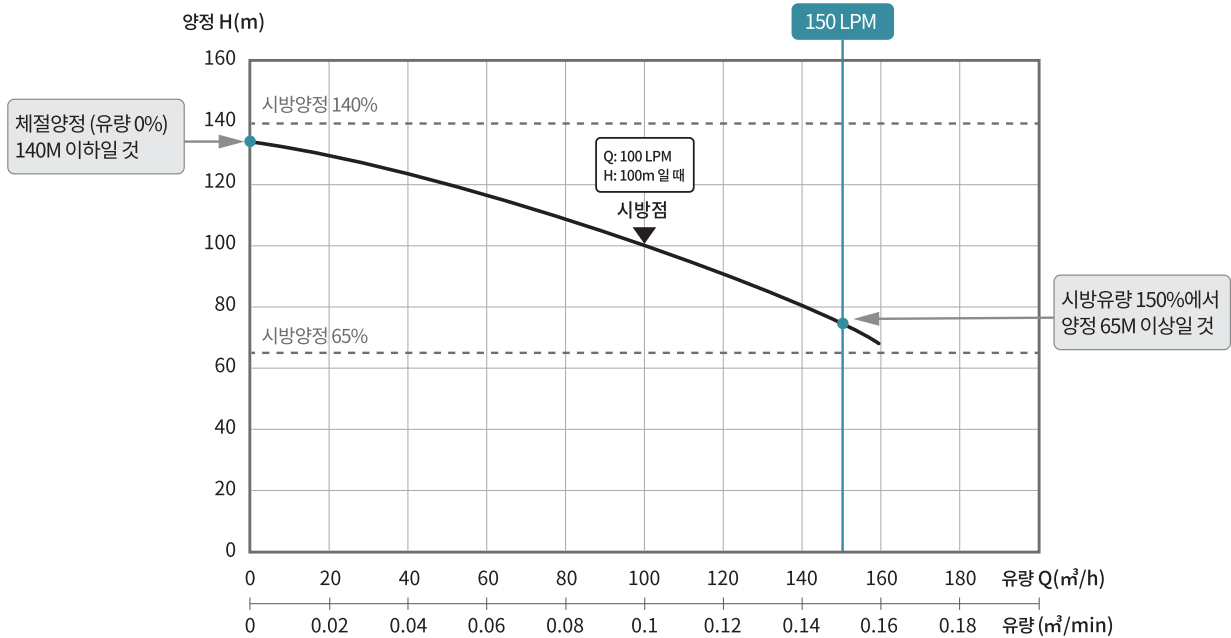
- 소방 전용 펌프
- 소화전 설비
- 스프링클러 설비

사용 유체

- 일반청수 등 점도가 높지 않고 섬유질이나 마모를 일으킬 수 있는 이물질이 포함되지 않은 유체
- 사용 유체 온도: 0°C ~ 80°C

소방용 펌프 선정방법

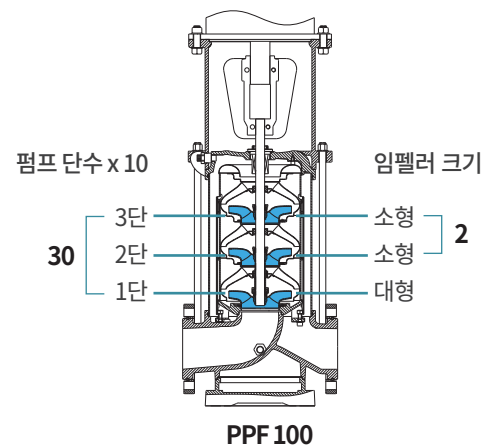
- 체절양정이 시방양정의 140%를 초과하지 아니할것.
- 시방토출량의 150%로 운전 시 토출양정이 시방양정의 65% 이상이 될 것.



모델 형식

PPF 100 - 30 - 2

- 임펠러 크기
- 펌프 단수 x 10
- 공칭유량 (m³/h)
- 모델명



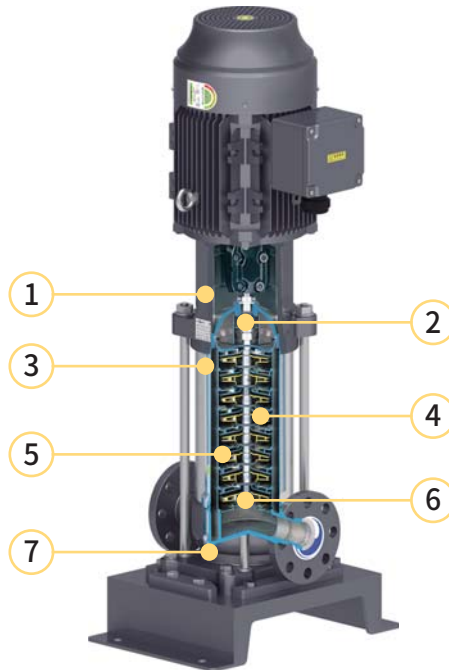
명판 형식

HWA RANG		입형 다단 펌프	
1	모델명	PPF20-30-1	회전방향 →
2	유량	0.35 m³/min	양정 100 M
4	동력	5.5 kW	회전수 3530 RPM
6	제조년월	2407	제조번호 01234
A/S 1899-4301			

1. 모델명
2. 시방 유량 (m³/min)
3. 시방 양정(m)
4. 동력 (kW)
5. 회전수 (RPM)
6. 제조년월
7. 제조번호

소방 입형 다단펌프 소개

내부 구조



* 화재안전기술기준 적합 구성품 사용



내부 특징

- 부식에 강한 스테인레스 스틸(STS304) 재질을 사용하여 펌프 고착을 방지합니다.
- 카트리지 형(Cartridge Type) 메카니컬 씰을 사용하기에 모터 탈거없이 간편한 교체가 가능합니다. (PPF32 모델 이상)

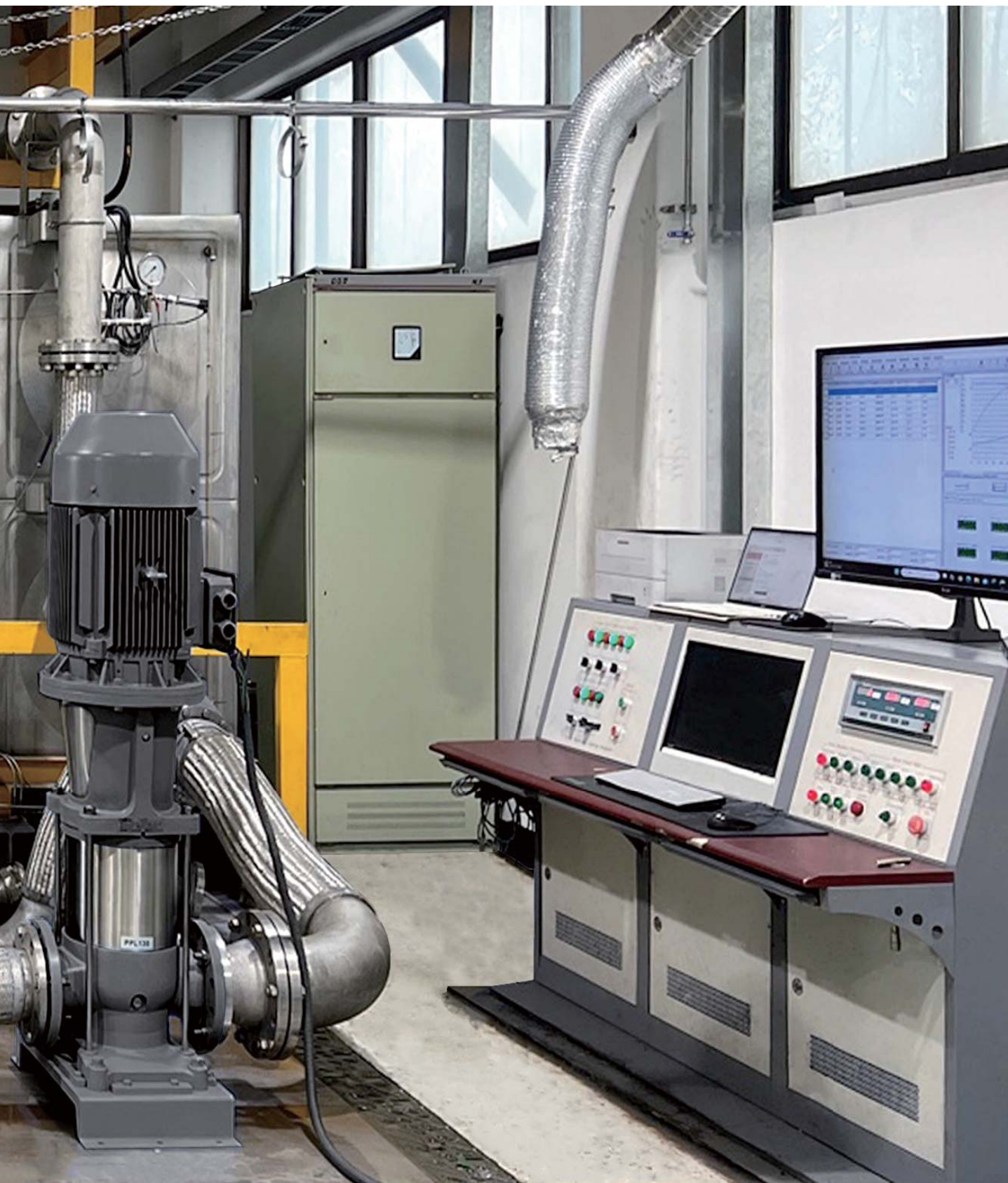
모터 사양

구분	내용
형 식	전폐형(TEFC) 삼상 유도전동기
극 수	2극
보호등급	IP55
절연등급	Class F
전원사양	7.5kW 이하 - 삼상 220 / 380V 11kW 이상 - 삼상 380V
결선	Δ 삼상 220V (7.5kW 이하) Y 삼상 380V (7.5kW 이하) $Y-\Delta$ 삼상 380V (11kW 이상)

펌프 기동 방식

구분	7.5kW 이하		11kW 이상	
사용전압	220V	380V	380V	
기동법	직입기동 (Δ)	직입기동 (Y)	Y-Δ 기동	리액터 기동 (Δ)
모터 배선				
기동 회로				
적용	7.5kW 이하	7.5kW 이하	11~50kW 권장	50kW 이상 권장





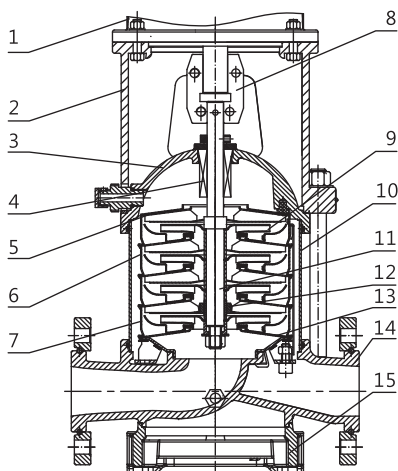
소방 입형 다단펌프 소개

사양 범위

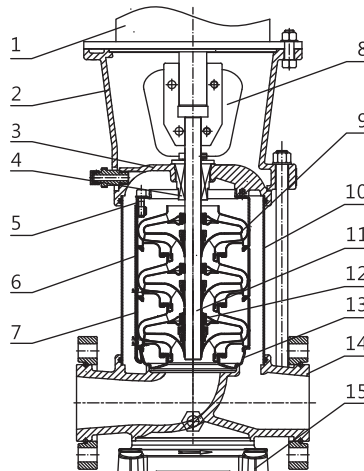
모델	PPF 5	PPF 10	PPF 15	PPF 20	PPF 32	PPF 45
공칭 유량 (m³/h)	5	10	15	20	32	45
유량 범위 (m³/h)	3~8	6~15	12~27	21~34	22~46	31~72
최대 양정 (m)	238	149	159	210	190	180
모터동력 (kW)	1.5~7.5	2.2~7.5	3~15	4~18.5	5.5~22	7.5~30
흡입 · 토출 구경(A)	32 x 32	40 x 40	50 x 50	50 x 50	65 x 65	80 x 80
플랜지 (KS)	32A 10/20K	40A 10/20K	50A 10/20K	50A 10/20K	65A 10/20K	80A 10/20K

모델	PPF 64	PPF 100	PPF 130	PPF 160	PPF 190	PPF 220
공칭 유량 (m³/h)	64	100	130	160	190	220
유량 범위 (m³/h)	48~95	63~144	96~180	127~239	159~263	180~324
최대 양정 (m)	205	230	213	208	220	201
모터동력 (kW)	7.5~45	15~75	18.5~90	30~90	37~110	55~110
흡입 · 토출 구경(A)	100 x 100	100 x 100	150 x 150	150 x 150	200 x 200	200 x 200
플랜지 (KS)	100A 10/20K	100A 10/20K	150A 20K	150A 20K	200A 20K	200A 20K

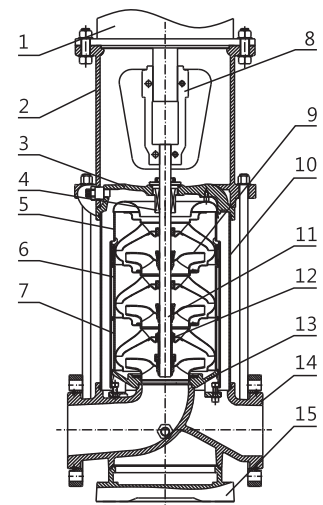
내부 단면도



PPF 5, 10, 15, 20



PPF 32, 45, 64



PPF 100, 130, 160, 190, 220

부품 재질 사양

번호	구성품	PPF		
		5, 10, 15, 20	32, 45, 64	100, 130, 160, 190, 220
1	모터 (Motor)	Aluminum (18.5kW 이하)	Aluminum (18.5kW 이하) / Cast iron (22kW 이상)	Aluminum (18.5kW 이하) / Cast iron (22kW 이상)
2	모터브라켓 (Bracket)	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12
3	씰 베이스 (Seal base)	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12
4	메카니컬 씰 (Mechanical seal)	Tungsten carbide (회전자) Carbon (고정자) Viton (고무링)	Tungsten carbide (회전자) Carbon (고정자) Viton (고무링)	Tungsten carbide (회전자) Carbon (고정자) Viton (고무링)
5	탑 디퓨저 (Top diffuser)	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304
6	디퓨저 (Diffuser)	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304
7	서포트 디퓨저 (Support diffuser)	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304
8	커플링 (Coupling)	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12
9	임펠러 (Impeller)	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304
10	외부 케이싱 (Cylinder casing)	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304
11	샤프트 (Shaft)	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304
12	베어링 (Bearing)	Silicon carbide(SiC) / Tungsten carbide (WC)	Silicon carbide(SiC) / Tungsten carbide (WC)	Silicon carbide(SiC) / Tungsten carbide (WC)
13	인듀서 (Inducer)	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304	Stainless steel EN 10088-1.4301 AISI 304
14	하부 케이싱 (Inlet&outlet chamber)	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12
15	베이스 (Base)	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12	Ductile Cast iron EN 1563 EN-GJS-500-7 ASTM A536 65-45-12

H \ Q	140% 100%	0.06 총압	0.13 0.195	0.15 0.225	0.2 0.3	0.26 0.39	0.3 0.45	0.35 0.525	0.4 0.600	0.45 0.675
205	287 133.3	5-240 7.5								
200	280 130									
195	273 126.8	5-220 5.5								
190	266 123.5									
185	259 120.3									
180	252 117									
175	245 113.8	5-200 5.5						20-100 18.5	32-70 22	
170	238 110.5				15-100 15					32-70 22
165	231 107.3					15-100 15				
160	224 104	5-180 5.5					15-100 15	20-90 15		
155	217 100.8				15-80 11				32-60 18.5	
150	210 97.5					15-80 11				32-60 18.5
145	203 94.3	5-160 4					15-80 11	20-80 15	32-60-1 15	
140	196 91		10-100 5.5							32-60-1 15
135	189 87.8	5-150 3		10-100 5.5	15-70 11					
130	182 84.5				15-70-1 7.5	15-70 11		20-70 15	32-50 15	
125	175 81.3	5-140 3	10-90 5.5			15-70-1 7.5	15-70 11			32-50 15
120	168 78			10-90 5.5			15-70-1 7.5		32-50-1 15	
115	161 74.8	5-130 3								32-50-1 15
110	154 71.5		10-80 5.5		15-60 7.5			20-60 11		
105	147 68.3	5-120 3		10-80 5.5		15-60 7.5				
100	140 65				15-60-1 7.5		15-60 7.5		32-40 11	
95	133 61.8	5-110 3	10-70 4	10-70 4						32-40 11
90	126 58.5	5-100 3			15-50 7.5	15-50 7.5		20-50 11	32-40-1 11	32-40-1 11
85	119 55.3						15-50 7.5			
80	112 52	5-90 2.2	10-60 4	10-60 4						
75	105 48.8				15-40 5.5			20-50-1 11	32-30 11	32-40-2 11
70	98 45.5	5-80 2.2	10-50 3			15-40 5.5			32-30-1 7.5	32-30 11
65	91 42.3			10-50 3	15-40-1 4		15-40 5.5	20-40 7.5		32-30-1 7.5
60	84 39	5-70 2.2				15-40-1 4		20-40-1 7.5		
55	77 35.8	5-60 2.2	10-40 2.2		15-30 4					
50	70 32.5			10-40 2.2	15-30-1 3	15-30 4	15-30 4	20-30 5.5	32-20 5.5	32-20 5.5
45	63 29.3	5-50 1.5				15-30-1 3				
40	56 26		10-30 1.5	10-30 1.5			15-30-1 3	20-30-2 4	32-20-1 5.5	32-20-1 5.5
35	49 22.8	5-40 1.5			15-20 3	15-20 3	15-20 3	20-20 3		
H \ Q	100% 150%	0.06 총압	0.13 0.195	0.15 0.225	0.2 0.3	0.26 0.39	0.3 0.45	0.35 0.525	0.4 0.600	0.45 0.675

0.52 0.780	0.6 0.9	0.65 0.98	0.7 1.05	0.8 1.2	0.9 1.35	0.96 1.44	1.0 1.5	1.06 1.6	140% 100%	Q	H
									287 133.3		205
									280 130		200
									273 126.8		195
									266 123.5		190
									259 120.3		185
									252 117		180
					64-50 45				245 113.8		175
						64-50 45			238 110.5		170
32-70 22	45-50 30	45-50 30					64-50 45		231 107.3		165
			45-50 30					64-50 45	224 104		160
				45-50 30	64-50-2 37	64-50-2 37			217 100.8		155
	45-50-2 30	45-50-2 30					64-50-2 37		210 97.5		150
			45-50-2 30					64-50-2 37	203 94.3		145
32-60 18.5				45-50-2 30	64-40 37	64-40 37			196 91		140
	45-40 22	45-40 22					64-40 37		189 87.8		135
32-60-1 15			45-40 22		64-40-1 30			64-40 37	182 84.5		130
				45-40 22					175 81.3		125
32-50 15	45-40-2 18.5	45-40-2 18.5				64-40-1 30	64-40-1 30	64-40-1 30	168 78		120
			45-40-2 18.5						161 74.8		115
				45-40-2 18.5	64-30 30				154 71.5		110
32-50-1 15						64-30 30	64-30 30	64-40-2 30	147 68.3		105
	45-30 15							64-30 30	140 65		100
32-40 11	45-30-1 15	45-30 15	45-30 15		64-30-1 22	64-30-1 22	64-30-1 22		133 61.8		95
		45-30-1 15	45-30-1 15					64-30-1 22	126 58.5		90
	45-30-2 15			45-30 15	64-30-2 18.5	64-30-2 18.5	64-30-2 18.5		119 55.3		85
32-40-1 11		45-30-2 15	45-30-2 15					64-30-2 18.5	112 52		80
				45-30-1 15					105 48.8		75
32-40-2 11				64-20 15	64-20 15	64-20 15	64-20 15		98 45.5		70
45-20 11	45-20 11	45-30-3 15	45-30-3 15					64-20 15	91 42.3		65
45-20-1 7.5	45-20-1 7.5	45-20-1 7.5	45-20 11						84 39		60
45-20-2 7.5	45-20-2 7.5		45-20-1 7.5	45-20 7.5	64-20-1 11	64-20-1 11	64-20-1 11	64-20-1 11	77 35.8		55
		45-20-2 7.5		64-20-2 11	64-20-2 11	64-20-2 11	64-20-2 11	64-20-2 11	70 32.5		50
			45-20-2 7.5						63 29.3		45
64-10 7.5	64-10 7.5	64-10 7.5	64-10 7.5	100-10 11	100-10 11	100-10 11	100-10 11	100-10 11	56 26		40
45-10 5.5				64-10 7.5	64-10 7.5	64-10 7.5	64-10 7.5		49 22.8		35
0.52 0.780	0.6 0.900	0.65 0.98	0.7 1.05	0.8 1.2	0.9 1.35	0.96 1.44	1.0 1.5	1.06 1.6	100% 150%	Q	H

1. H는 양정(m)이며, Q는 유량(m³/min)입니다.

2. 양정의 상단은 정격양정의 140% 하단은 65%입니다.

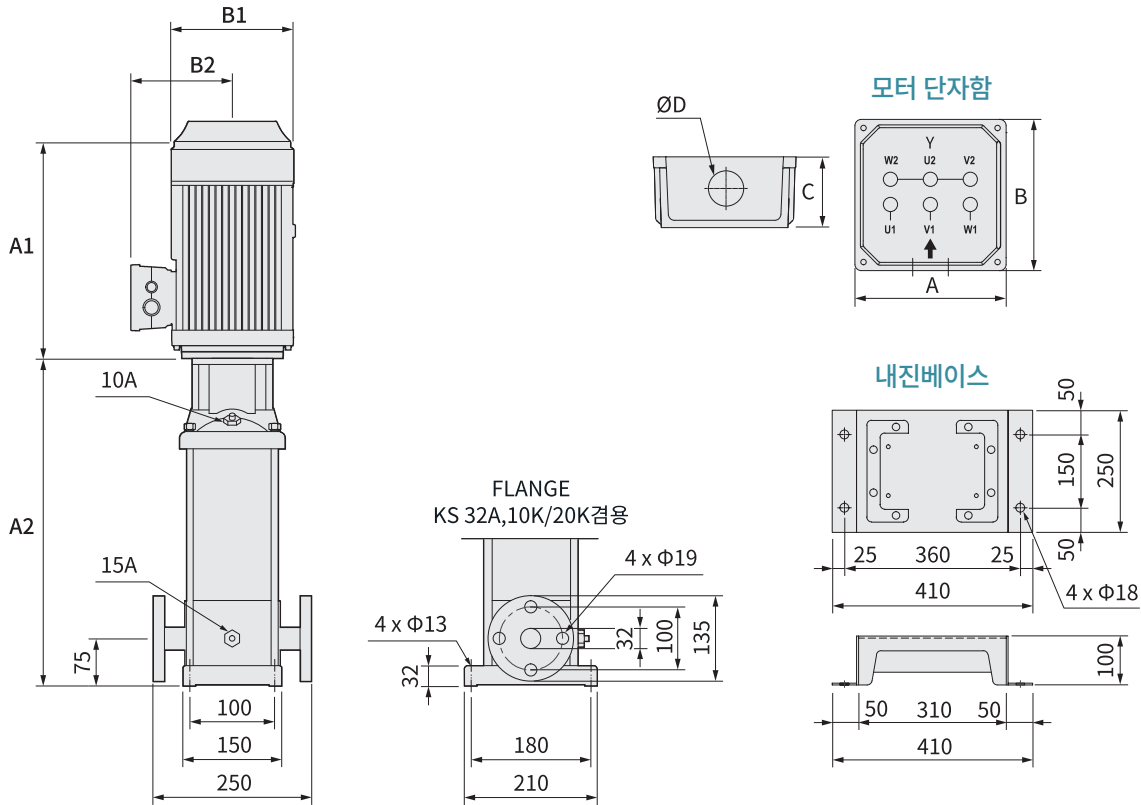
3. 표안의 표기는 펌프 MODEL, 동력(kW)입니다

4. 체절운전시 토출압력이 140%를 초과하지 않는다.

5. 유량이 150%로 운전시 토출압력이 65%이상 되어야한다.

H \ Q	140% 100%	1.2 1.8	1.35 2.0	1.45 2.2	1.55 2.33	1.6 2.4	1.73 2.6	1.86 2.8	1.9 2.9	2.0 3.0
205	287 133.3									
200	280 130	100-50 75	100-50 75							
195	273 126.8			100-50 75						
190	266 123.5				100-50 75		130-50-2 90			
185	259 120.3					100-50 75	130-50-2 90	130-50-2 90	130-50-2 90	
180	252 117	100-50-2 55	100-50-2 55							
175	245 113.8			100-50-2 55			130-40 75			
170	238 110.5				100-50-2 55		130-40 75	130-40 75	130-40 75	
165	231 107.3					100-50-2 55				
160	224 104	100-40 55	100-40 55				130-40-1 75			
155	217 100.8			100-40 55			130-40-1 75	130-40-1 75		
150	210 97.5	100-40-1 45	100-40-1 45							130-40-1 75
145	203 94.3			100-40-1 45	100-40 55		130-40-2 55			
140	196 91	100-40-2 45	100-40-2 45			100-40 55	130-40-2 55	130-40-2 55		
135	189 87.8									130-40-2 55
130	182 84.5	100-40-3 37		100-40-2 45	100-40-1 45		130-30 55			
125	175 81.3	100-30 37	100-40-3 37			100-40-1 45	130-30 55	130-30 55		
120	168 78		100-30 37	100-30 37						130-30 55
115	161 74.8				100-30 37	100-30 37	130-30-1 45	130-30-1 45	130-30-1 45	
110	154 71.5	100-30-1 30	100-30-1 30							
105	147 68.3			100-30-1 30						130-30-1 45
100	140 65				100-30-1 30		130-30-3 37			
95	133 61.8	100-30-2 30				130-30-3 37		130-30-3 37	130-30-3 37	
90	126 58.5		100-30-2 30	100-30-2 30						130-30-2 45
85	119 55.3					130-20 30	130-20 30			130-30-3 37
80	112 52	100-30-3 30			130-20 30			130-20 30	130-20 30	130-20 30
75	105 48.8		130-20 30	130-20 30						
70	98 45.5	100-20 22	100-20 22	100-20 22			130-20-1 30			
65	91 42.3		100-20-1 22		100-20 22	130-20-2 22		130-20-1 30	130-20-1 30	
60	84 39	100-20-2 18.5		100-20-1 22			130-20-2 22			130-20-1 30
55	77 35.8		100-20-2 18.5	130-20-2 22	100-20-1 22			130-20-2 22		190-10 30
50	70 32.5				130-20-2 22				130-20-2 22	130-20-2 22
45	63 29.3	130-10 15	130-10 15	130-10 15	160-10-1 18.5	160-10-1 18.5	160-10 22	160-10 22	160-10 22	160-10 22
40	56 26	100-10 11			130-10-1 15	130-10-1 15	130-10-1 15	130-10 18.5	130-10 18.5	130-10 18.5
35	49 22.8		100-10 11	100-10 11	100-10 11	100-10 11		130-10-1 15	130-10-1 15	130-10-1 15
H \ Q	100% 150%	1.2 1.8	1.35 2.0	1.45 2.2	1.55 2.33	1.6 2.4	1.73 2.6	1.86 2.8	1.90 2.9	2.0 3.0

2.25 3.375	2.4 3.6	2.6 3.9	2.7 4.05	2.8 4.2	2.9 4.35	3.0 4.5	3.2 4.8	3.4 5.1	3.6 5.4	140% 100%	Q	H
										287 133.3	205	
										280 130	200	
										273 126.8	195	
		190-40-3 110	190-40-3 110	190-40-3 110	190-40-3 110	190-40-3 110				266 123.5	190	
160-40 90										259 120.3	185	
	160-40 90									252 117	180	
										245 113.8	175	
160-40-2 90										238 110.5	170	
160-40-3 75		190-30 110	190-30 110							231 107.3	165	
	160-40-3 75	190-30-1 90	190-30-1 90	190-30 110	190-30 110	190-30 110				224 104	160	
				190-30-1 90	190-30-1 90	190-30-1 90	220-30-3 110	220-30-3 110		217 100.8	155	
									220-30-3 110	210 97.5	150	
										203 94.3	145	
160-30 75	160-30 75	190-30-3 90	190-30-3 90							196 91	140	
				190-30-3 90	190-30-3 90	190-30-3 90				189 87.8	135	
160-30-1 75							220-20 110	220-20 110	220-20 110	182 84.5	130	
										175 81.3	125	
160-30-2 55	160-30-2 55									168 78	120	
		190-20 75					220-20-1 90	220-20-1 90	220-20-1 90	161 74.8	115	
										154 71.5	110	
160-30-3 45		190-20-1 55	190-20 75	190-20 75	190-20 75	190-20 75				147 68.3	105	
	160-30-3 45						220-20-2 75	220-20-2 75		140 65	100	
		190-20-2 55	190-20-2 55	190-20-2 55	190-20-2 55	190-20-2 55			220-20-2 75	133 61.8	95	
160-20 45	160-20 45									126 58.5	90	
										119 55.3	85	
160-20-1 37	160-20-1 37						220-20-3 55	NG	NG	112 52	80	
								220-20-3 55	220-20-3 55	105 48.8	75	
		220-20-3 55	220-20-3 55	220-20-3 55	220-20-3 55	220-20-3 55				98 45.5	70	
160-20-2 37	160-20-2 37	220-10 45	220-10 45	220-10 45	220-10 45	220-10 45				91 42.3	65	
							220-10 45	220-10 45	220-10 45	84 39	60	
190-10 30	190-10 30	190-10 30	190-10 30							77 35.8	55	
				190-10 30	190-10 30	190-10 30	220-10-1 37			70 32.5	50	
160-10 22	160-10 22							220-10-1 37	220-10-1 37	63 29.3	45	
		190-10-2 22	190-10-2 22	190-10-1 30	190-10-1 30	190-10-1 30		NG	NG	56 26	40	
				190-10-2 22	190-10-2 22		NG	NG	NG	49 22.8	35	
2.25 3.375	2.4 3.6	2.6 3.9	2.7 4.05	2.8 4.20	2.9 4.35	3.0 4.5	3.2 4.8	3.4 5.1	3.6 5.4	100% 150%	Q	H

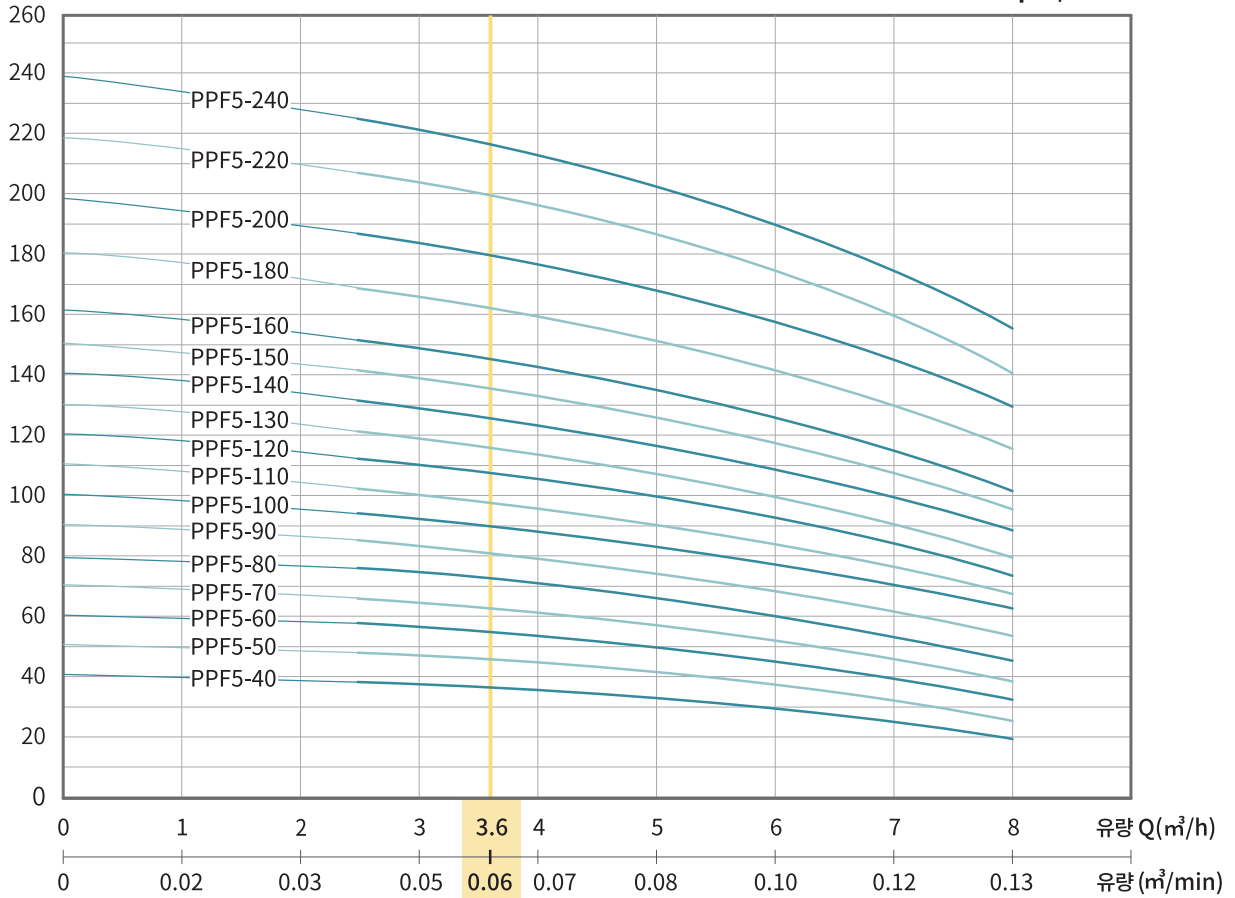


모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF5-40	1.5	2	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	315	340	655	168	132	41
PPF5-50	1.5	2	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	315	377	692	168	132	43
PPF5-60	2.2	3	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	340	404	744	168	132	47
PPF5-70	2.2	3	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	340	431	771	168	132	52
PPF5-80	2.2	3	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	340	458	798	168	132	52
PPF5-90	2.2	3	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	340	485	825	168	132	53
PPF5-100	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	391	512	903	194	161	67
PPF5-110	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	549	941	194	161	67
PPF5-120	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	576	968	194	161	68
PPF5-130	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	603	995	194	161	68
PPF5-140	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	630	1022	194	161	85
PPF5-150	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	657	1049	194	161	85
PPF5-160	4	5	220 / 380	Y	6306ZZ	6206ZZ	113 x 113 x 66	25	391	684	1075	220	175	86
PPF5-180	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	758	1185	260	195	108
PPF5-200	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	812	1239	260	195	108
PPF5-220	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	866	1293	260	195	109
PPF5-240	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	912	1339	260	195	121

성능곡선도

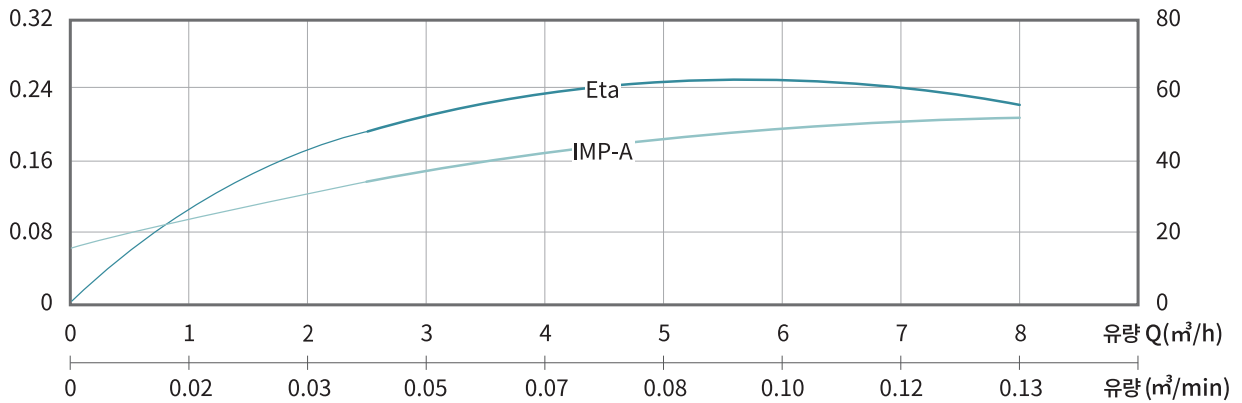
양정 H(m)

3500rpm/60Hz



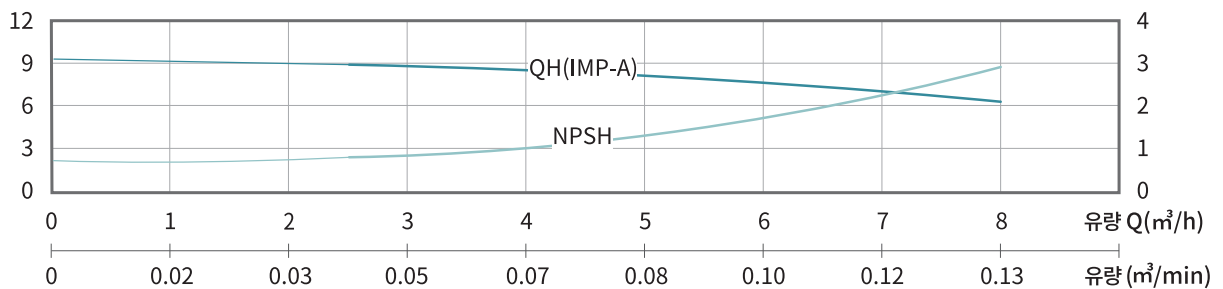
동력 P(kW)

효율 E(%)



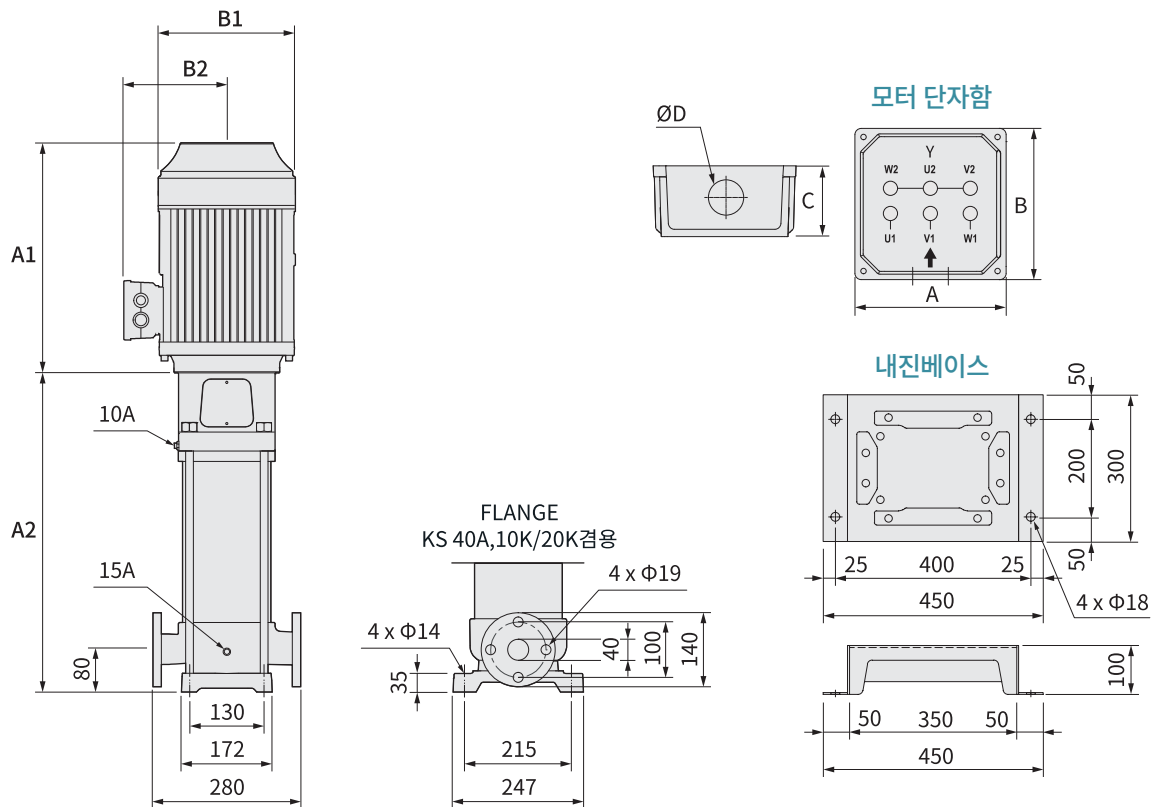
양정 H(m)

흡입수두 NPSH(m)



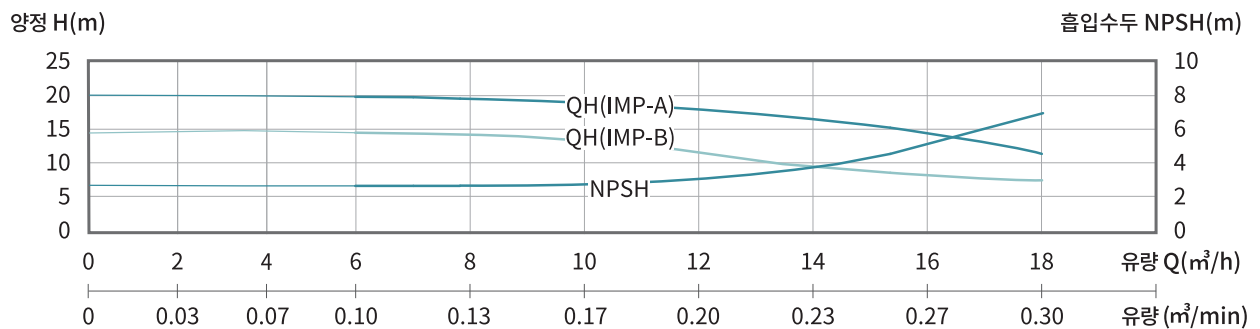
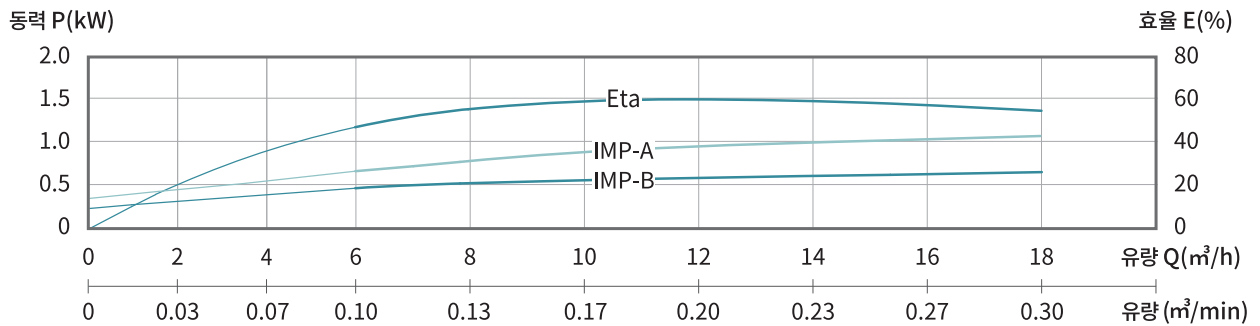
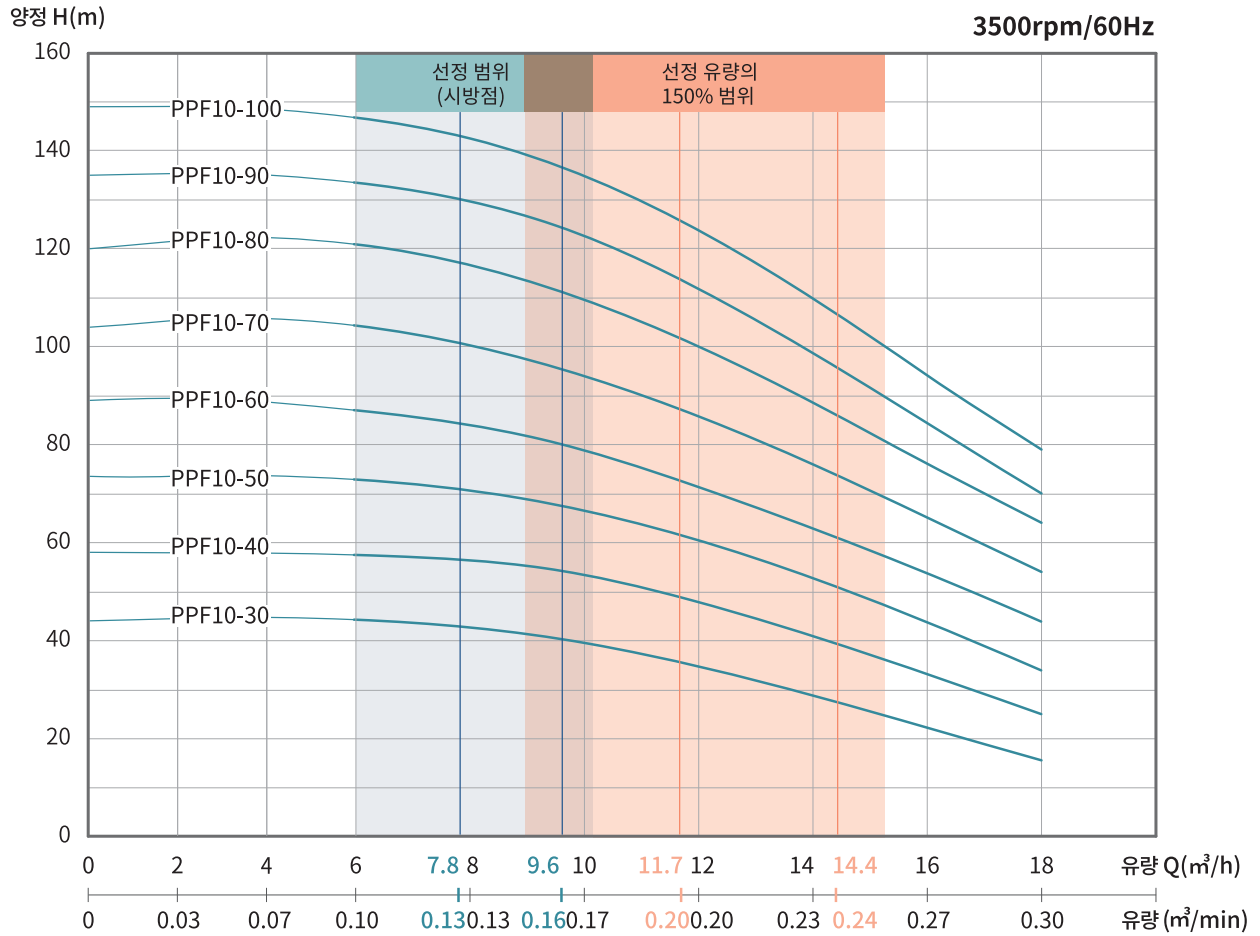
PPF5

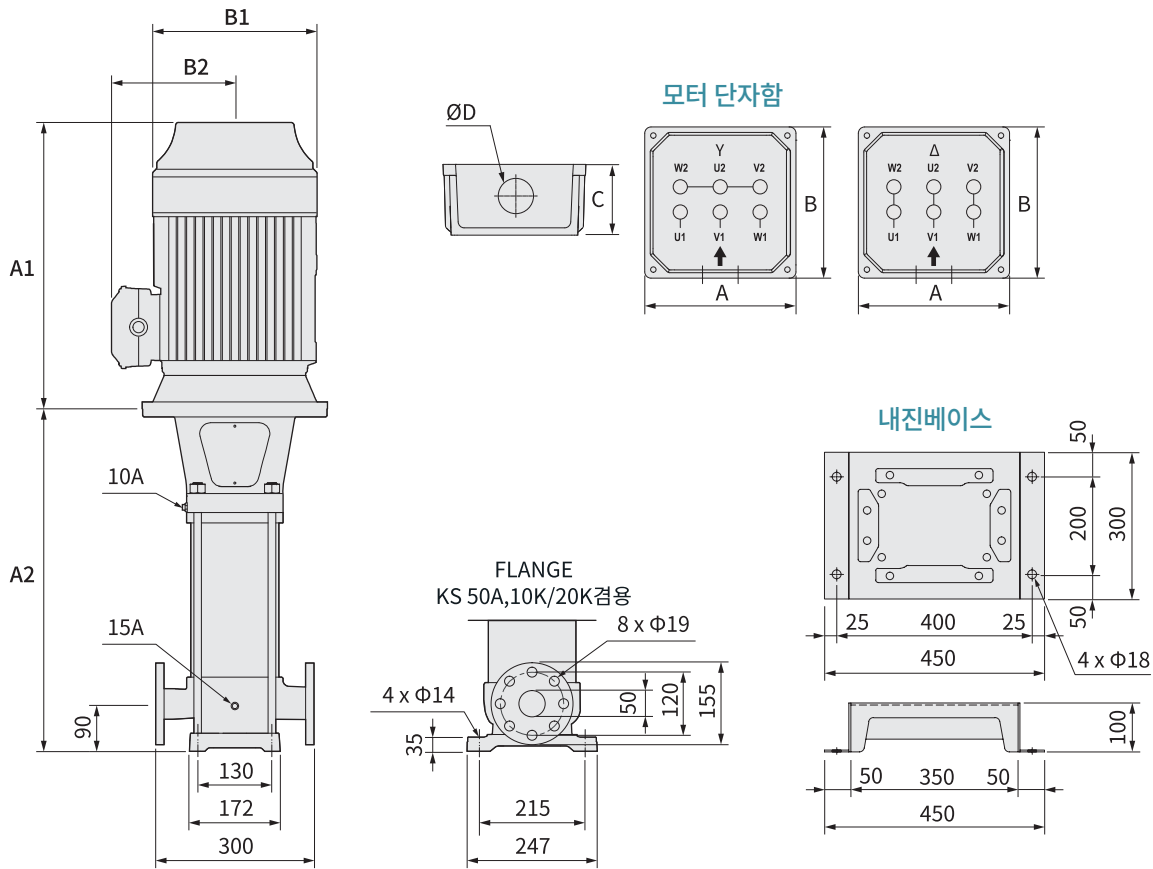
소방 임형 다단펌프



모델	동력		정격전압 (3 Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ΦD	A1	A2	A1+A2	B1	B2	
PPF10-30	1.5	2	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	315	413	728	168	132	54
PPF10-40	2.2	3	220 / 380	Y	6205ZZ	6205ZZ	93 x 93 x 46	22	340	443	783	168	132	59
PPF10-50	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	453	845	194	161	70
PPF10-60	4	5	220 / 380	Y	6306ZZ	6206ZZ	113 x 113 x 66	25	391	483	874	220	175	81
PPF10-70	4	5	220 / 380	Y	6306ZZ	6206ZZ	113 x 113 x 66	25	391	513	904	220	175	82
PPF10-80	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	563	990	260	195	90
PPF10-90	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	593	1020	260	195	98
PPF10-100	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	623	1050	260	195	99

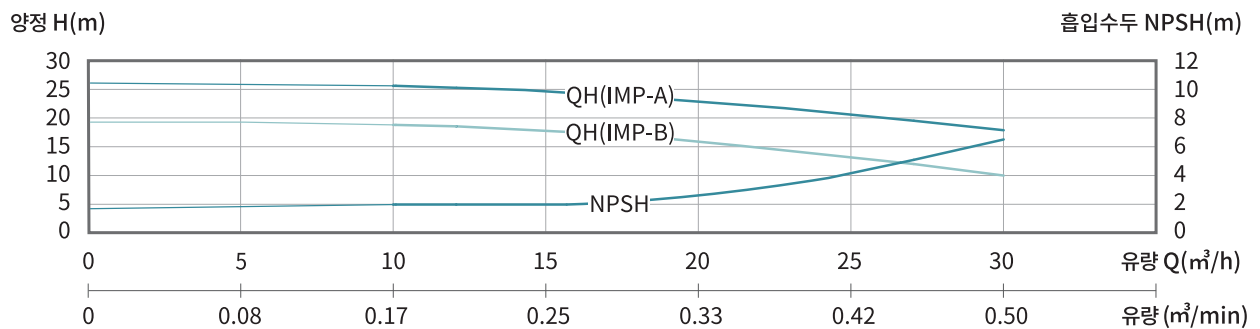
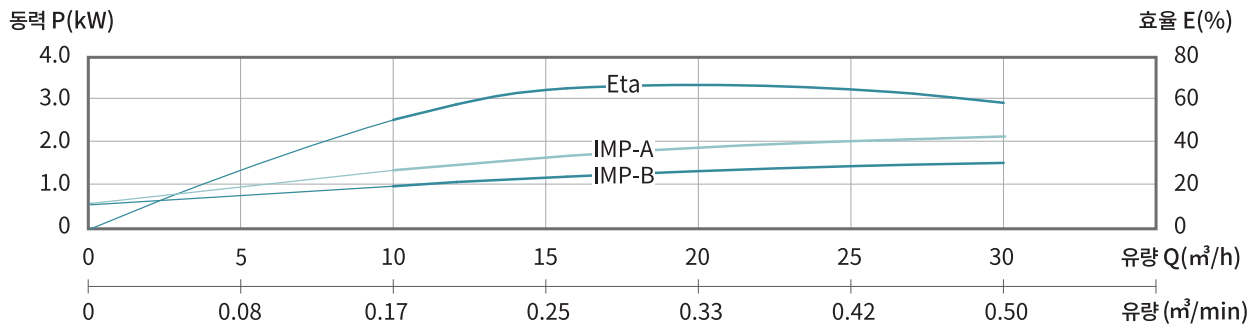
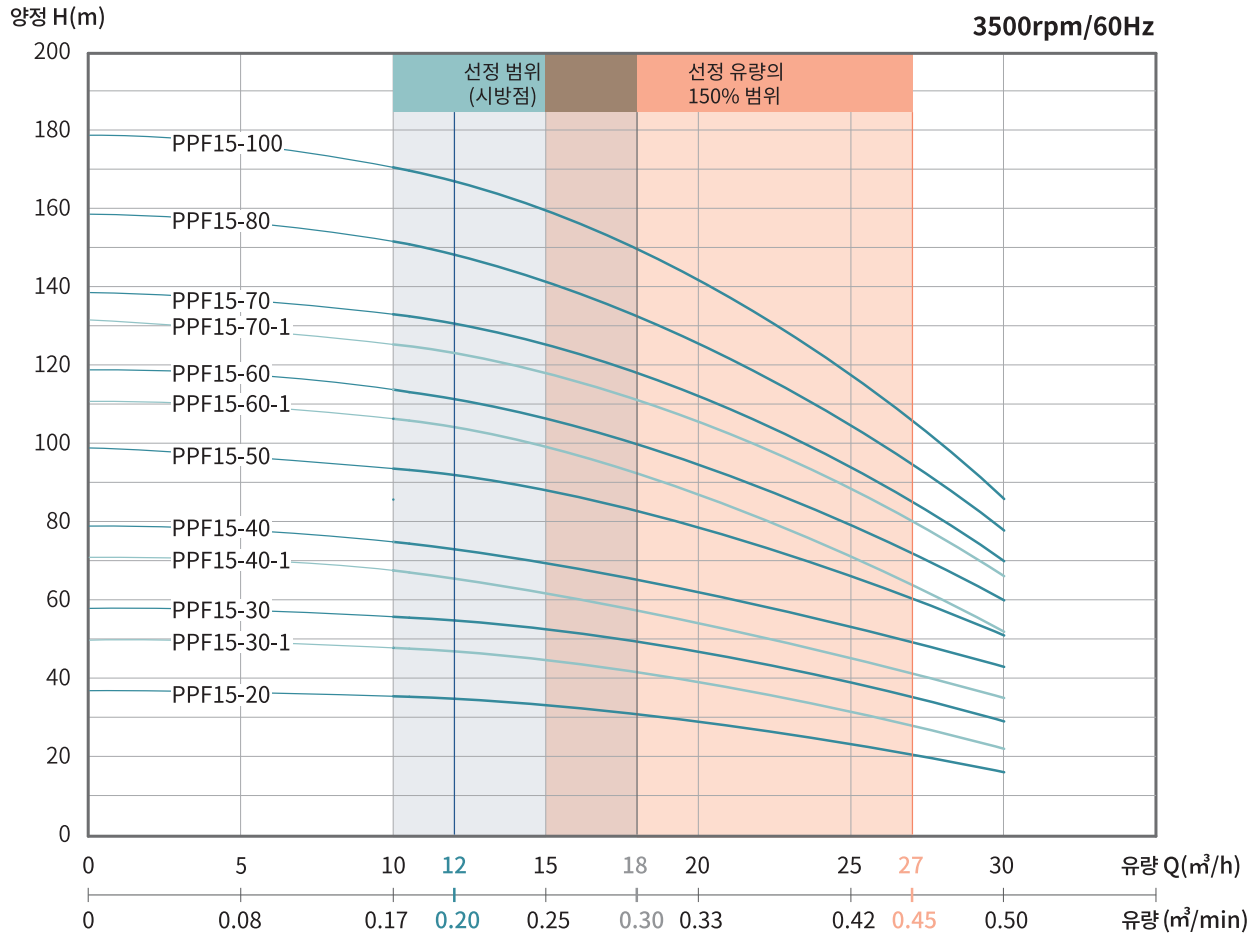
성능곡선도

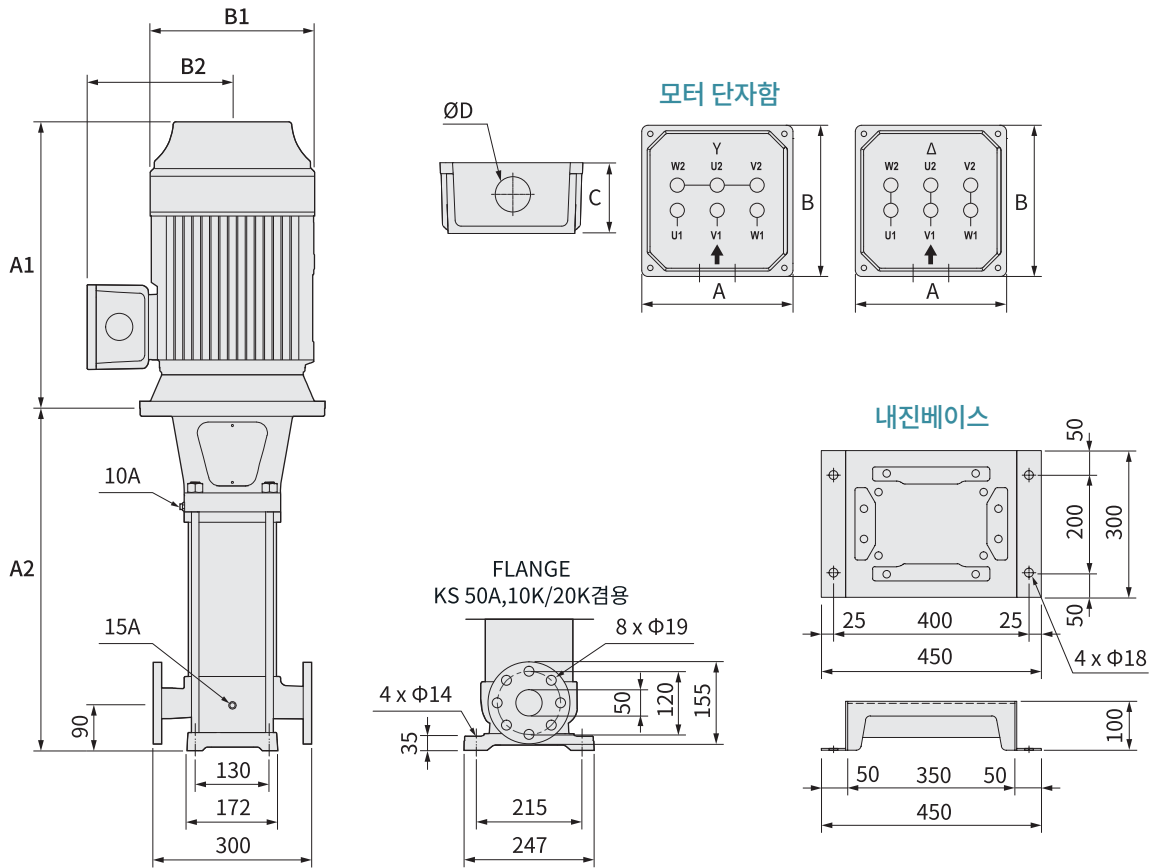




모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF15-20	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	429	821	194	161	66
PPF15-30-1	3	4	220 / 380	Y	6206ZZ	6206ZZ	104 x 104 x 63	22	392	474	866	194	161	69
PPF15-30	4	5	220 / 380	Y	6306ZZ	6206ZZ	113 x 113 x 66	25	391	474	865	220	175	79
PPF15-40-1	4	5	220 / 380	Y	6306ZZ	6206ZZ	113 x 113 x 66	25	391	539	930	220	175	80
PPF15-40	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	539	966	260	195	87
PPF15-50	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	584	1011	260	195	101
PPF15-60-1	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	718	1145	260	195	102
PPF15-60	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	700	1127	260	195	102
PPF15-70-1	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	745	1172	260	195	102
PPF15-70	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	745	1288	311	279	168
PPF15-80	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	790	1333	311	279	169
PPF15-100	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	879	1422	311	279	211

성능곡선도



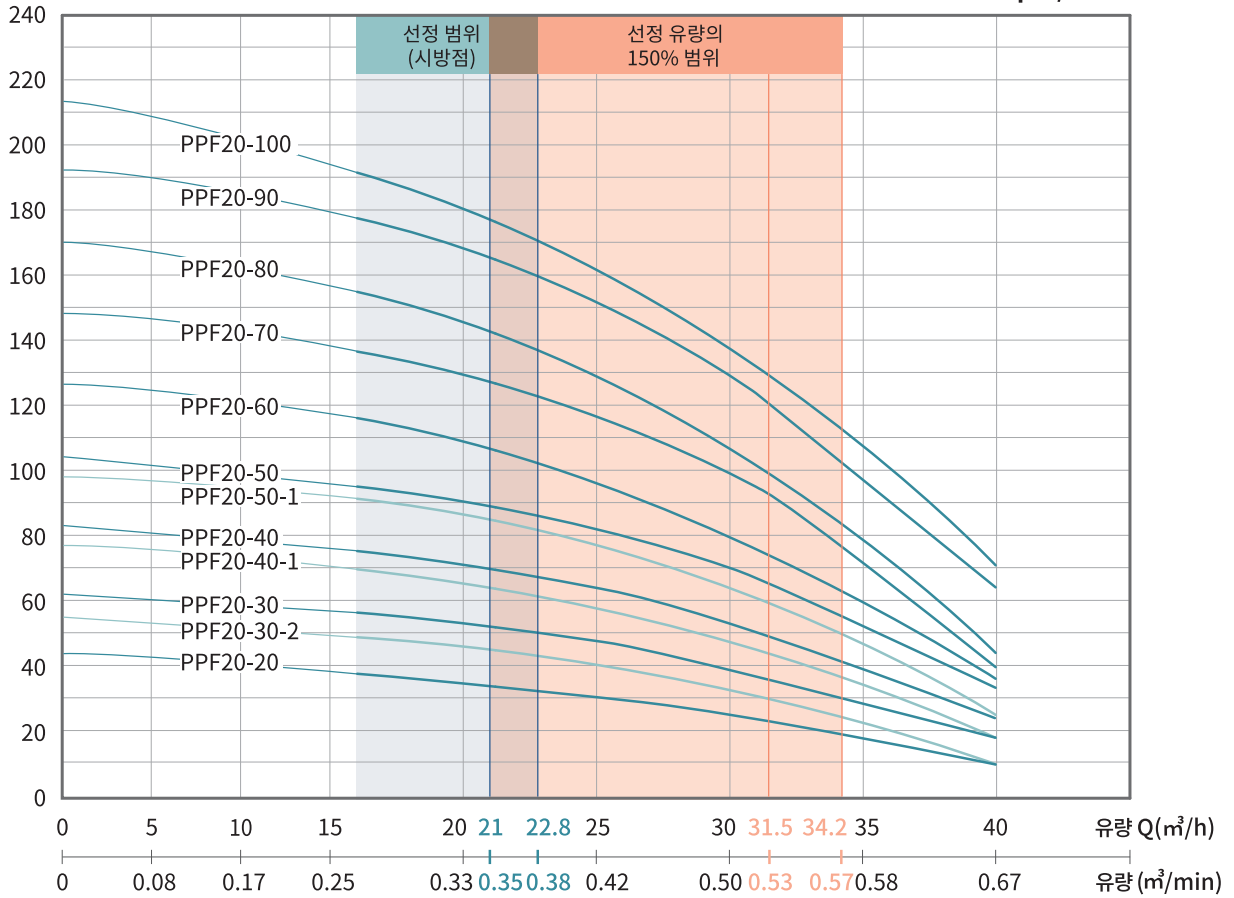


모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF20-20	3	4	220 / 380	Y	6306ZZ	6206ZZ	104 x 104 x 63	22	392	449	841	194	161	79
PPF20-30-2	4	5	220 / 380	Y	6306ZZ	6206ZZ	113 x 113 x 66	25	391	494	885	220	175	81
PPF20-30	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	494	921	260	195	88
PPF20-40-1	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	539	966	260	195	103
PPF20-40	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	539	966	260	195	103
PPF20-50-1	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	654	1197	311	279	169
PPF20-50	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	654	1197	311	279	169
PPF20-60	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	699	1242	311	279	171
PPF20-70	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	744	1287	311	279	212
PPF20-80	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	789	1332	311	279	213
PPF20-90	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	834	1377	311	279	214
PPF20-100	18.5	25	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	587	879	1466	311	279	215

성능곡선도

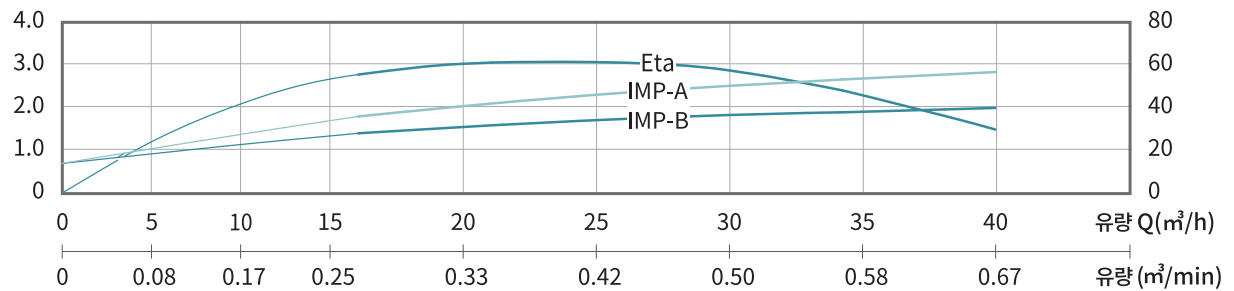
양정 H(m)

3500rpm/60Hz



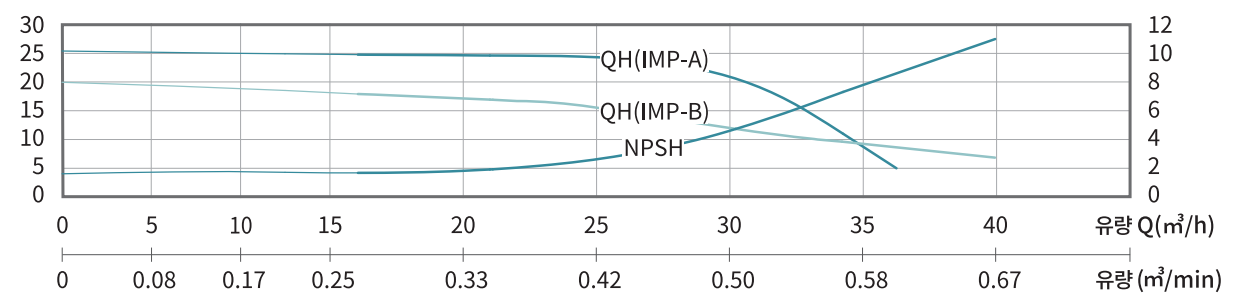
동력 P(kW)

효율 E(%)



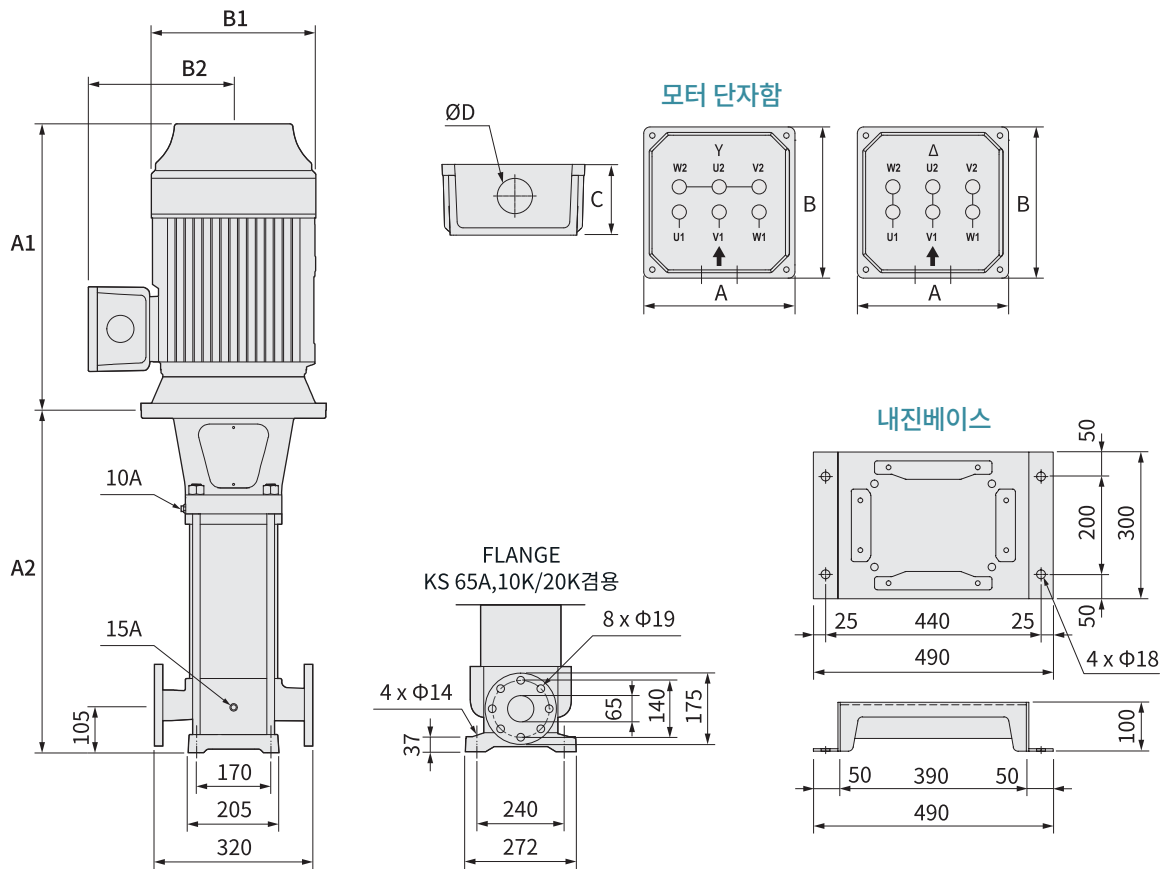
양정 H(m)

흡입수두 NPSH(m)

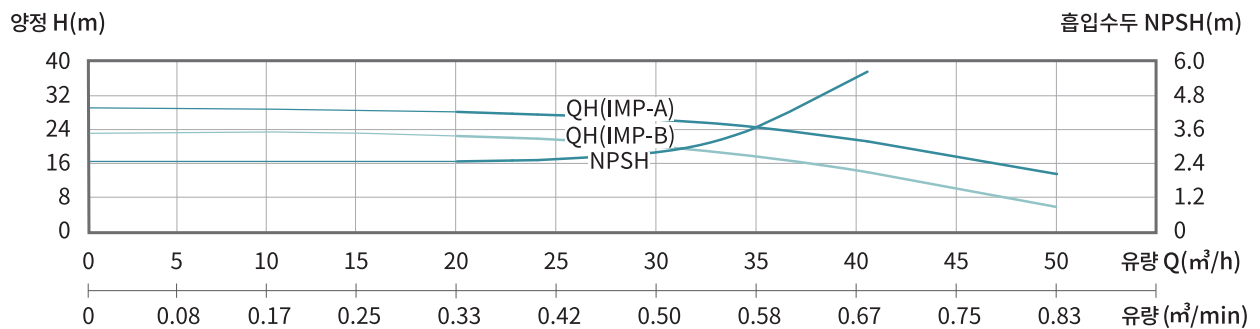
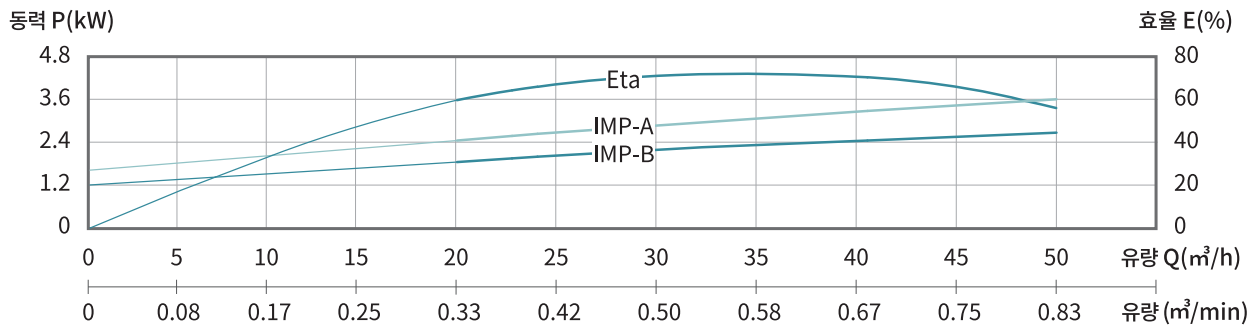
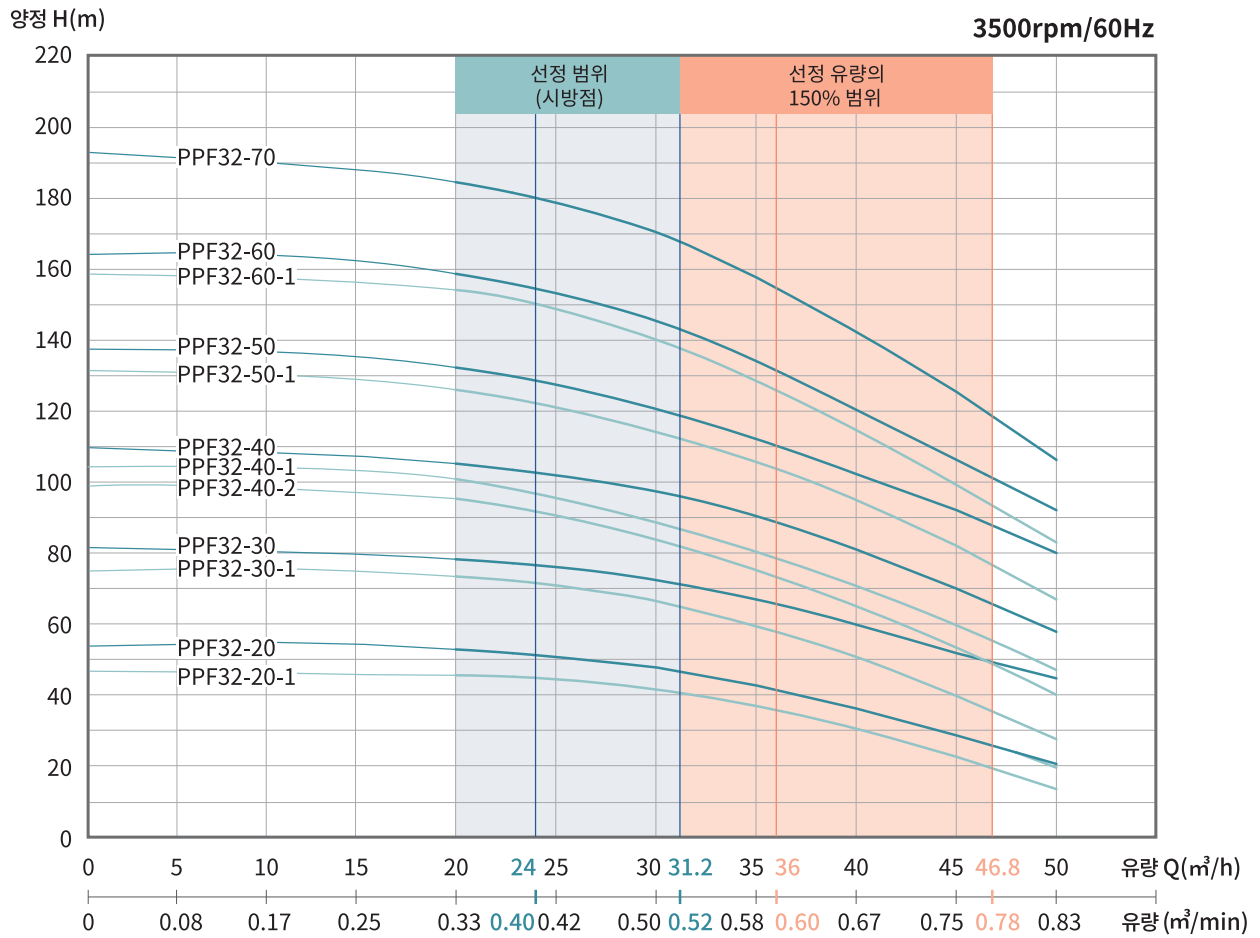


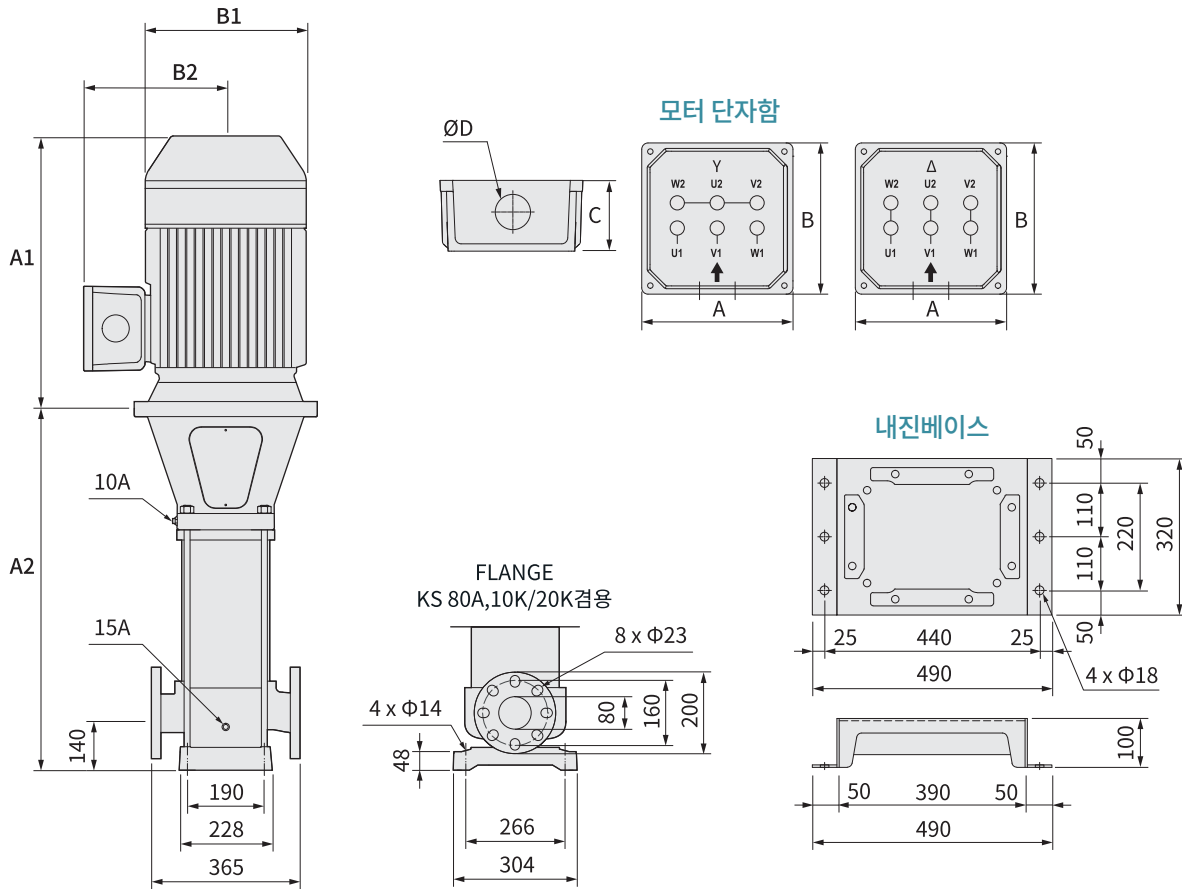
PPF20

수방 입형 다단펌프



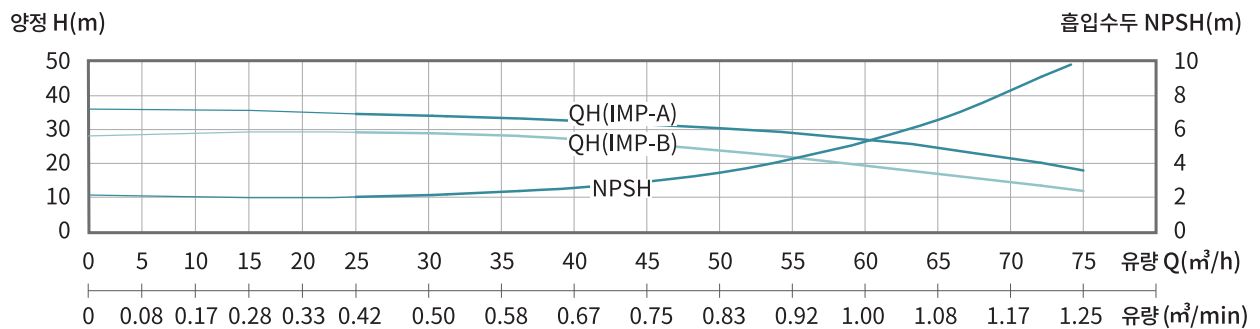
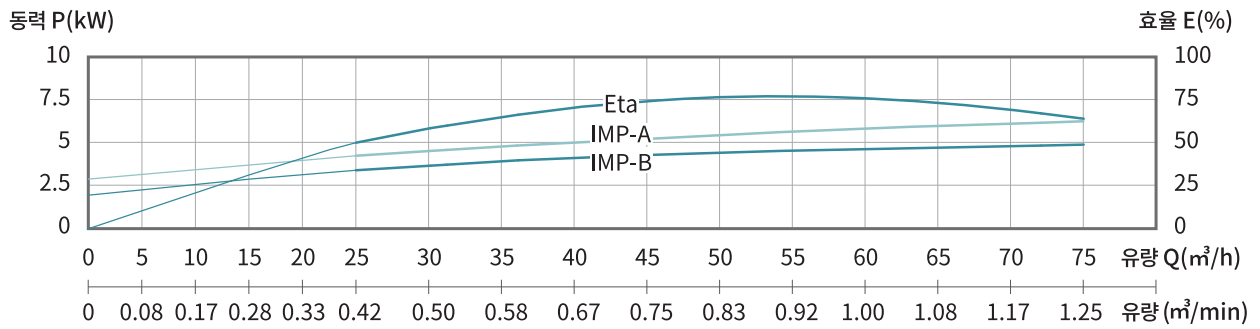
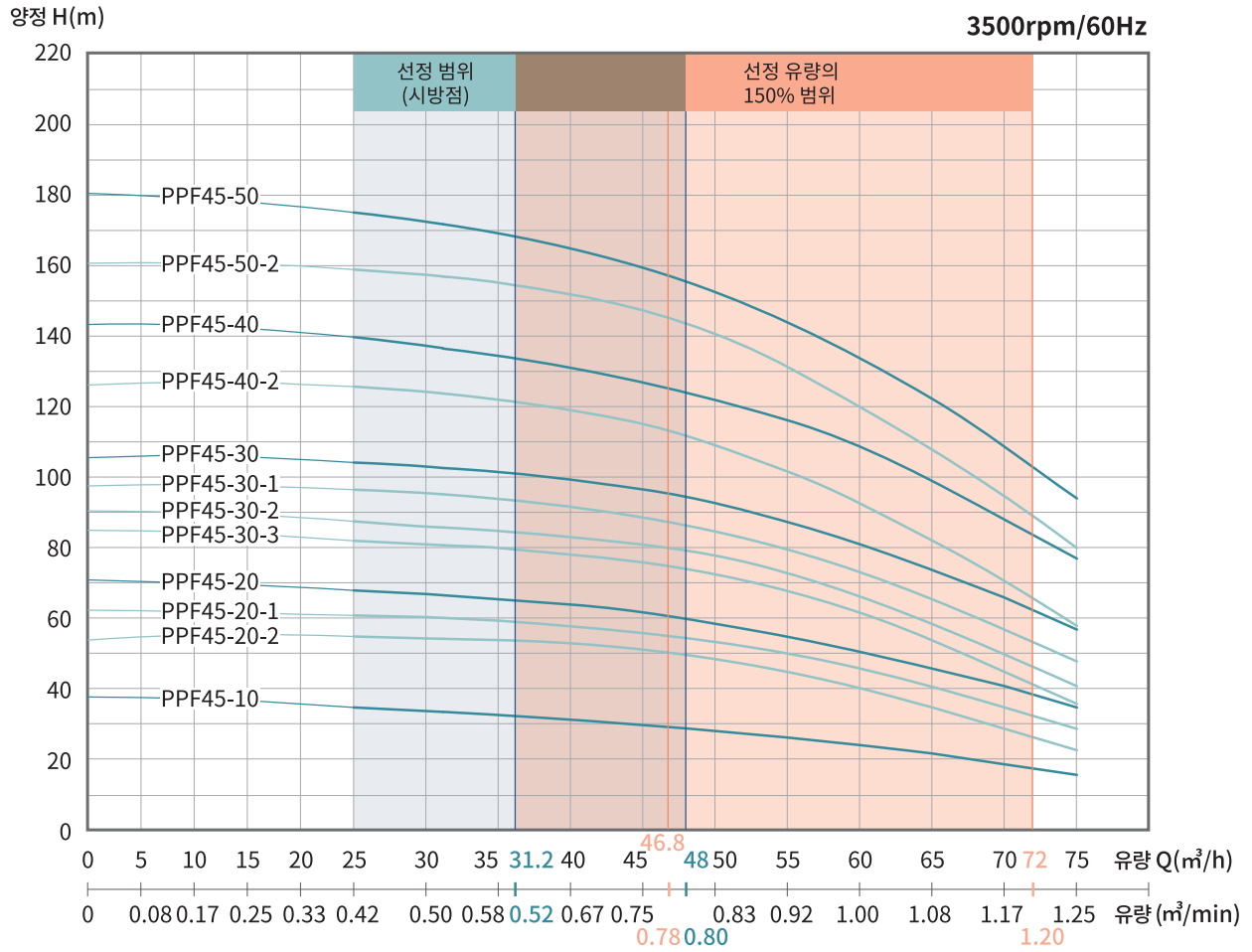
모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF32-20-1	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	530	957	260	195	96
PPF32-20	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	530	957	260	195	96
PPF32-30-1	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	700	1127	260	195	111
PPF32-30	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	700	1243	311	279	176
PPF32-40-2	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	770	1313	311	279	180
PPF32-40-1	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	770	1313	311	279	180
PPF32-40	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	770	1313	311	279	220
PPF32-50-1	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	840	1383	311	279	223
PPF32-50	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	840	1383	311	279	223
PPF32-60-1	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	910	1453	311	279	231
PPF32-60	18.5	25	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	587	910	1497	311	279	231
PPF32-70	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	980	1566	355	327	262

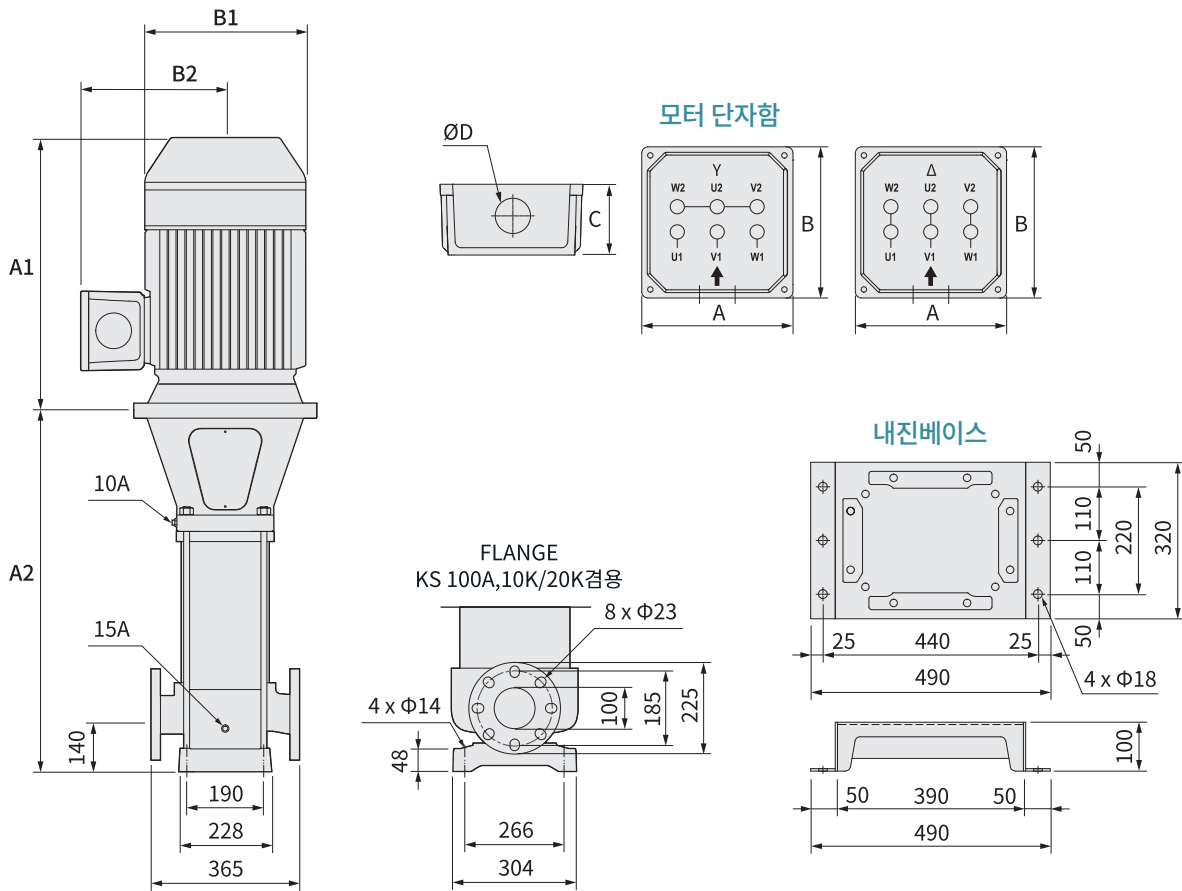




모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF45-10	5.5	7.5	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	511	938	260	195	102
PPF45-20-2	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	696	1123	260	195	117
PPF45-20-1	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	696	1123	260	195	117
PPF45-20	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	696	1239	311	279	182
PPF45-30-3	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	776	1319	311	279	228
PPF45-30-2	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	776	1319	311	279	228
PPF45-30-1	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	776	1319	311	279	228
PPF45-30	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	776	1319	311	279	228
PPF45-40-2	18.5	25	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	587	856	1443	311	279	236
PPF45-40	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	856	1442	355	327	265
PPF45-50-2	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	936	1560	355	327	296
PPF45-50	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	936	1560	355	327	296

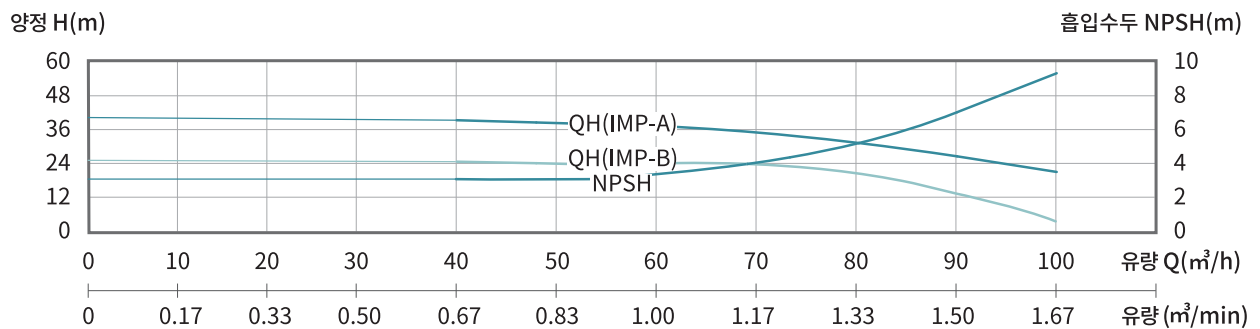
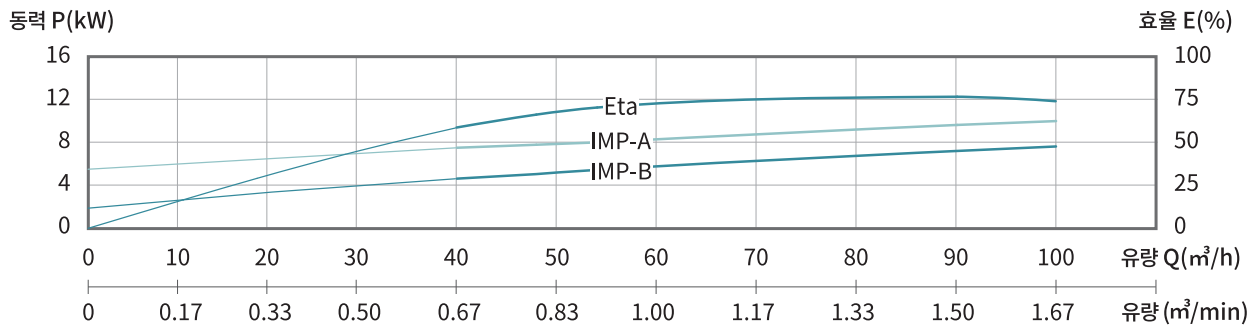
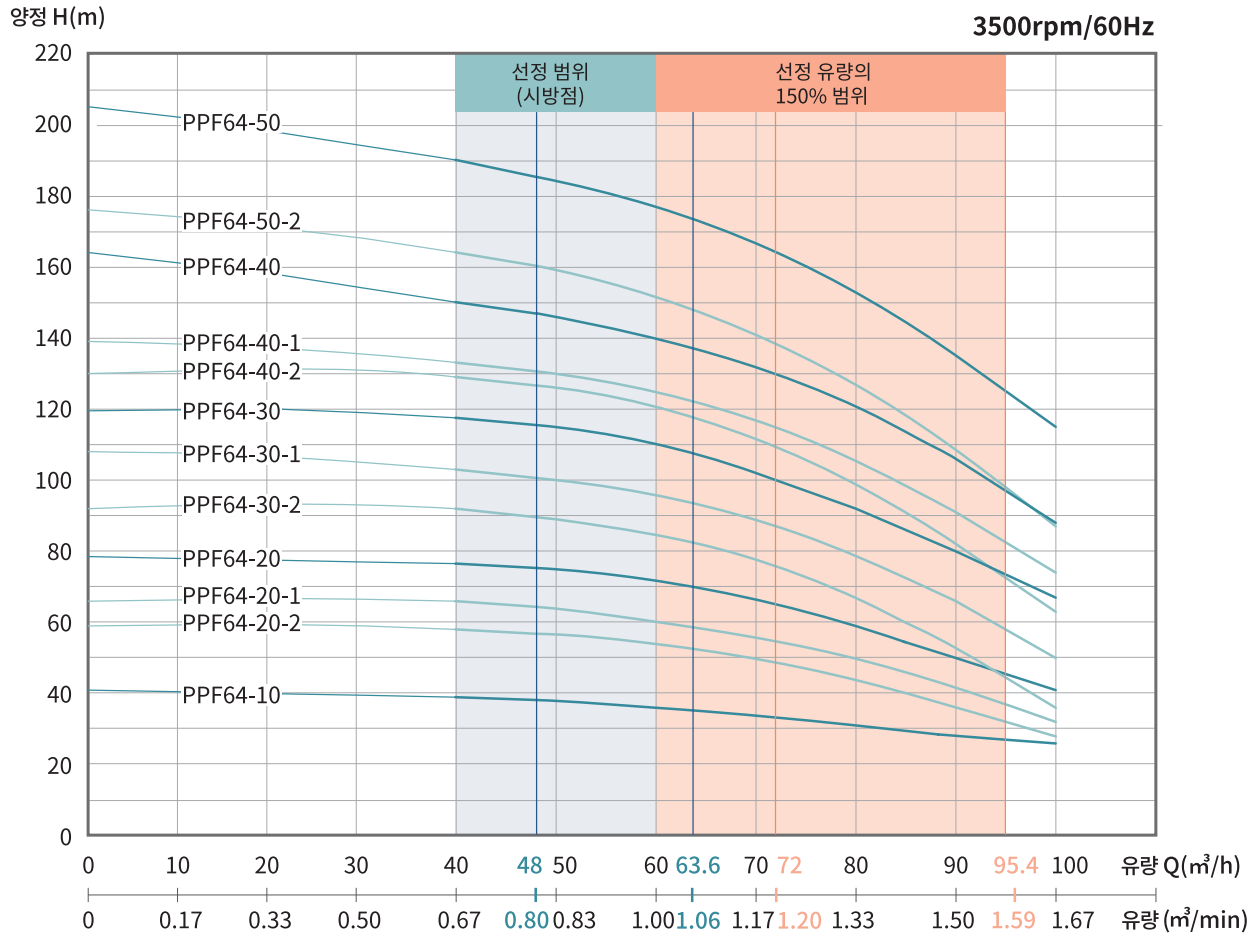
성능곡선도

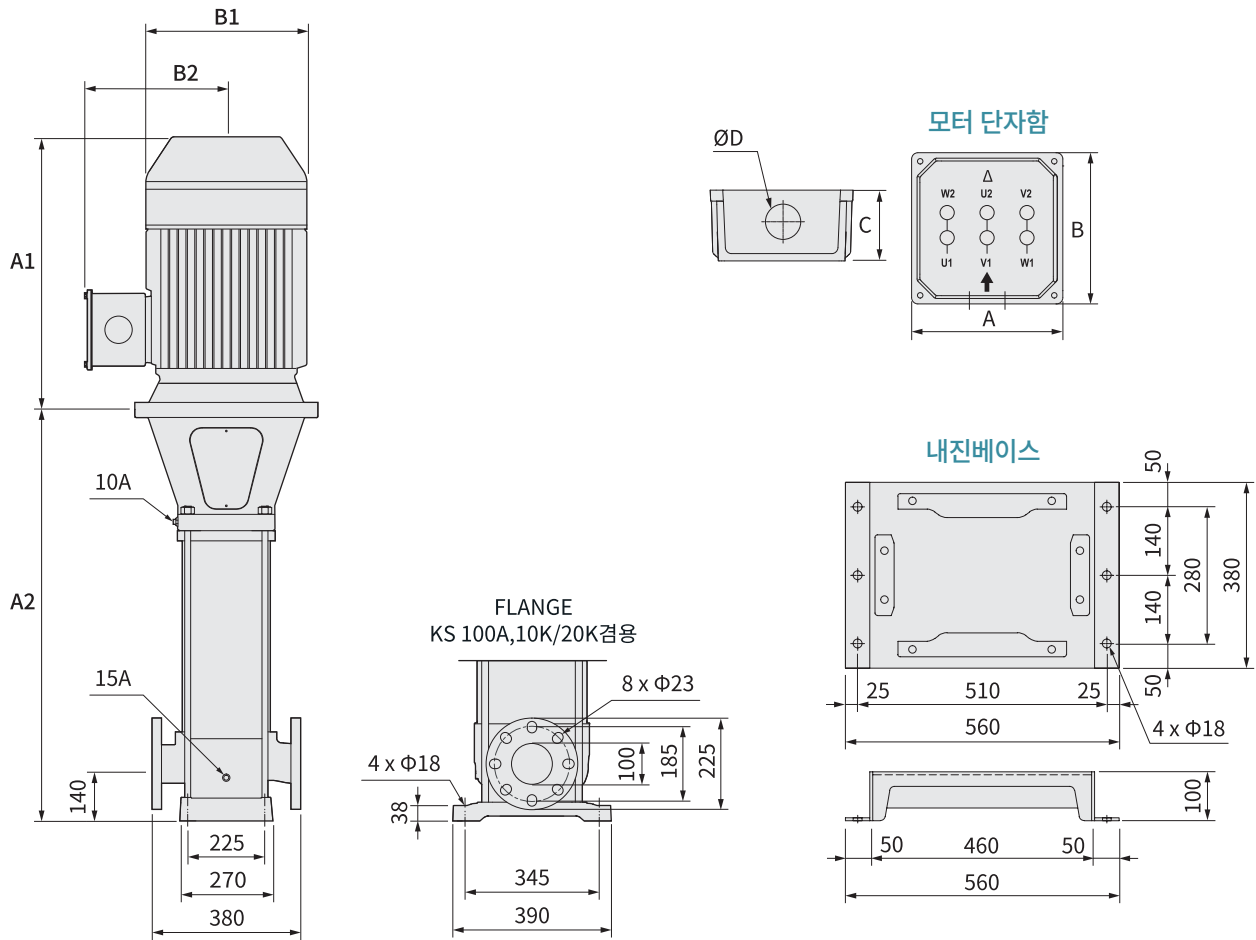


외형치수


모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF64-10	7.5	10	220 / 380	Y	6308ZZ	6208ZZ	113 x 113 x 66	25	427	619	1046	260	195	120
PPF64-20-2	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	702	1245	311	279	192
PPF64-20-1	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	702	1245	311	279	192
PPF64-20	15	2	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	702	1245	311	279	232
PPF64-30-2	18.5	25	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	587	785	1372	311	279	234
PPF64-30-1	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	785	1371	355	327	264
PPF64-30	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	785	1409	355	327	292
PPF64-40-2	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	868	1492	355	327	316
PPF64-40-1	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	868	1492	355	327	317
PPF64-40	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	868	1543	395	362	372
PPF64-50-2	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	951	1626	395	362	374
PPF64-50	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	951	1686	395	362	399

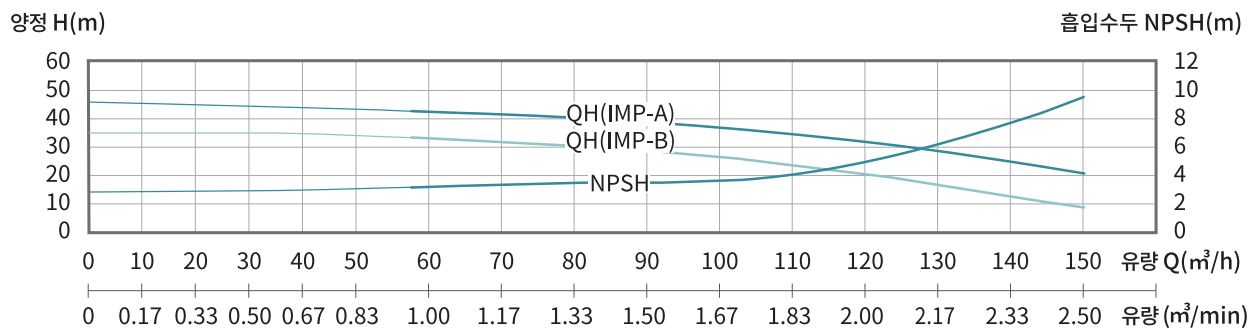
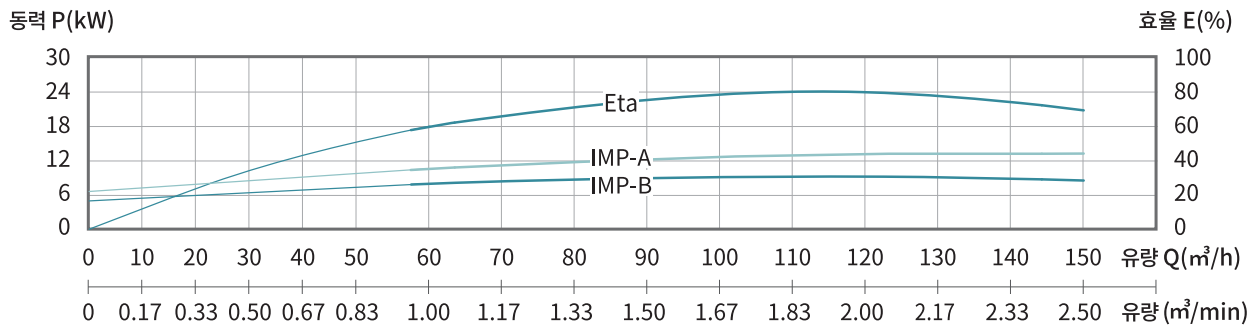
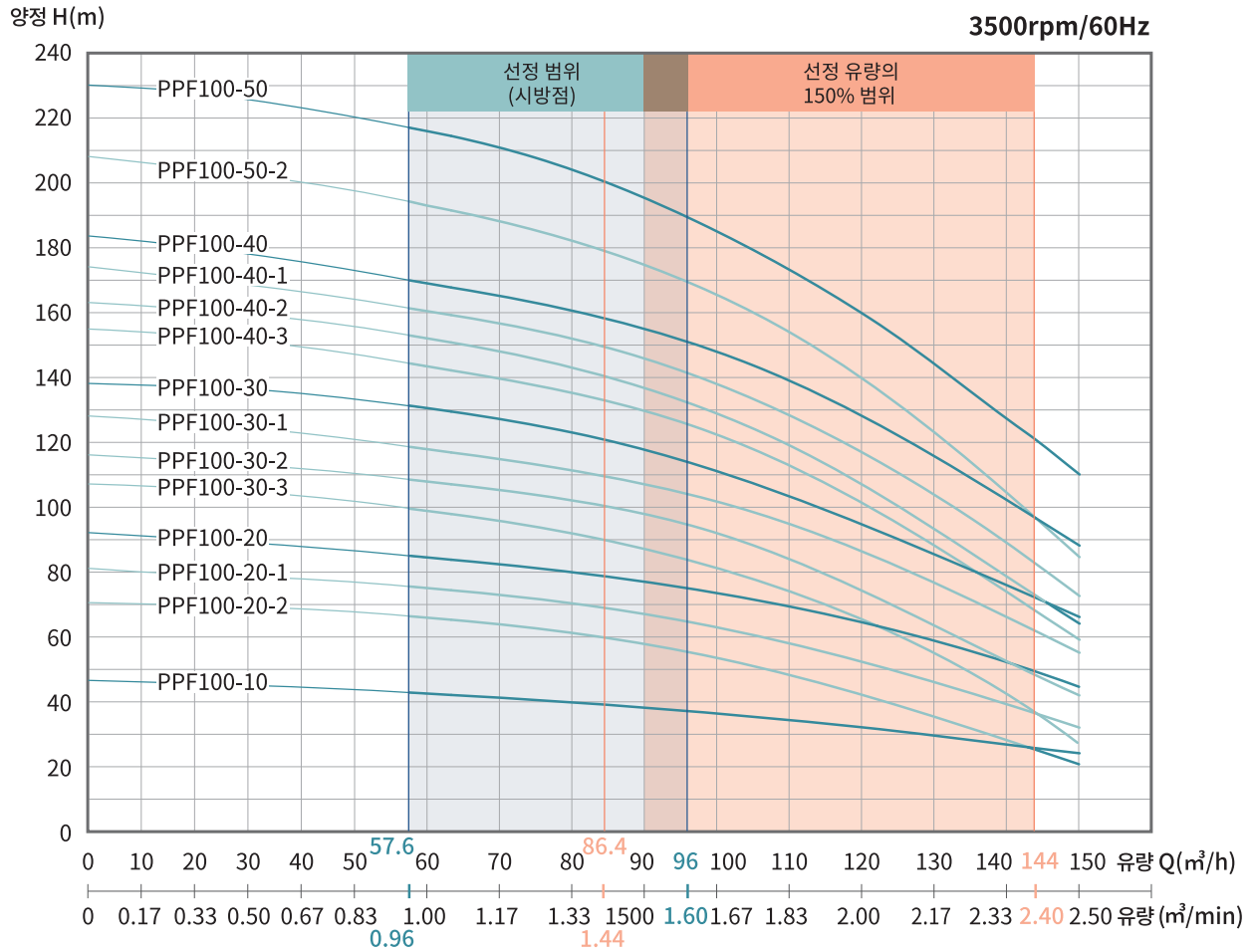
성능곡선도

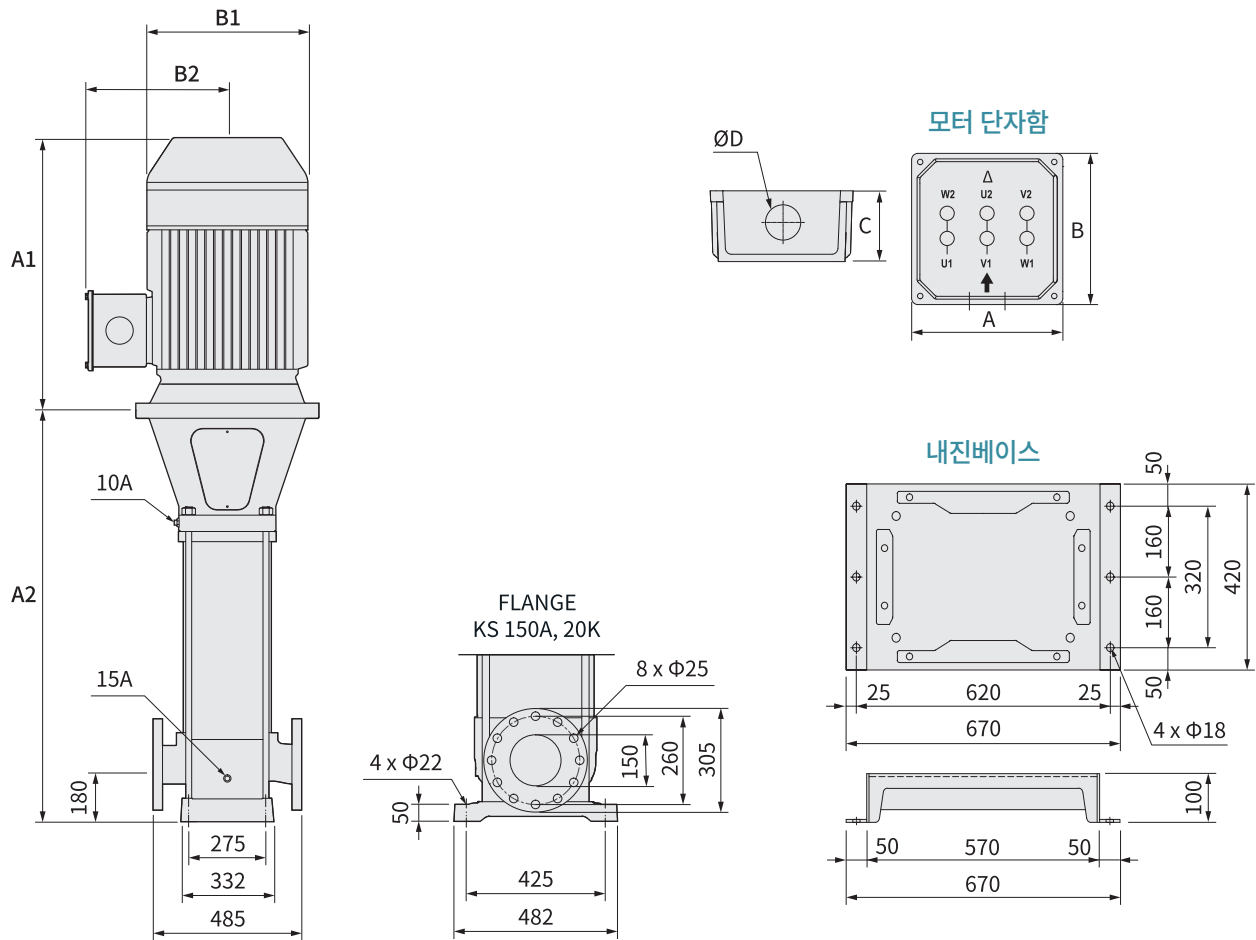


외형치수


모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF100-10	11	15	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	693	1236	311	279	199
PPF100-20-2	18.5	25	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	587	798	1385	311	279	239
PPF100-20-1	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	798	1384	355	327	268
PPF100-20	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	798	1384	355	327	270
PPF100-30-3	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	902	1526	355	327	300
PPF100-30-2	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	902	1526	355	327	303
PPF100-30-1	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	902	1526	355	327	303
PPF100-30	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	902	1577	395	362	367
PPF100-40-3	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	1037	1712	395	362	373
PPF100-40-2	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	1037	1772	395	362	398
PPF100-40-1	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	1037	1772	395	362	413
PPF100-40	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1037	1800	442	383	483
PPF100-50-2	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1142	1905	442	383	486
PPF100-50	75	100	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	775	1142	1917	481	409	576

성능곡선도



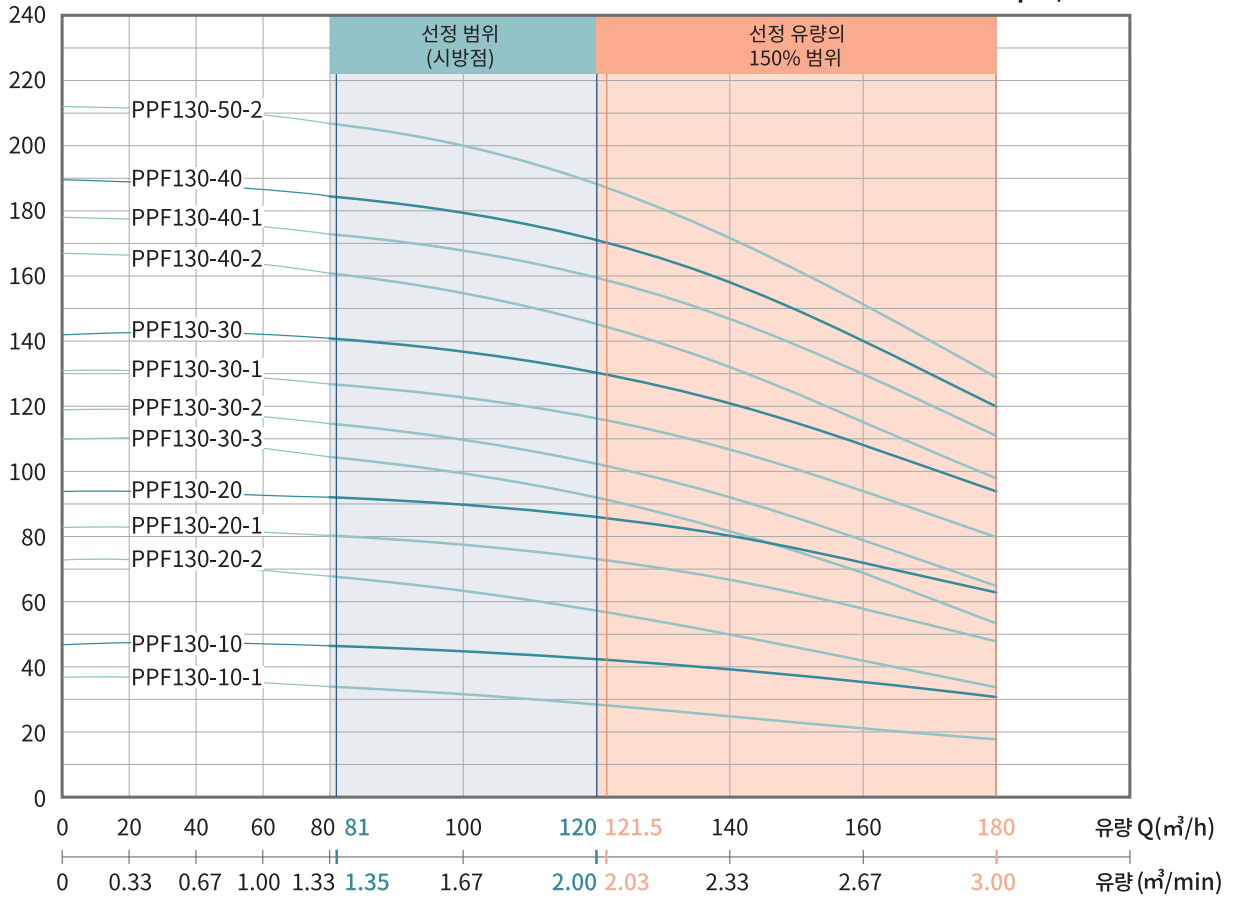


모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF130-10-1	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	787	1330	311	279	283
PPF130-10	15	20	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	543	787	1330	311	279	283
PPF130-20-2	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	909	1495	355	327	325
PPF130-20-1	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	909	1533	355	327	366
PPF130-20	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	909	1533	355	327	379
PPF130-30-3	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	1061	1736	395	362	447
PPF130-30-2	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	1061	1796	395	362	485
PPF130-30-1	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	1061	1796	395	362	498
PPF130-30	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1061	1824	442	383	581
PPF130-40-2	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1183	1946	442	383	594
PPF130-40-1	75	100	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	775	1183	1958	481	409	697
PPF130-40	75	100	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	775	1183	1958	481	409	710
PPF130-50-2	90	120	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	860	1305	2165	481	409	767

성능곡선도

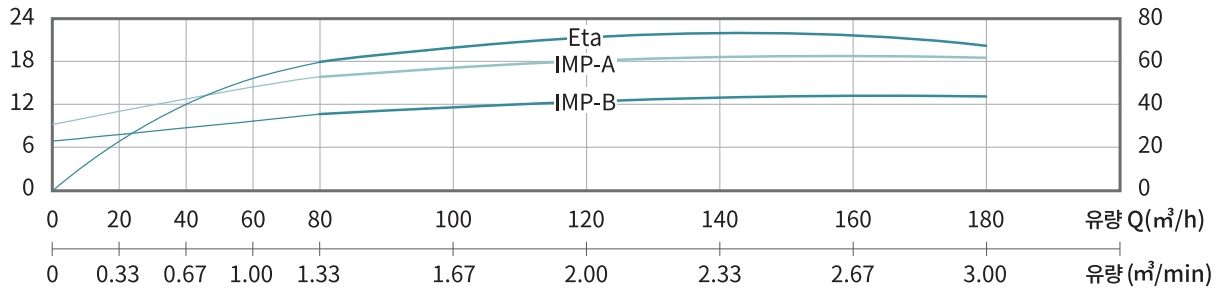
양정 H(m)

3500rpm/60Hz



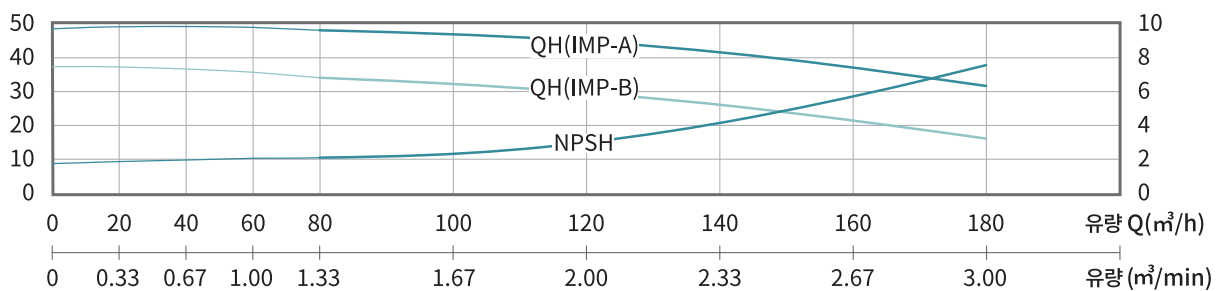
동력 P(kW)

효율 E(%)



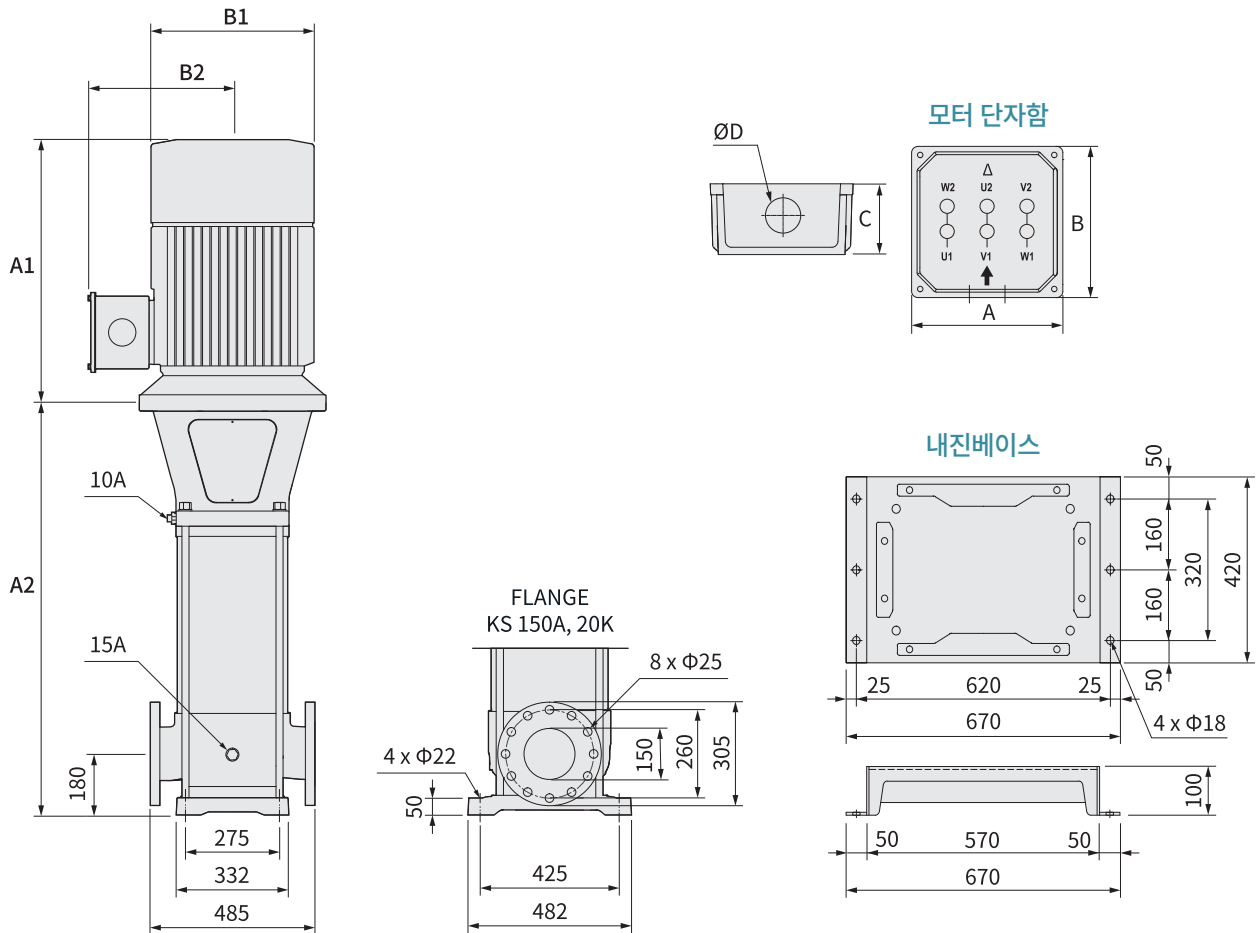
양정 H(m)

흡입수두 NPSH(m)



PPF130

수방 입형 다단펌프

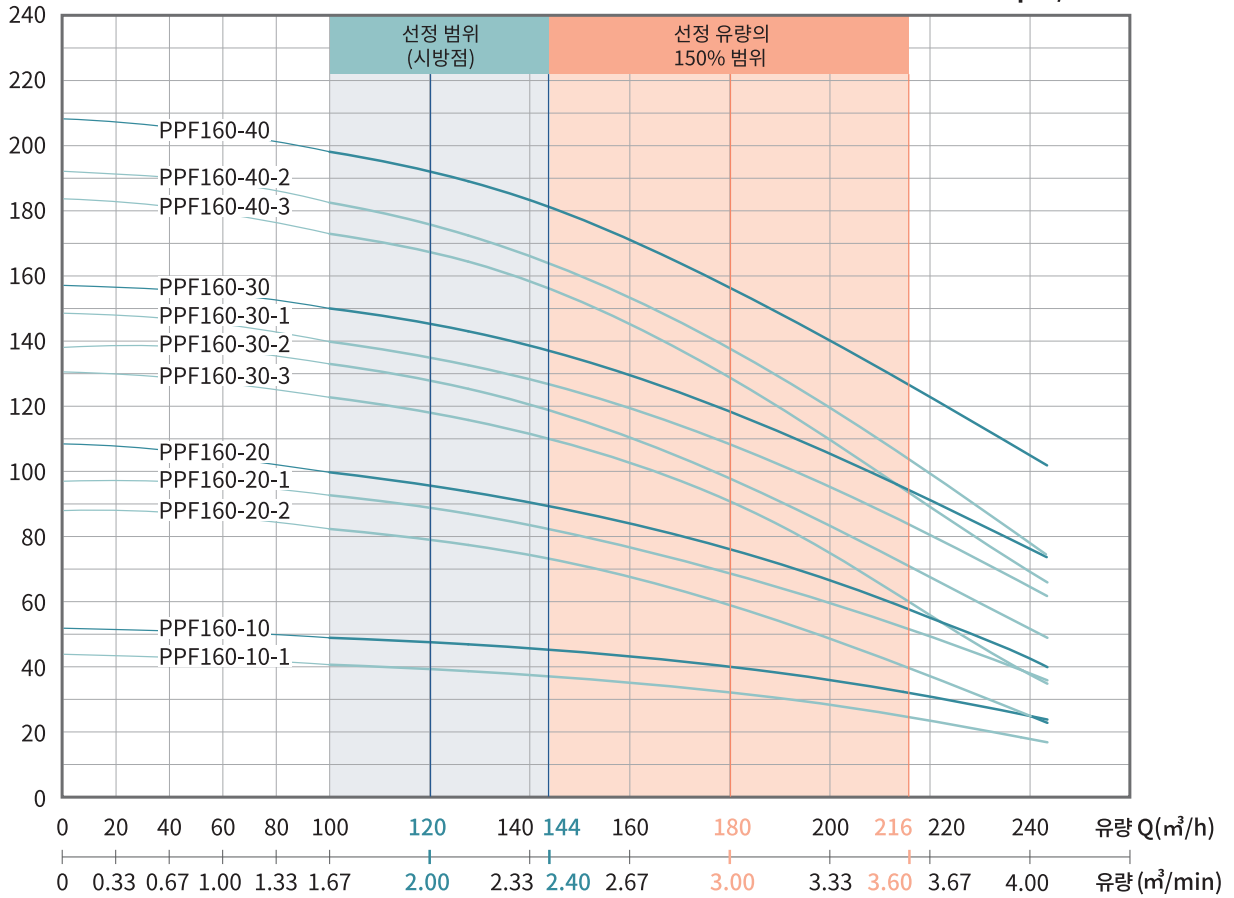


모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF160-10-1	18.5	25	380	Δ	6310ZZ	6309ZZ	160 x 170 x 120	51	587	787	1374	311	279	378
PPF160-10	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	787	1373	355	327	350
PPF160-20-2	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	939	1614	395	362	445
PPF160-20-1	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	939	1614	395	362	457
PPF160-20	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	939	1674	395	362	494
PPF160-30-3	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	1061	1796	395	362	506
PPF160-30-2	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1061	1824	442	383	588
PPF160-30-1	75	100	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	775	1061	1836	481	409	690
PPF160-30	75	100	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	775	1061	1836	481	409	690
PPF160-40-3	75	100	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	775	1183	1958	481	409	690
PPF160-40-2	90	120	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	860	1183	2043	481	409	720
PPF160-40	90	120	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	860	1183	2043	481	409	720

성능곡선도

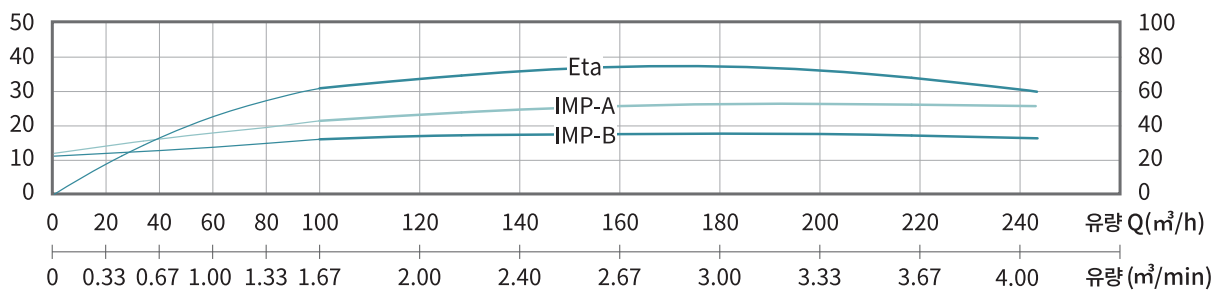
양정 H(m)

3500rpm/60Hz



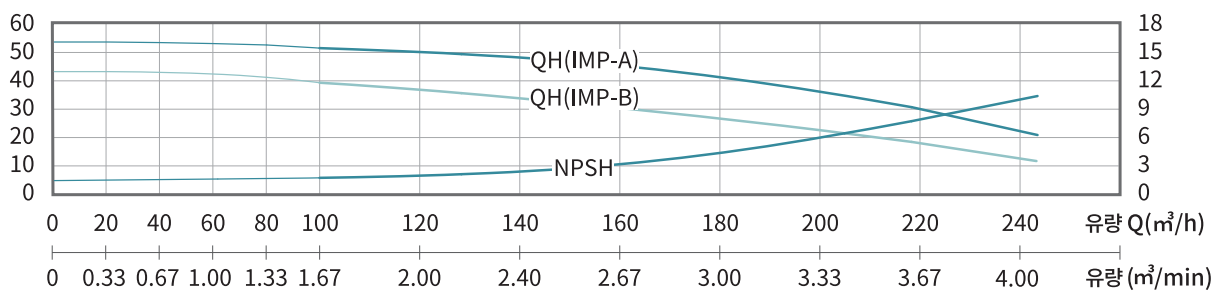
동력 P(kW)

효율 E(%)



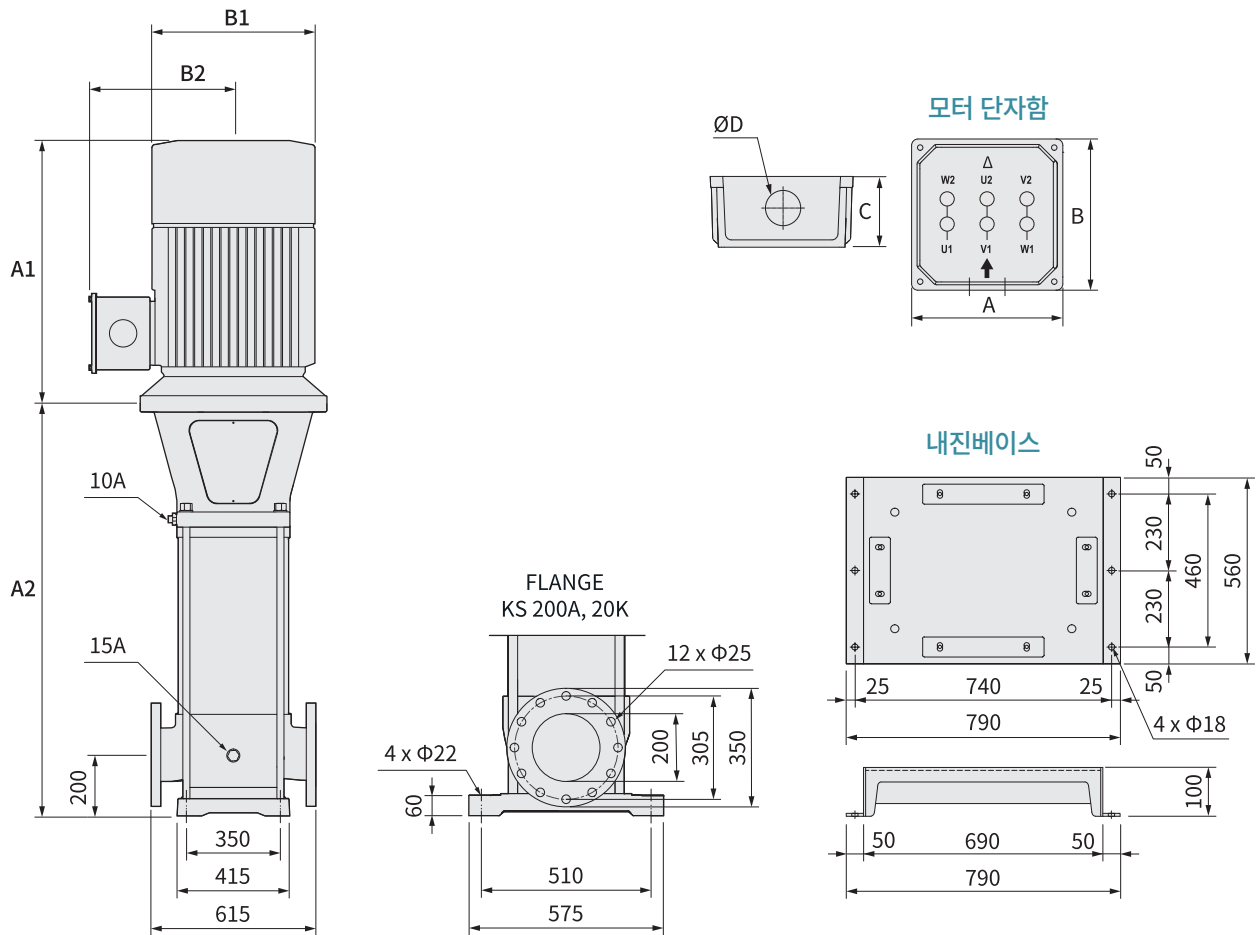
양정 H(m)

흡입수두 NPSH(m)



PPF160

수방 입형 다단펌프

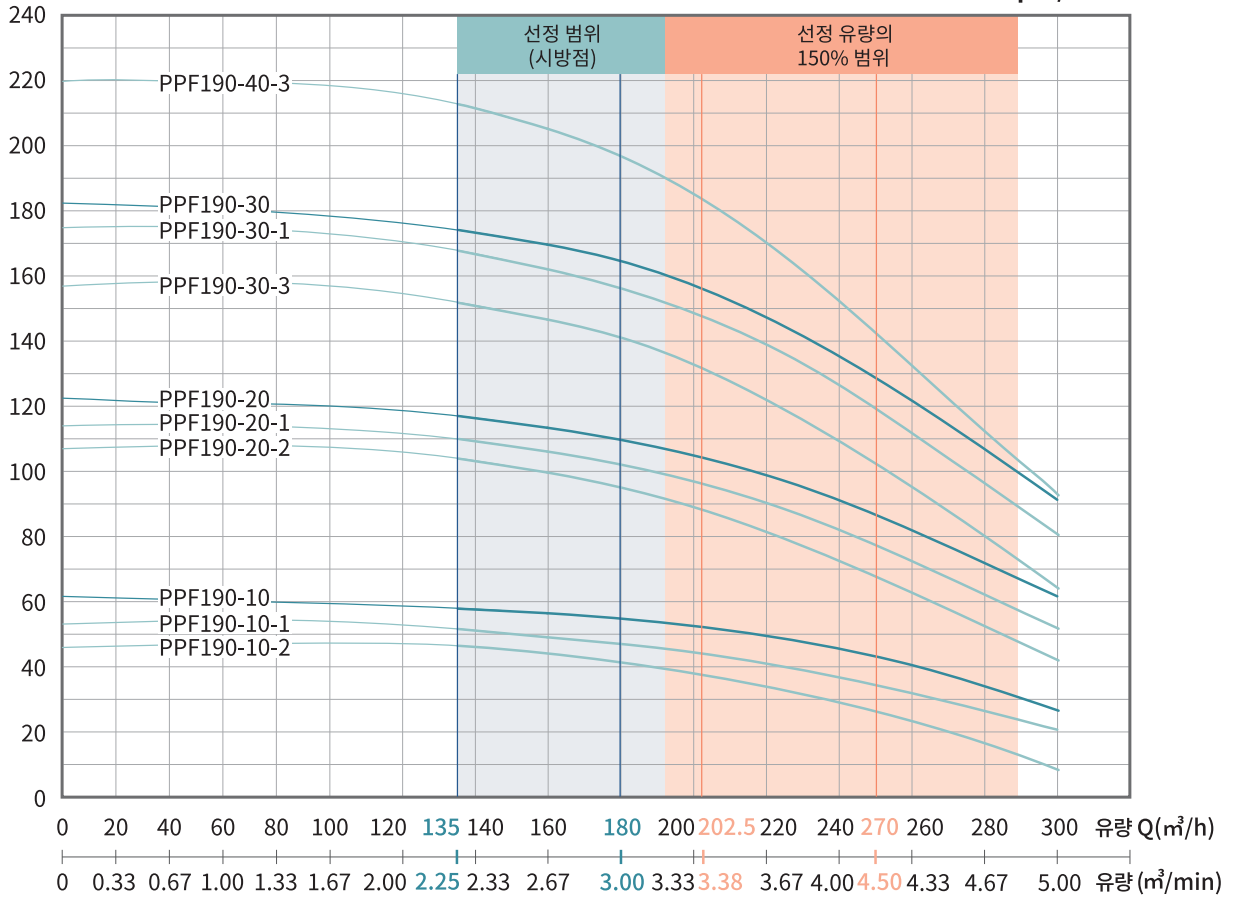


모델	동력		정격전압 (3Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ØD	A1	A2	A1+A2	B1	B2	
PPF190-10-2	22	30	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	586	861	1447	355	327	422
PPF190-10-1	30	40	380	Δ	7311B	6311ZZ	170 x 200 x 140	76	624	861	1485	355	327	450
PPF190-10	30	40	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	624	861	1485	395	362	505
PPF190-20-2	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1019	1782	442	383	600
PPF190-20-1	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1019	1782	442	383	600
PPF190-20	75	100	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	775	1019	1794	481	409	690
PPF190-30-3	90	120	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	860	1147	2007	481	409	720
PPF190-30-1	90	120	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	860	1147	2007	481	409	720
PPF190-30	110	150	380	Δ	7314B	6314ZZ	332 x 388 x 256	76	902	1147	2049	550	531	870
PPF190-40-3	110	150	380	Δ	7314B	6314ZZ	332 x 388 x 256	76	902	1275	2177	550	531	870

성능곡선도

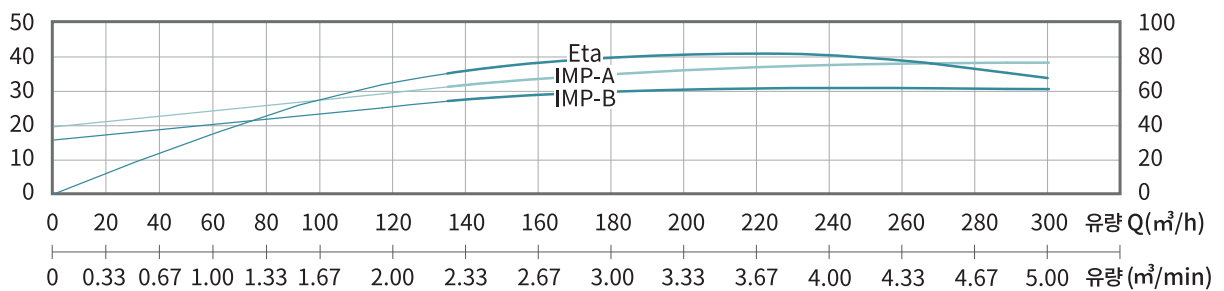
양정 H(m)

3500rpm/60Hz



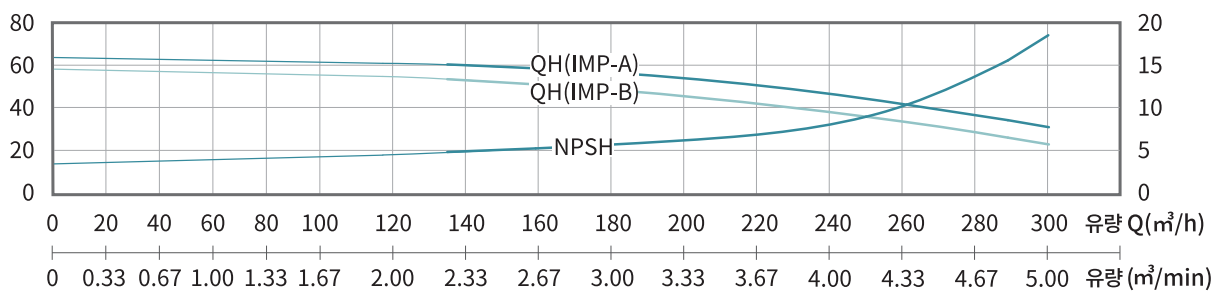
동력 P(kW)

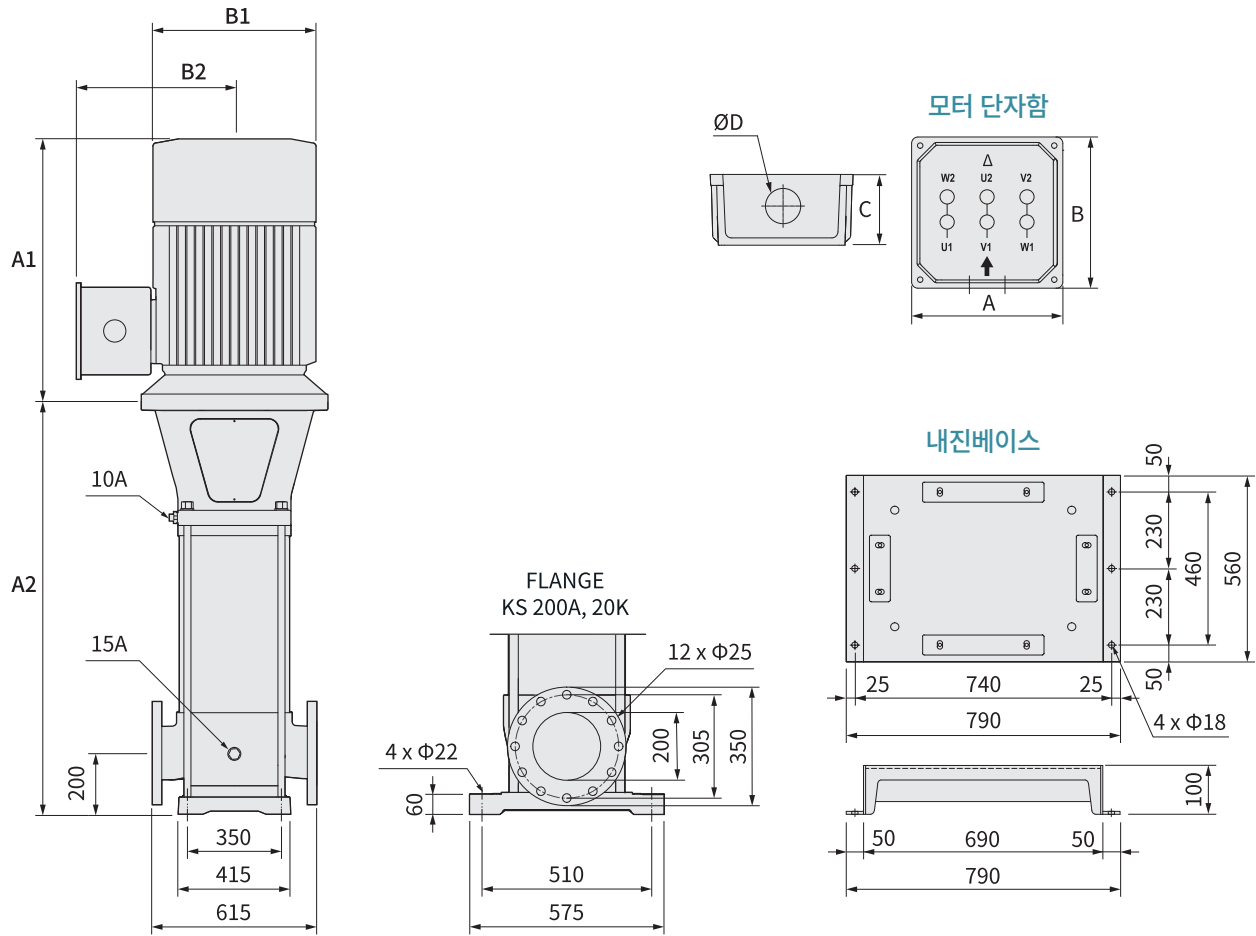
효율 E(%)



양정 H(m)

흡입수두 NPSH(m)





모델	동력		정격전압 (3 Φ Volt)	출고 결선	모터 베어링		모터 단자함(mm)		외형치수(mm)					중량 (kg)
	KW	HP			DE	NDE	A x B x H	ΦD	A1	A2	A1+A2	B1	B2	
PPF220-10-1	37	50	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	675	891	1566	395	362	530
PPF220-10	45	60	380	Δ	7312B	6312ZZ	224 x 254 x 163	76	735	891	1626	395	362	530
PPF220-20-3	55	75	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	763	1019	1782	442	383	600
PPF220-20-2	75	100	380	Δ	7313B	6313ZZ	224 x 254 x 163	76	775	1019	1794	481	409	530
PPF220-20-1	90	120	380	Δ	7314B	6314ZZ	224 x 254 x 163	76	860	1019	1879	481	409	720
PPF220-20	110	150	380	Δ	7314B	6314ZZ	332 x 388 x 256	76	902	1019	1921	550	531	870
PPF220-30-3	110	150	380	Δ	7314B	6314ZZ	332 x 388 x 256	76	902	1147	2049	550	531	870

