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KOSHA18001



HYOSUNG GOODSPRINGS
PUMPS & WATER

입형다단펌프

EVM Series

Stainless Steel Vertical Multi Stage Pump



효성굿스프링스(주)

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EVM Series

신개념 Stainless Pump 탄생! New Stainless Pump!

최상의 설계 방식과 표준화된 부품으로 최고의 성능을 발휘하는 입형 다단 펌프의 성능 및 구조를 개선하여 신개념 EVM Series로 발전시켰으며 전세계 80여개국에서 품질의 우수성을 인정 받고 있습니다.

With the best design and standardized parts, we have upgraded the performance and structure of the already-highly functioning vertical multistage pump to produce the new EVM series of which quality has been acknowledged by over 80 countries around the world.



EVM Series의 장점 Strengths of the EVM Series

- **공간절약 설계** : 입형구조이므로 동일 성능의 횡형 다단펌프와 비교하여 설치면적이 약 1/4로 최소화됩니다.
- **-15°C~120°C까지 넓은 온도 범위** : 액체의 사용 온도 범위가 넓어 다양한 용도로 사용할 수 있습니다.
- **에너지 절약** : 첨단 프레스 가공기술로 제작되어 높은 효율과 에너지 절감효과를 보장합니다.
또한 고효율 전동기 장착으로 에너지 절감 효과를 높일 수 있습니다.
- **편리한 유지관리** : 메카니칼 씰 교환시 펌프의 분해가 필요 없으며 Top-Pull-Out 구조로 배관의 해체없이 펌프의 분해/조립이 가능합니다.
- **용이한 배관시공** : 흡입/토출 배관은 인라인 타입으로 배관 시공이 용이하며 전기종 Round Flange 적용으로 배관응력 작용에 의한 누수를 방지하였습니다.
- **인버터 운전 (option)** : 인버터의 회전수 제어를 통해 펌프의 유량과 양정을 사용환경에 맞게 변화시켜 넓은 범위에서 사용 가능하며 에너지 절약을 극대화 할 수 있습니다.
- **e-Plus 고효율 기저재**
- **Space Saving Design** : Compared to the horizontal multistage pump, the vertical multistage pump takes up only one fourth of the installation space.
- **Wide Operating Temperature Range of -15°C~120°C** : Wide range of temperature allows to use in various applications.
- **Energy Saving** : Manufactured with advanced press processing technology, the EVM series ensures high efficiency and saves energy. Also, the highly efficient motor saves energy further.
- **Easy Maintenance** : You don't need to disassemble the motor to replace the mechanical seal. The top-pull-out structure enables the disassembly/assembly of the pump without disassembling the pipe.
- **Easy Piping** : The suction/discharge pipe is the inline type for easy installation. The round flange is applied to all models to prevent leakage caused by piping stress.
- **Inverter Operation (Option)** : Control of inverter's revolution makes it possible to adjust flow and fluid head to environments for wide applications and maximum energy saving.
- **Highly Efficient Equipment**

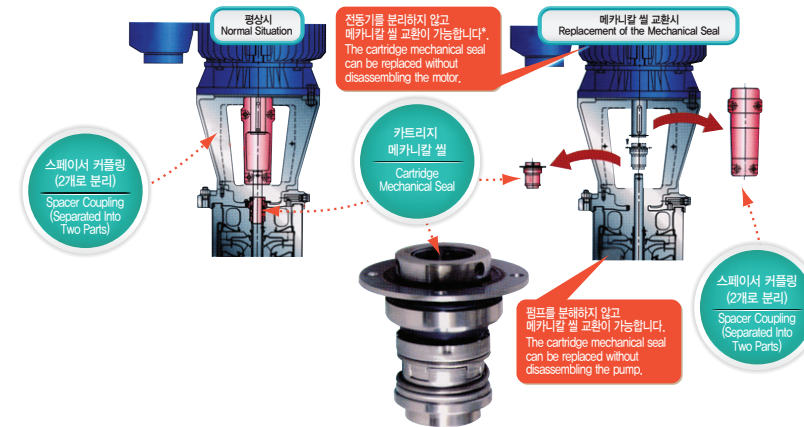
01

Step One

스페이서 커플링 및 카트리지 메카니칼 씰 채용 Spacer Coupling and Cartridge Mechanical Seal

사용 기준에 따라 무거운 전동기를 분리하지 않고 메카니칼 씰 교환이 가능한 구조로 설계되어 최적의 효율성을 발휘하며, 펌프부를 분해 하지 않고 메카니칼 씰 유지보수가 가능한 'Cartridge'를 장착하고 있습니다.

Depending on the model, you can replace the mechanical seal without disassembling the heavy motor so that the EVM pump delivers optimal efficiency. Also, it is equipped with the cartridge which enables the maintenance of the mechanical seals without disassembling the pump.



02

Step Two

신개발 하이드로 부품 채용 Newly Developed Hydro Parts

독자적인 설계해석과 기술력을 통한 Stainless Pressing Hydro 부품(회전차·중간 케이싱 등)을 채용함으로써 고효율과 고성능을 실현하였습니다.

With proprietary design analysis and technology, stainless pressing hydro parts (impeller, middle casing, etc) are employed to realize high efficiency and high performance.



| 신형상 이차원 회전차 |
| New 2D Impeller |

| 삼차원 회전차 (레이저 용접형) |
| 3D Impeller (Laser Welding) |

| 가이드베인 방식 중간 케이싱 |
| Guide Vane-Type Middle Casing |

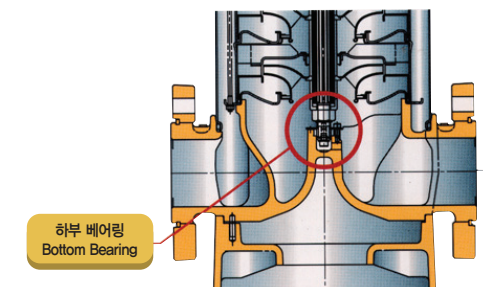
03

Step Three

하부 베어링 위치 변경 Changed Position of the Bottom Bearing

EVM45 이상의 기종은 펌프 하부 베어링을 중간 케이싱 내에서 견고한 하부 케이싱 내로 변경함으로써 기계적 신뢰성을 더욱 향상시켰습니다.

For the EVM45 or higher models, the bottom bearing is moved from the middle casing to the rugged bottom casing for better mechanical reliability.



용도 Application



호칭 Model Designation

EVM3209-3

펌프 모델명 EVM Model Name	대표 유량 [32m³/h] 32 Main Flow [32m³/h]	회전차 수량 [9개] 09 Number of Impellers [9 Each]	Reduced 회전차 적용수량 [3개] 3 Number of Reduced Impellers [3 Each]
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표준 사양 Standard Specification

항목 Category		EVM	EVML	
액질 Liquid	취급액 Applicable Liquid	청수, 냉난방수, 응축수, 글리콜혼합수, 질석액, 세정액 등 점도가 높지 않고 마모 물질이 포함되지 않은 액체 Clean Water, Cooling/Heating Water, Condensate Water, Glycol-Mixed Water, Coolant, Cleaning Solution and Other Liquid Which has Low Viscosity and does not contain corrosive matters		
	온도 Temperature	-15~120°C		
최대허용압력 Maximum Allowable Pressure	[MPa]	1.6 / 2.5 / 3.0		
	[BAR]	16 / 25 / 30		
구조 Structure	회전차 Impeller	클로우즈 임펠러 Closed Type Impeller		
	축봉타입 Shaft Seal	메카니칼 씰 Mechanical Seal		
	베어링 Bearing	밀봉 볼 베어링 Sealed Ball Bearing		
재질 Material	케이싱 Casing	하부 Bottom	STS304 (EVM18 이하) (EVM18 or Lower) / STS316 (EVM18 이하) (EVM18 or Lower)	
		중간 Middle	SSC13 (EVM32 이상) (EVM32 or Higher) / SSC14 (EVM32 이상) (EVM32 or Higher)	
		바깥 Exterior	SSC13 (EVM45 이상) (EVM45 or Higher) / SSC14 (EVM45 이상) (EVM45 or Higher)	
	회전차 Impeller	STS304 / STS316		
	축 Shaft	STS304 / STS316		
	축 슬리브 Shaft Sleeve	STS304 / STS316		
	라이너링 Liner Ring	EPDM / STS304 / EPDM / STS316		
	O-링 O-Ring	EPDM / FPM		
	전동기 Motor	공급전원 Power Supply	3-Phase, 380V (Option : 220V, 440V), 60Hz (Option : 50Hz)	
		절연등급 Insulation Class	F Class	
보호등급 Protection Class		IP55 (Option : IP65)		
설치장소 Installation	주위온도 40°C 이하, 표고 1000m 이하, 부식성 및 폭발성 가스 및 증기가 없는 곳 Ambient Temperature: 40°C or less; Altitude: 1000m or Less; Place without Corrosive and Explosive Gas and Vapor			

※ STS304, STS316 : Stainless Steel

인버터 부착형 입형다단펌프 EVM-V Inverter Type EVM Pump EVM-V



주요기능

- 128X64 Graphic의 LCD Display : 한글 LCD 화면
- 연동운전 : 5대의 인버터를 통신으로 연결 운전
- 일정압/일정온도 제어, 차압/차온 제어
- 순차 운전
- 정전 후 자동 운전 복구
- 주 Pump의 교번(교대)운전
- 고장 Pump Skip
- 갈수 보호운전
- 통신기능(Optional)
- 자가 진단

Major Features

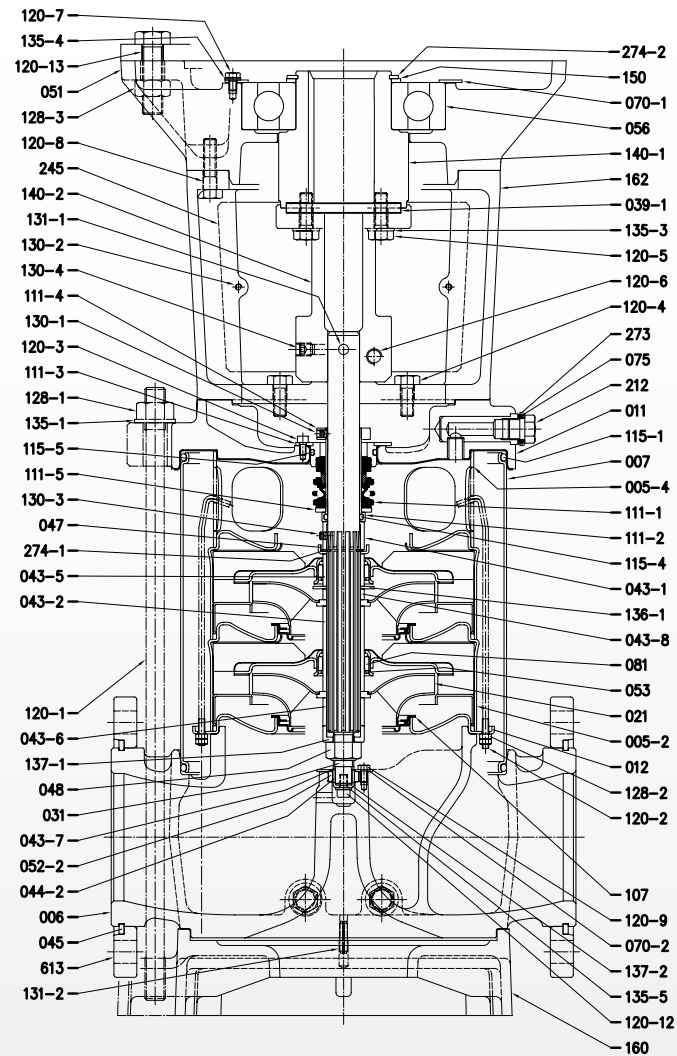
- 128X64 LCD Display: Korean LCD
- Interoperation: Interoperation of 5 Inverters via Communication
- Consistent Pressure/Temperature Control, Differential Pressure/Temperature Control
- Sequential Operation
- Automatic Recovery After Power Failure
- Rotational Operation of the Main Pump
- Skipping of the Defective Pump
- Water Shortage Protection
- Communication (Option)
- Self Diagnosis

제어항목 Control Items		내용 Description	Remark
입력사항 Input	입력전압 Input Voltage	3상 342V ~ 528V (3-Phase 342V ~ 528V)	
	전압변동범위 Voltage Fluctuation Range	-15 ~ +10% (342V ~ 528V)	
	주파수변동범위 Frequency Fluctuation Range	-5 ~ +5% (47 ~ 63Hz)	
사용 환경 Operating Environment	온도 Temperature	섭씨 -10°C ~ +40°C	
	상대습도 Relative Humidity	0 ~ 90%	
	진동 Vibration	"0.6G (10~60Hz),"	
콘트롤사양 Control Specification	콘트롤전원 Control Power	SPWM (캐리어주파수 2~10Hz) (SPWM (Carrier Frequency 2~10Hz))	
	주파수해상도 Frequency Resolution	0.01Hz	
	토크특성 Torque Property	"자동, 스타트 150%(1.0Hz)" ("Auto, Start 150%(1.0Hz) ")	
	과부하 Overload	정격전류에 120%에서 1분간 (120% of Rated Current, One Minute)	
	가속/감속 시간 Acceleration/Deceleration Time	0.1 ~ 3600s / 개별 가속속 4가지 조합 가능 (0.1 ~ 3600s / Respective Four Acceleration/Deceleration Combinations)	
	V/F RATIO설정 V/F Ratio Setting	사용자 설정 가능 (User Configuration)	
운전사양 Operating Specification	스톨 방지 레벨 Stall Prevention Level	"20~150%, 설정가능" ("20 ~ 150%, Configurable")	
	키패드 Keypad	키패드 설정 (Keypad Setting)	
	주파수설정 Frequency Setting	0 ~ 5V / 0 ~ 10V / 4 ~ 20mA / 0 ~ 20mA 주파수 상한 / 하한 설정 (Upper Limit/Lower Limit) 3개의 SKIP 주파수 설정 (3 Skip Frequencies)	
보호기능 Protection	다기능 출력 Multifunctional Output	운전 상태 모니터 / 오류정보 표시 및 경고 (Operating Status Monitor/ Error Display and Warning)	
	과전류 Overcurrent	정격 전류의 200% (200% of Rated Current)	
	과부하 Overload	정격 전류의 120%(Delay:1분) (120% of Rated Current (Delay: 1minute))	
	모터 과부하 Motor Overload	Thermal Overload Relay	
	과전압 Overvoltage	DC-BUS 330~410V / DC-BUS 660~820V	
	순시 정전 Instantaneous Interruption	Speed Search에 의한 인버터 재가동 (0~2초) Restart of the Inverter by Speed Search (0 ~ 2 Seconds)	
기타 제어 Other Control	과열 Overheating	써미스터 보호 방식 (Thermistor Protection)	
	감속 정지 / 자가-정지 / DC브레이크 / Carrier (Deceleration Stop/Self-Stop / DC Brake/ Carrier)	주파수 조절 가능(20KHz) (Frequency Control (20KHz))	
통신 방식 Communication	RS-485		

조립 단면도 Sectional Drawing

60Hz (3600RPM)

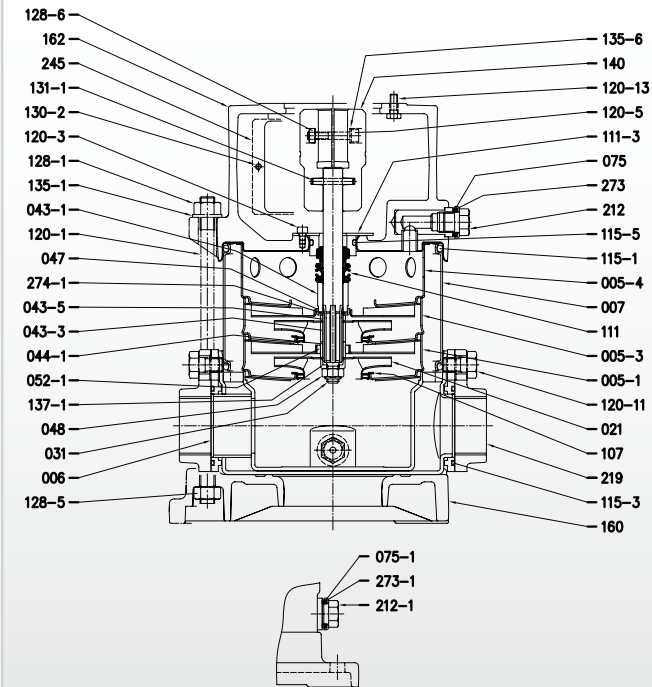
Pump with single ball bearing
[EVM45/64]



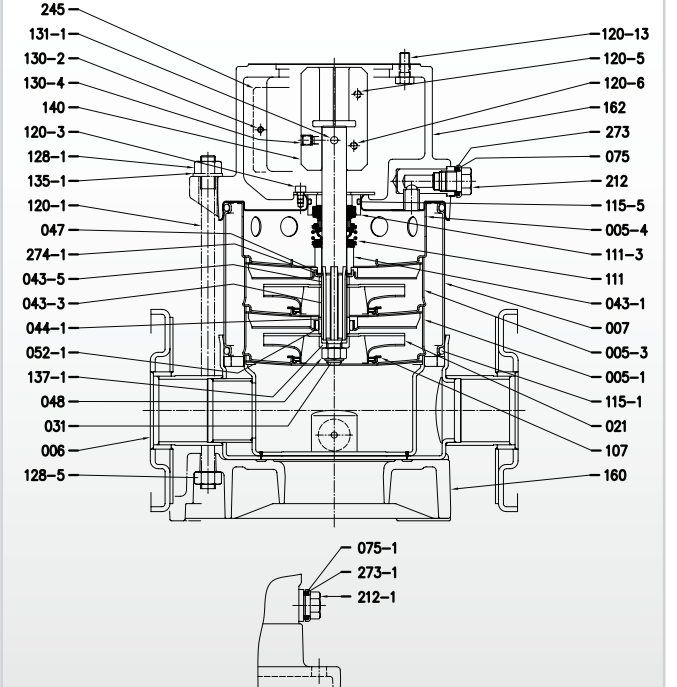
NO.	Part Name	Material	
		EVM	EVML
005-1	Suction Casing	STS304	STS316
005-2	Intermediate Casing	STS304	STS316
005-3	Intermediate Casing Bearing	STS304	STS316
005-4	Discharge Casing	STS304	STS316
006	Bottom Casing	STS304/SSC13	STS316/SSC14
007	Outer Casing	STS316/STS304	STS316
011	Casing Cover	Cast Iron/STS304	Cast Iron/STS316
012	Suction Cover	STS304	STS316
021	Impeller	STS304	STS316
031	Shaft	STS316	
039-1	Key	Carbon Steel	
043-1	Shaft Sleeve (Mechanical seal)	STS304	STS316
043-2	Shaft Sleeve (Intermediate)	STS304	STS316
043-3	Shaft Sleeve (Bearing)	STS304	STS316
043-4	Shaft Sleeve (Adjustment)	STS304	STS316
043-5	Shaft Sleeve (Last Stage)	STS304	STS316
043-6	Shaft Sleeve (Adjustment)	STS304	STS316
043-7	Shaft Sleeve (Bottom Bearing)	STS304	STS316
043-8	Shaft Sleeve (Discharge/Lower)	STS304	STS316
044-1	Shaft Sleeve Bearing	Tungsten Carbide	
044-2	Bearing Sleeve	Tungsten Carbide	
045	Flange Holder	STS420	
047	Ring Holder	STS304	STS316
048	Impeller Nut	A2-70 UNI 7323	A4-70 UNI 7323
051	Motor Adapter	Cast Iron EN-GJL-200 EN 1561	
052-1	Bearing	Tungsten Carbide	
052-2	Bearing	Tungsten Carbide	
053	Bush Holder	STS304	STS316
066	Ball Bearing	-	
070-1	Ring for Bearing	STS304	
070-2	Ring for Bearing	STS304	STS316
081	Bush	PTFE	
107	Liner Ring	EPDM/STS304(03~18), PTFE/STS316(32~45)	PTFE / STS316
111-1	Mechanical Seal	Silicon Carbide / Carbon / FPM	
111-2	Mechanical Seal Cartridge	STS304	STS316
111-3	Mechanical Seal Seal	STS304	STS316
111-4	Seal Holder	Brass OT 58 UNI 5705	STS316
111-5	Adjusting Ring	STS304	STS316
115-1	O-Ring (Outer Casing)	EPDM	FPM
115-2	O-Ring (Intermediate Casing)	EPDM	FPM
115-4	O-Ring (Cartridge Sleeve)	EPDM	FPM
115-5	O-Ring (Seal Cover)	EPDM	FPM
120	Tie-rod	Zincate Steel 8.8 Strength Class 898/1	
120-3	Screw (Mechanical Seal)	A2-70 UNI 7323	
120-4	Screw (Casing Cover)	Zincate Steel 8.8 Strength Class 898/1	
120-5	Screw for Coupling(Pump)	Zincate Steel 8.8 Strength Class 898/1	
120-6	Screw for Coupling(Motor)	Zincate Steel 8.8 Strength Class 898/1	
120-7	Screw (Coupling Bearing)	Zincate Steel 8.8 Strength Class 898/1	
120-9	Screw (Bearing Sleeve)	STS304	STS316
120-12	Screw (Shaft Spacer)	STS304	STS316
120-13	Screw (Motor Adapter)	Zincate Steel 8.8 Strength Class 898/1	
130-2	Screw for Coupling Guard	A2-70 UNI 7323	
131-1	Pin for Shaft	Carbon Steel	
136	Bearing Washer	Carbon Steel	
137-1	Impeller Spacer	STS304	STS316
137-2	Shaft Spacer	STS304	STS316
140	Coupling	Brass OT 58 UNI 5705	
140-1	Motor Coupling	Carbon Steel	
140-2	Coupling (Pump Side)	Carbon Steel	
150	Spacer	Carbon Steel	
160	Base	Cast Iron EN-GJL-200 EN 1561	
162	Motor Bracket	Cast Iron EN-GJL-200 EN 1561	
212	Plug	STS304	STS316
245	Coupling Guard	STS304	
274-1	C-Type Snap Ring (M/Seal)	STS304	STS316
274-2	C-Type Snap Ring (Coupling)	Carbon Steel TC80	
274-3	C-Type Snap Ring (Bracket)	Carbon Steel TC80	
613	Flange	-	

60Hz (3600RPM)

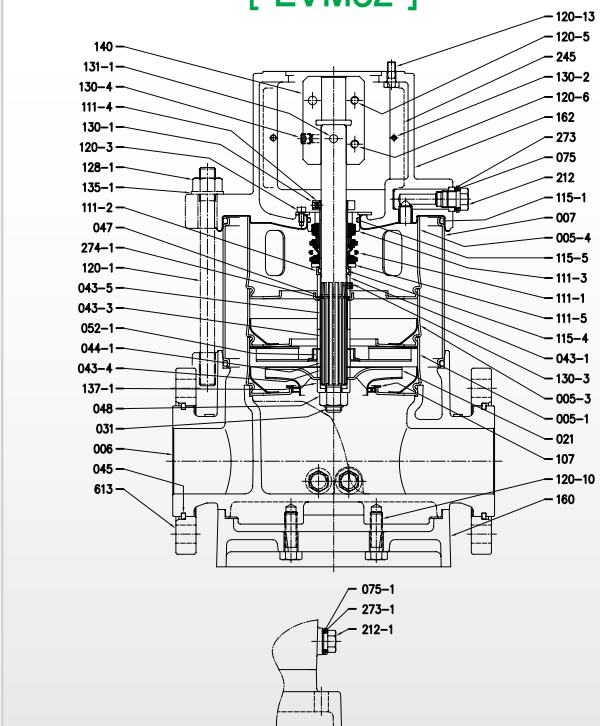
Pump without ball bearing
[EVM03/05/10]



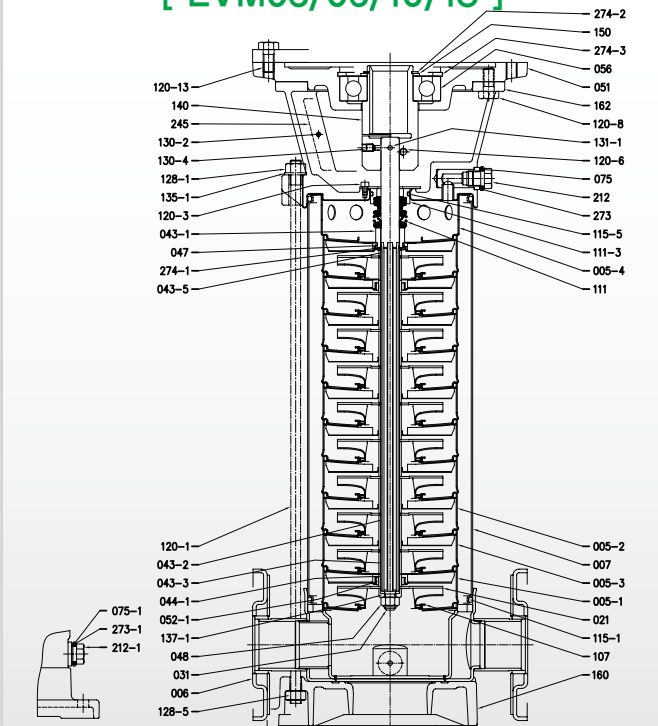
Pump without ball bearing
[EVM18]



Pump without ball bearing
[EVM32]



Pump with single ball bearing
[EVM03/05/10/18]

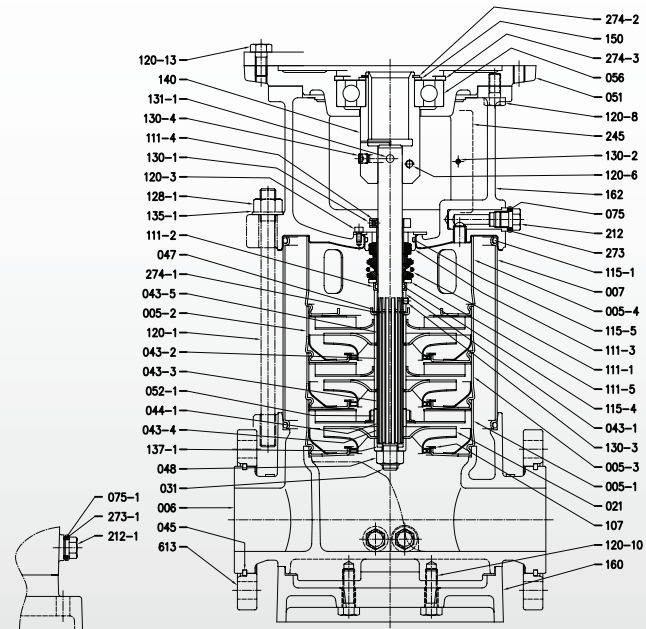


조립 단면도 Sectional Drawing

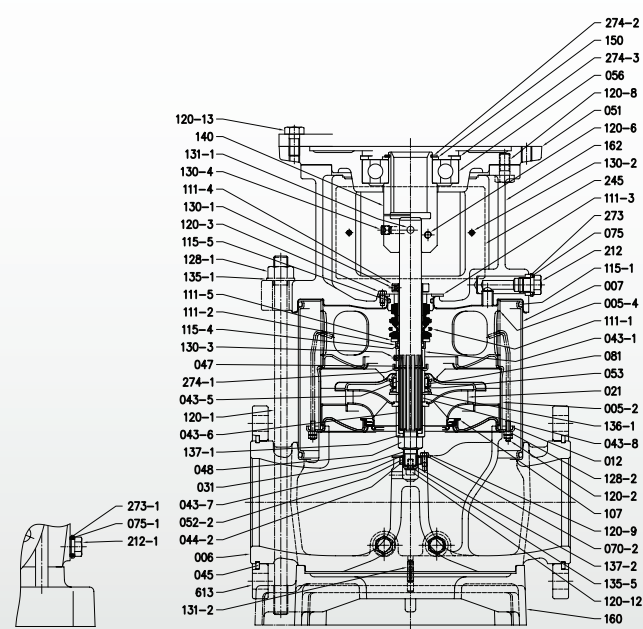
60Hz (3600RPM)

50Hz (2900RPM)

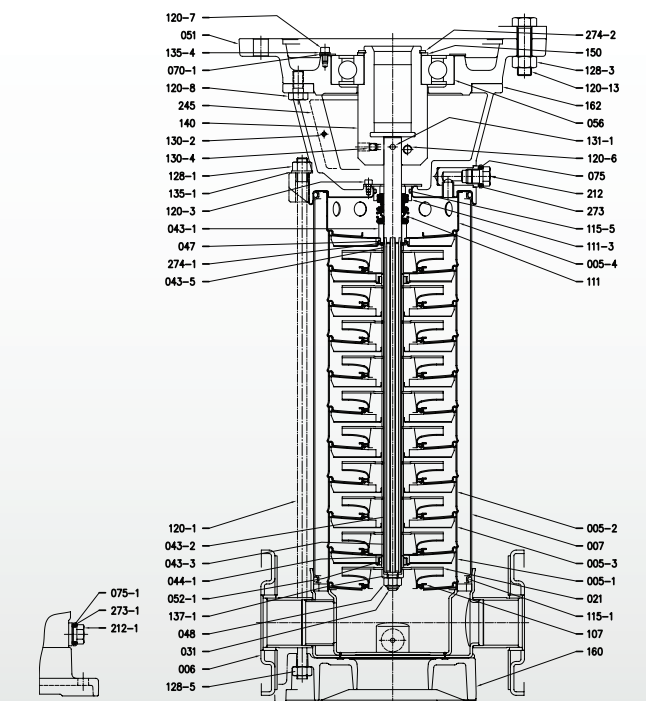
Pump with single ball bearing
[EVM32]



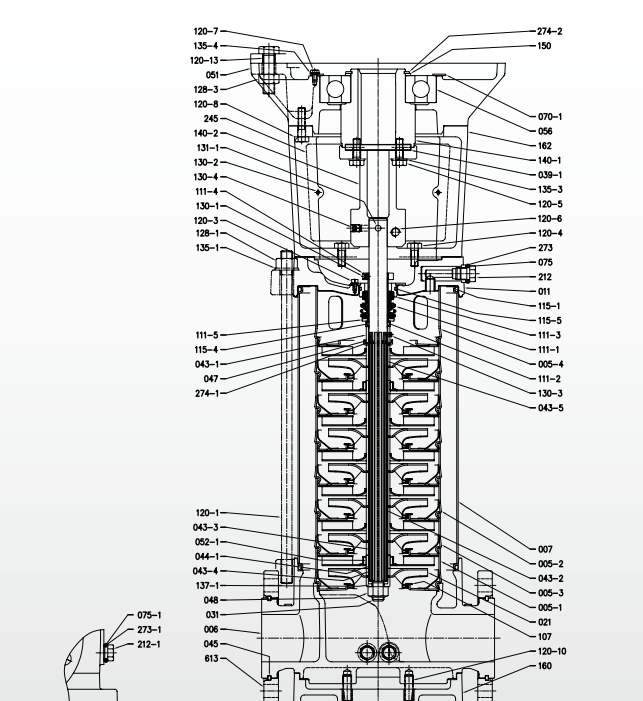
Pump with single ball bearing
[EVM45/64]



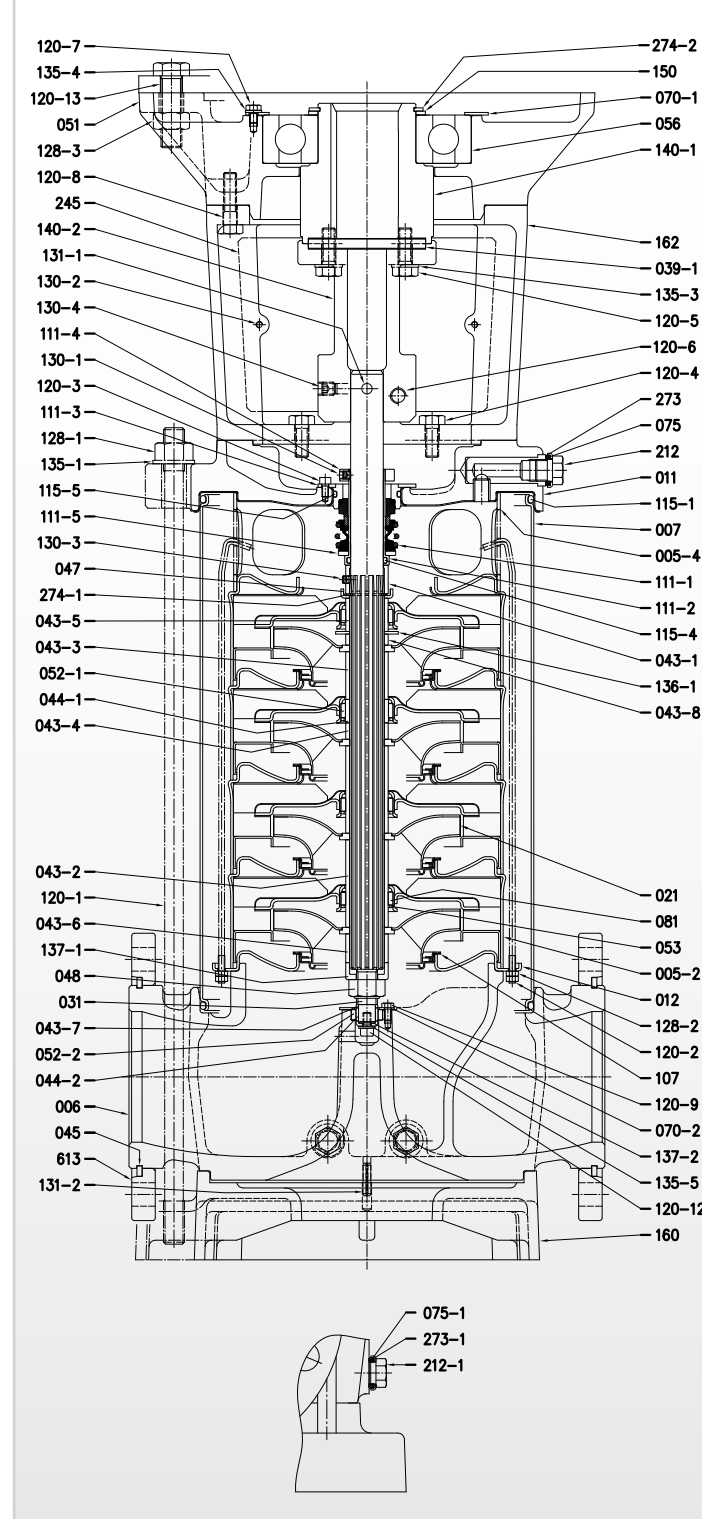
Pump with single ball bearing
[EVM10/18]



Pump with single ball bearing
[EVM32]



Pump with single ball bearing
[EVM45/64]

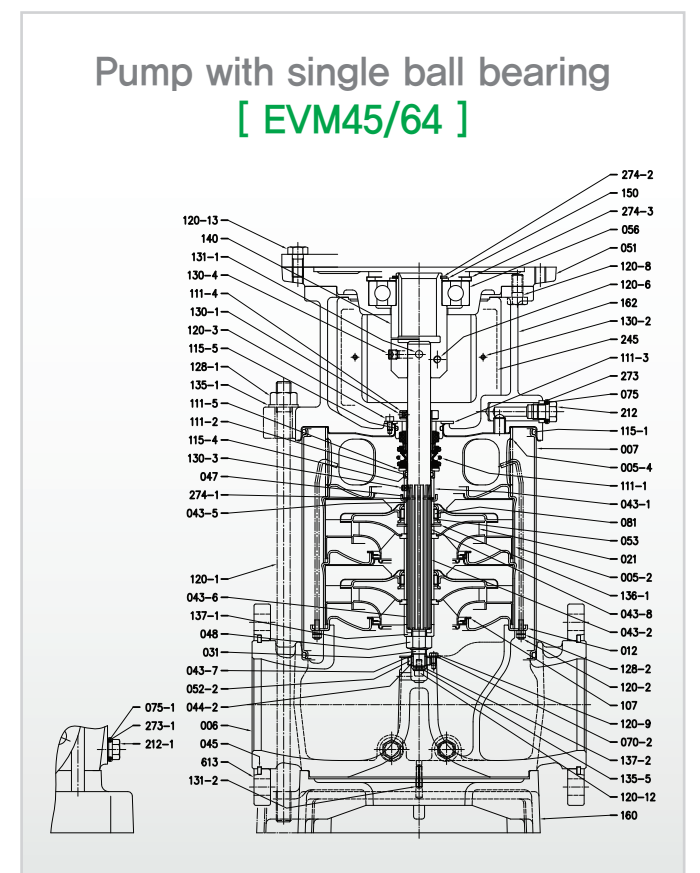
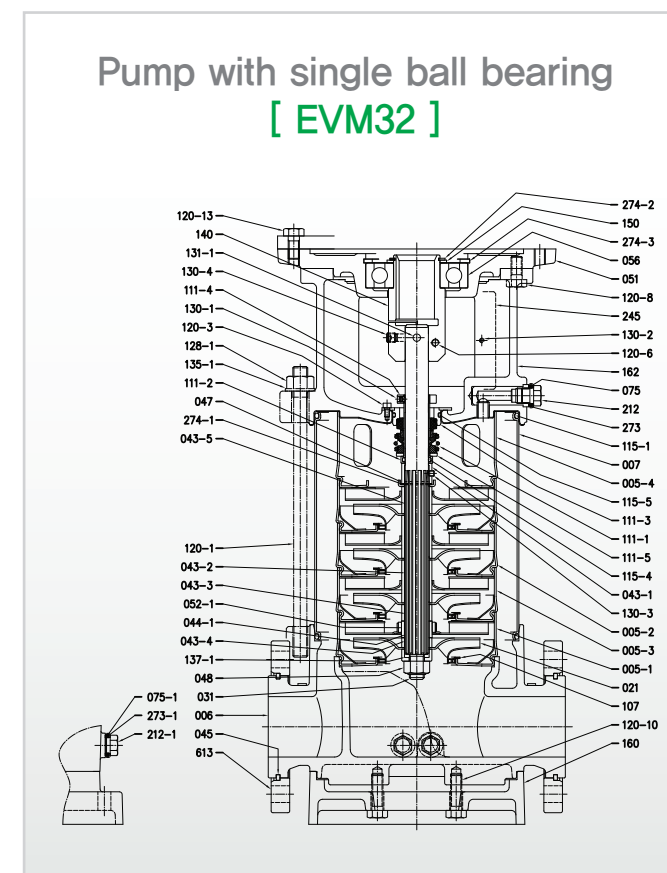
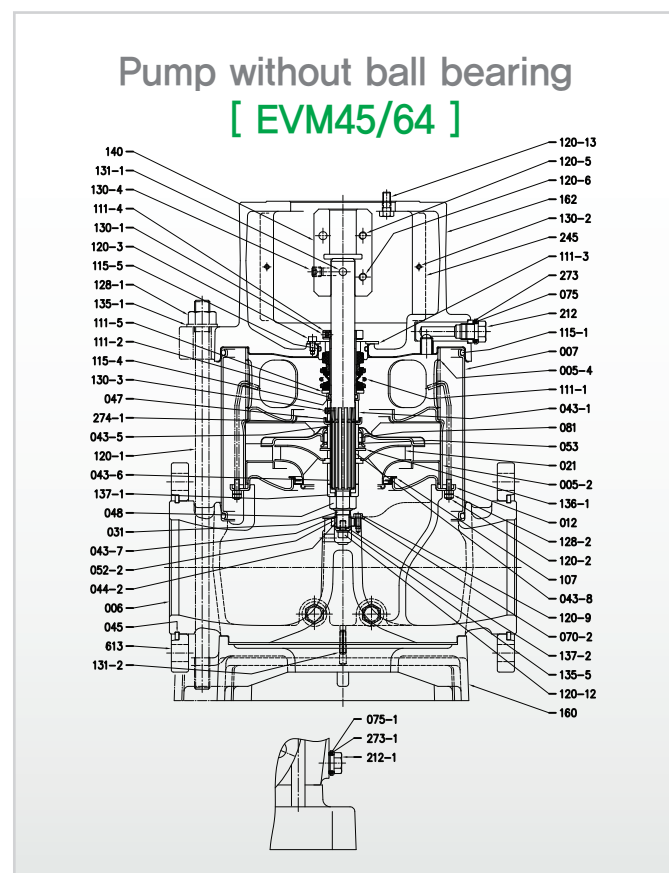
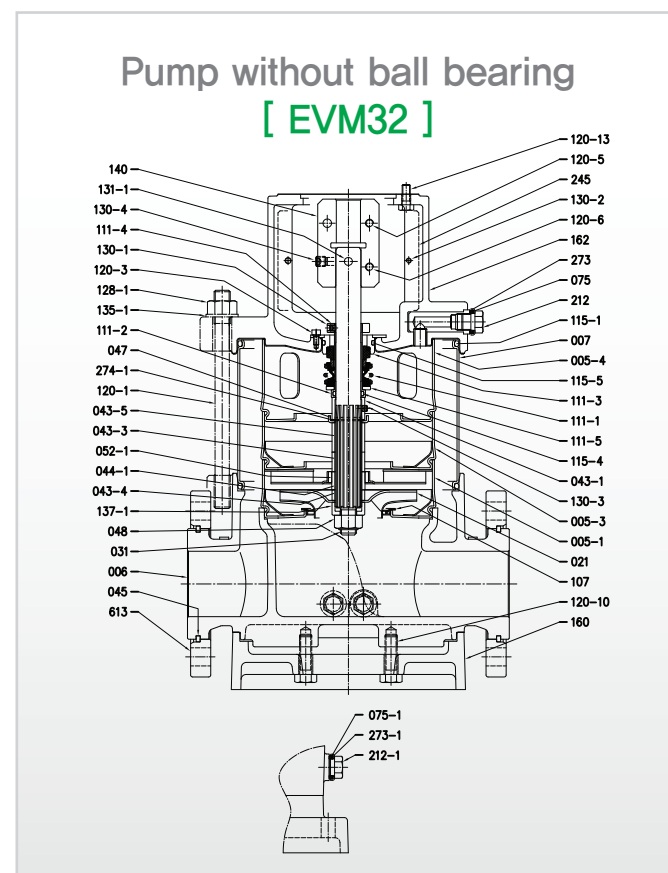
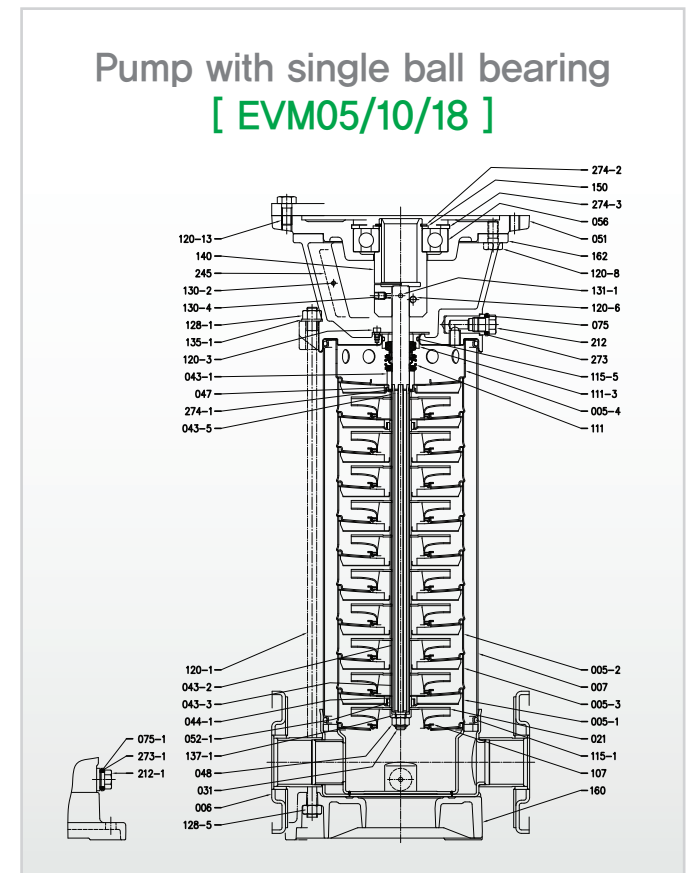
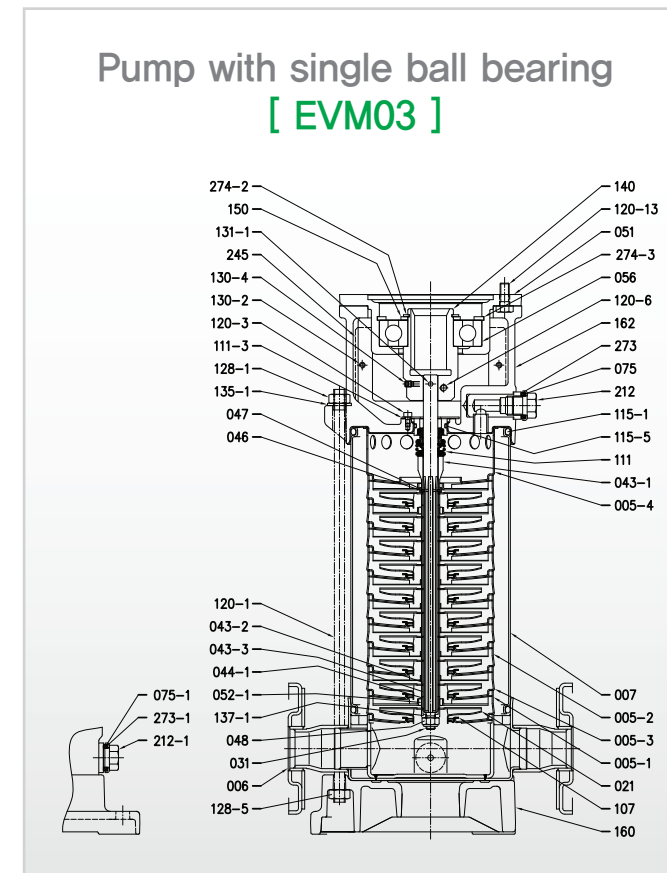
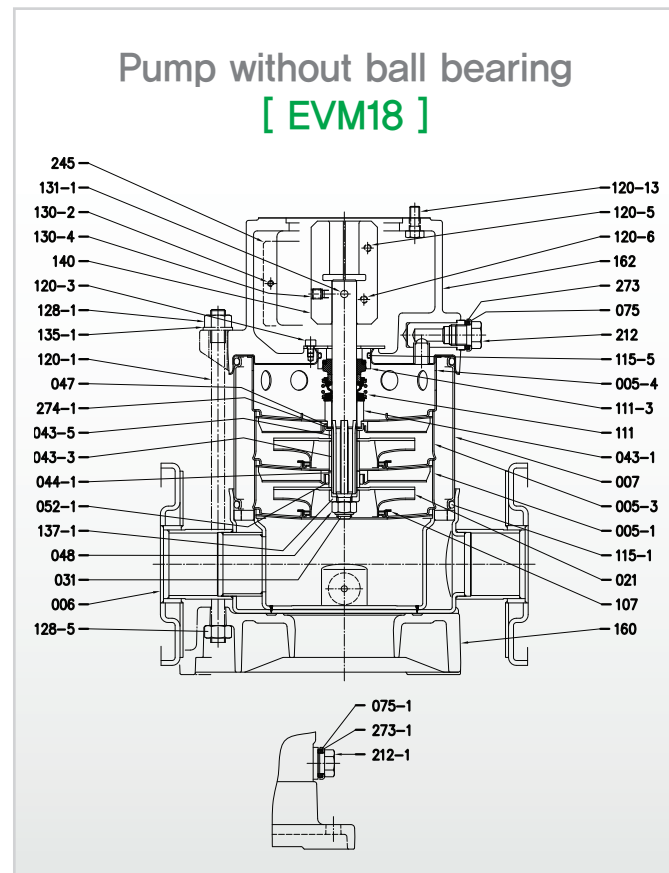
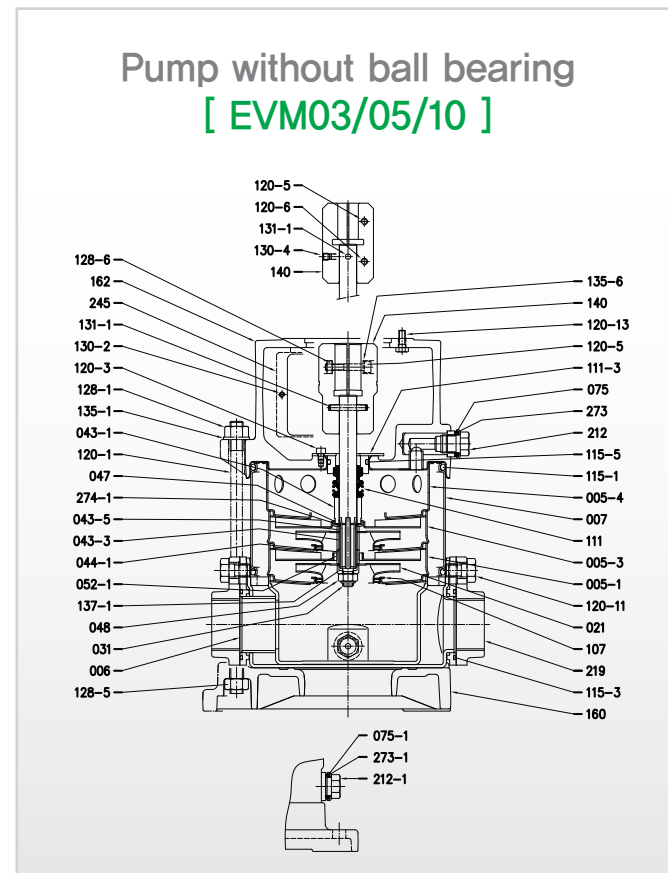


NO.	Part Name	Material	
		EVM	EVMIL
005-1	Suction Casing	STS304	STS316
005-2	Intermediate Casing	STS304	STS316
005-3	Intermediate Casing Bearing	STS304	STS316
005-4	Discharge Casing	STS304	STS316
006	Bottom Casing	STS304/SSC13	STS316/SSC14
007	Outer Casing	STS316/STS304	STS316
011	Casing Cover	Cast Iron/STS304	Cast Iron/STS316
012	Suction Cover	STS304	STS316
021	Impeller	STS304	STS316
031	Shaft	STS316	
039-1	Key	Carbon Steel	
043-1	Shaft Sleeve (Mechanical seal)	STS304	STS316
043-2	Shaft Sleeve (Intermediate)	STS304	STS316
043-3	Shaft Sleeve (Bearing)	STS304	STS316
043-4	Shaft Sleeve (Adjustment)	STS304	STS316
043-5	Shaft Sleeve (Last Stage)	STS304	STS316
043-6	Shaft Sleeve (Adjustment)	STS304	STS316
043-7	Shaft Sleeve (Bottom Bearing)	STS304	STS316
043-8	Shaft Sleeve (Discharge/Lower)	STS304	STS316
044-1	Shaft Sleeve Bearing	Tungsten Carbide	
044-2	Bearing Sleeve	Tungsten Carbide	
045	Flange Holder	STS420	
047	Ring Holder	STS304	STS316
048	Impeller Nut	A2-70 UNI 7323	A4-70 UNI 7323
051	Motor Adapter	Cast Iron EN-GJL-200 EN 1561	
052-1	Bearing	Tungsten Carbide	
052-2	Bearing	Tungsten Carbide	
053	Bush Holder	STS304	STS316
056	Ball Bearing	-	
070-1	Ring for Bearing	STS304	
070-2	Ring for Bearing	STS304	STS316
081	Bush	PTFE	
107	Liner Ring	EPDM/STS304(03~18), PTFE/STS316(32~45)	PTFE / STS316
111-1	Mechanical Seal	Silicon Carbide / Carbon / FPM	
111-2	Mechanical Seal Cartridge	STS304	STS316
111-3	Mechanical Seal Seat	STS304	STS316
111-4	Seal Holder	Brass OT 58 UNI 5705	STS316
111-5	Adjusting Ring	STS304	STS316
115-1	O-Ring (Outer Casing)	EPDM	FPM
115-2	O-Ring (Intermediate Casing)	EPDM	FPM
115-4	O-Ring (Cartridge Sleeve)	EPDM	FPM
115-5	O-Ring (Seal Cover)	EPDM	FPM
120	Tie-rod	Zincate Steel 8.8 Strength Class 898/1	
120-3	Screw (Mechanical Seal)	A2-70 UNI 7323	
120-4	Screw (Casing Cover)	Zincate Steel 8.8 Strength Class 898/1	
120-5	Screw for Coupling(Pump)	Zincate Steel 8.8 Strength Class 898/1	
120-6	Screw for Coupling(Motor)	Zincate Steel 8.8 Strength Class 898/1	
120-7	Screw (Coupling Bearing)	Zincate Steel 8.8 Strength Class 898/1	
120-9	Screw (Bearing Sleeve)	STS304	STS316
120-12	Screw (Shaft Spacer)	STS304	STS316
120-13	Screw (Motor Adapter)	Zincate Steel 8.8 Strength Class 898/1	
130-2	Screw for Coupling Guard	A2-70 UNI 7323	
131-1	Pin for Shaft	Carbon Steel	
136	Bearing Washer	Carbon Steel	
137-1	Impeller Spacer	STS304	STS316
137-2	Shaft Spacer	STS304	STS316
140	Coupling	Brass OT 58 UNI 5705	
140-1	Motor Coupling	Carbon Steel	
140-2	Coupling (Pump Side)	Carbon Steel	
150	Spacer	Carbon Steel	
160	Base	Cast Iron EN-GJL-200 EN 1561	
162	Motor Bracket	Cast Iron EN-GJL-200 EN 1561	
212	Plug	STS304	STS316
245	Coupling Guard	STS304	
274-1	C-Type Snap Ring (M/Seal)	STS304	STS316
274-2	C-Type Snap Ring (Coupling)	Carbon Steel TC80	
274-3	C-Type Snap Ring (Bracket)	Carbon Steel TC80	
613	Flange	-	

조립 단면도 Sectional Drawing

50Hz (2900RPM)

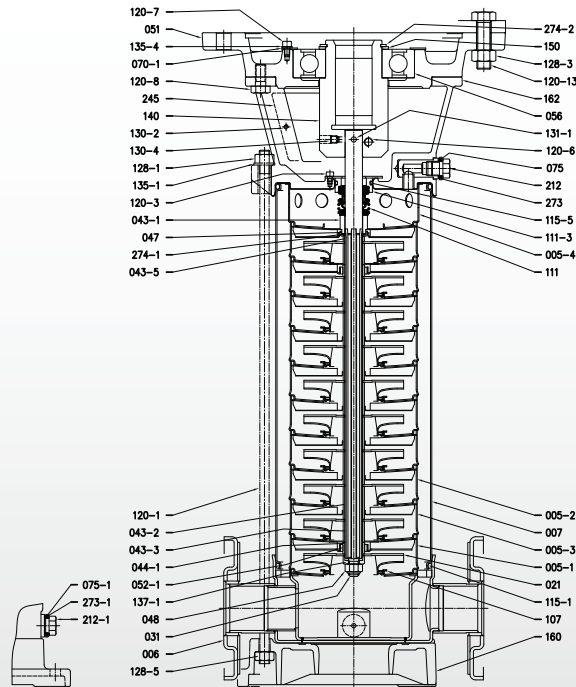
50Hz (2900RPM)



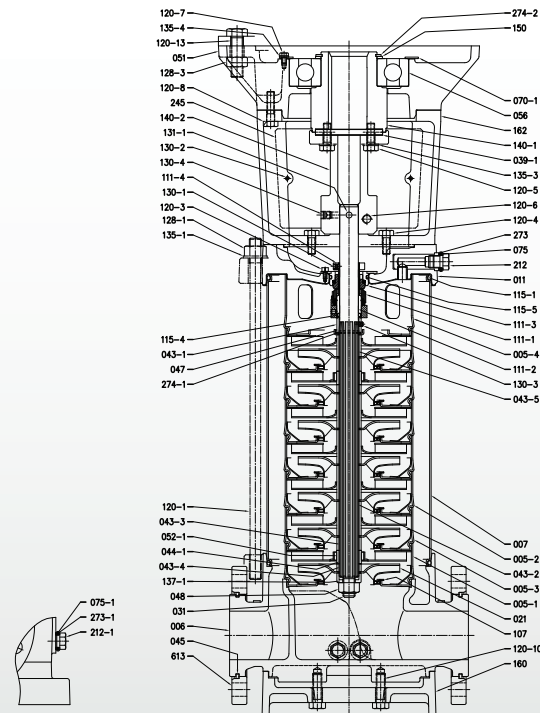
조립 단면도 Sectional Drawing

50Hz (2900RPM)

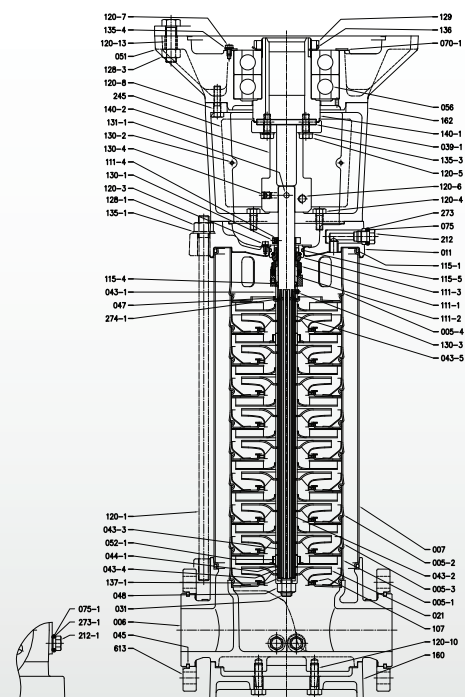
Pump with single ball bearing
[EVM10/18]



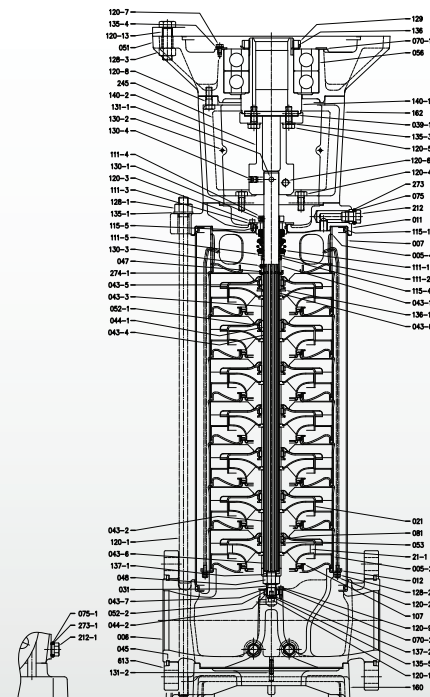
Pump with single ball bearing
[EVM32]



Pump with double ball bearing
[EVM32]

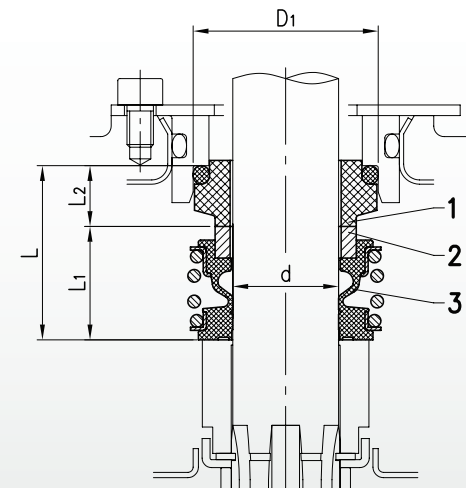


Pump with double ball bearing
[EVM45/64]



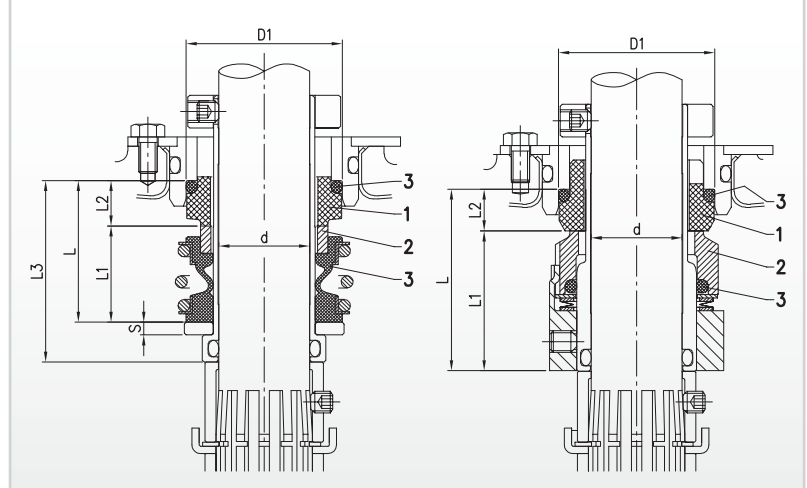
메카니칼 씰 구조도 Mechanical Seal Construction

[EVM03/05/10/18]



Up to 25 BAR

[EVM32/45/64]

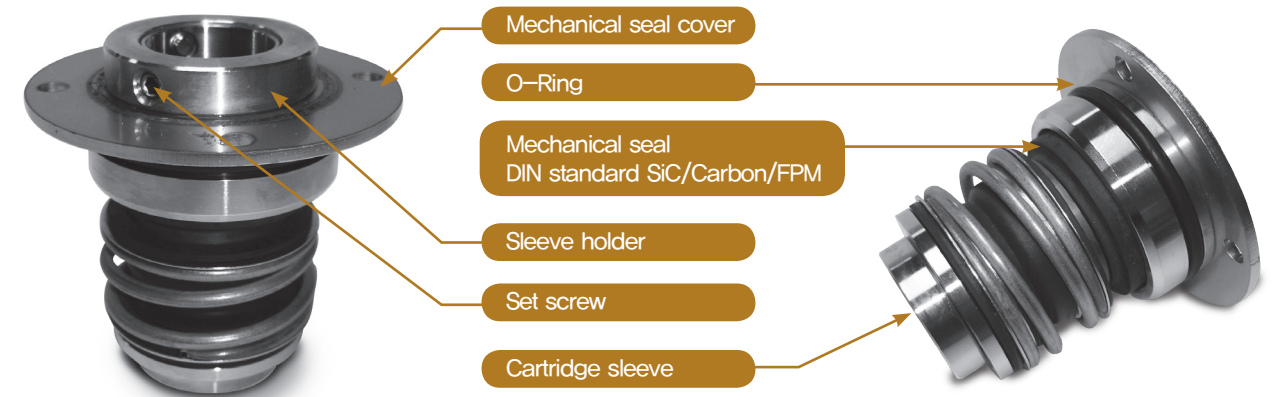


Up to 25 BAR

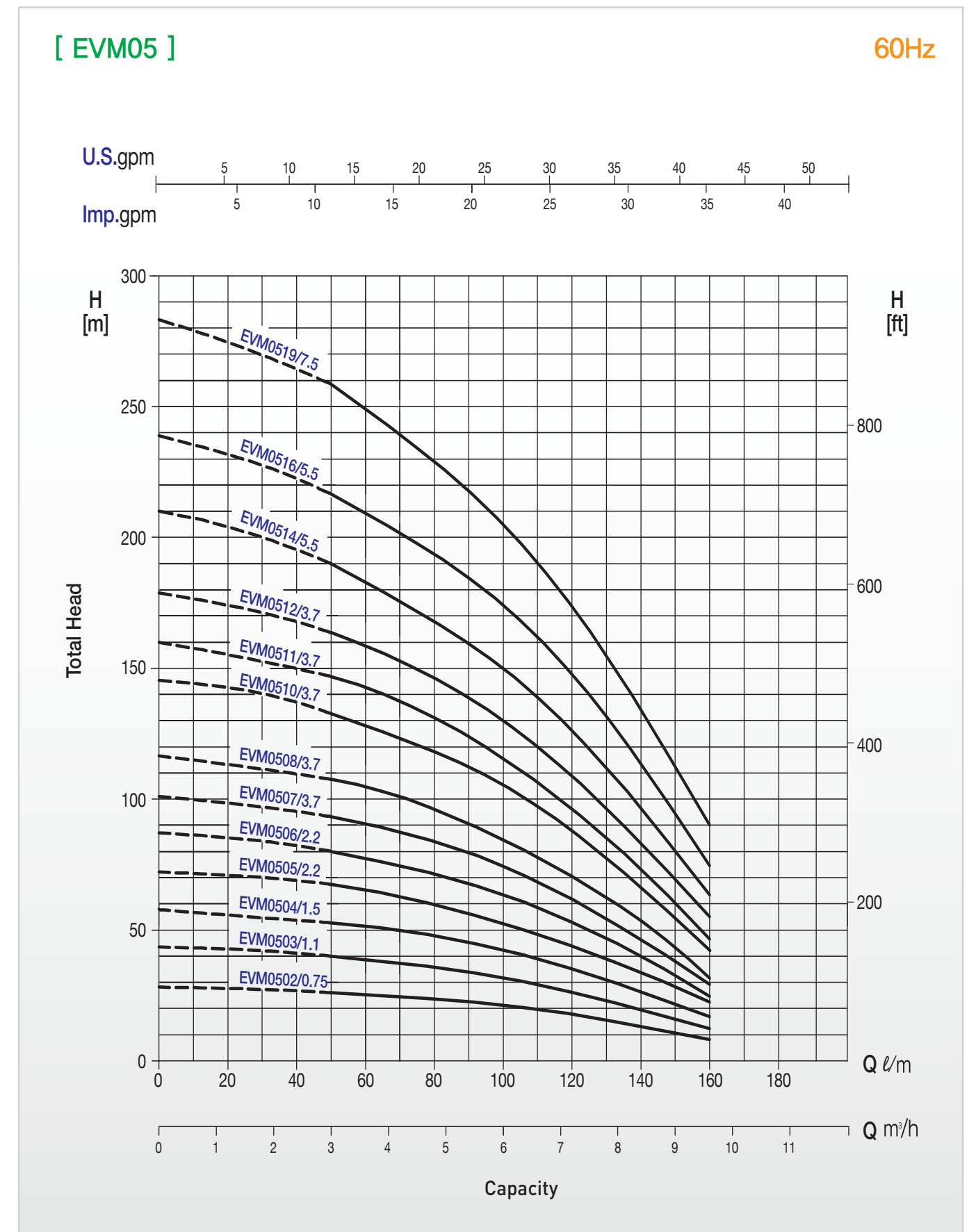
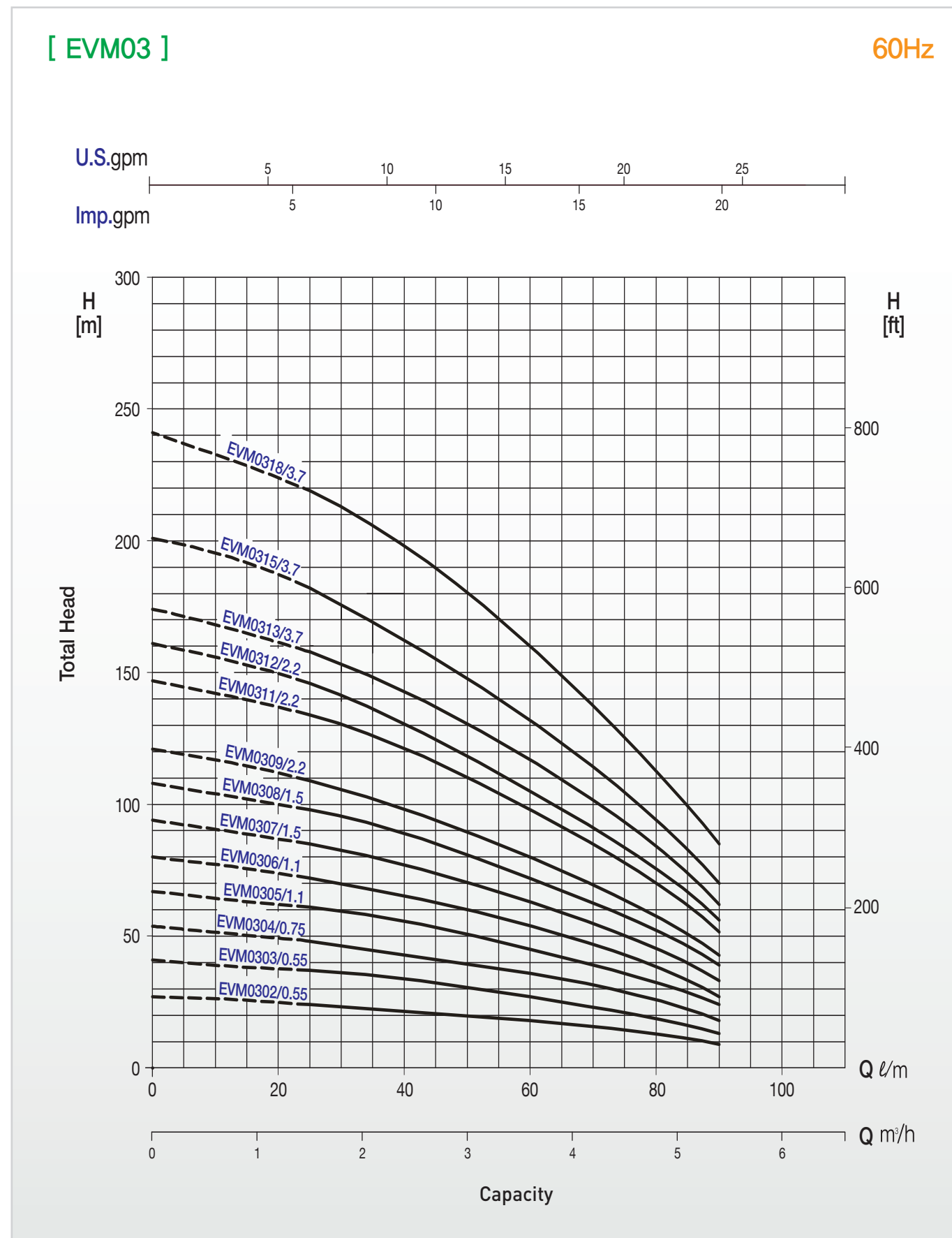
From 25 to 30 BAR

unit : mm

Pump type EVM	Size	Max. working pressure [MPa]	d	D1	L	L1	L2	L3	S	Material		
										1 stationary seal ring	2 rotary seal ring	3 rubber
EVM03/05	12.7	2.5	12.7	23	23.5	16	7.5	-	-	Carbon graphite	Silicon carbide	FPM (EPDM WRAS approved for EVMW)
EVM10	16	2.5	16	27	27	17	10	-	-			
EVM18	20	2.5	20	35	33	21.5	11.5	-	-			FPM
EVM32/45/64	25	2.5	25	43	39	26.5	12.5	50	3.5			
		3.0			50	38.5	11.5	-	-			



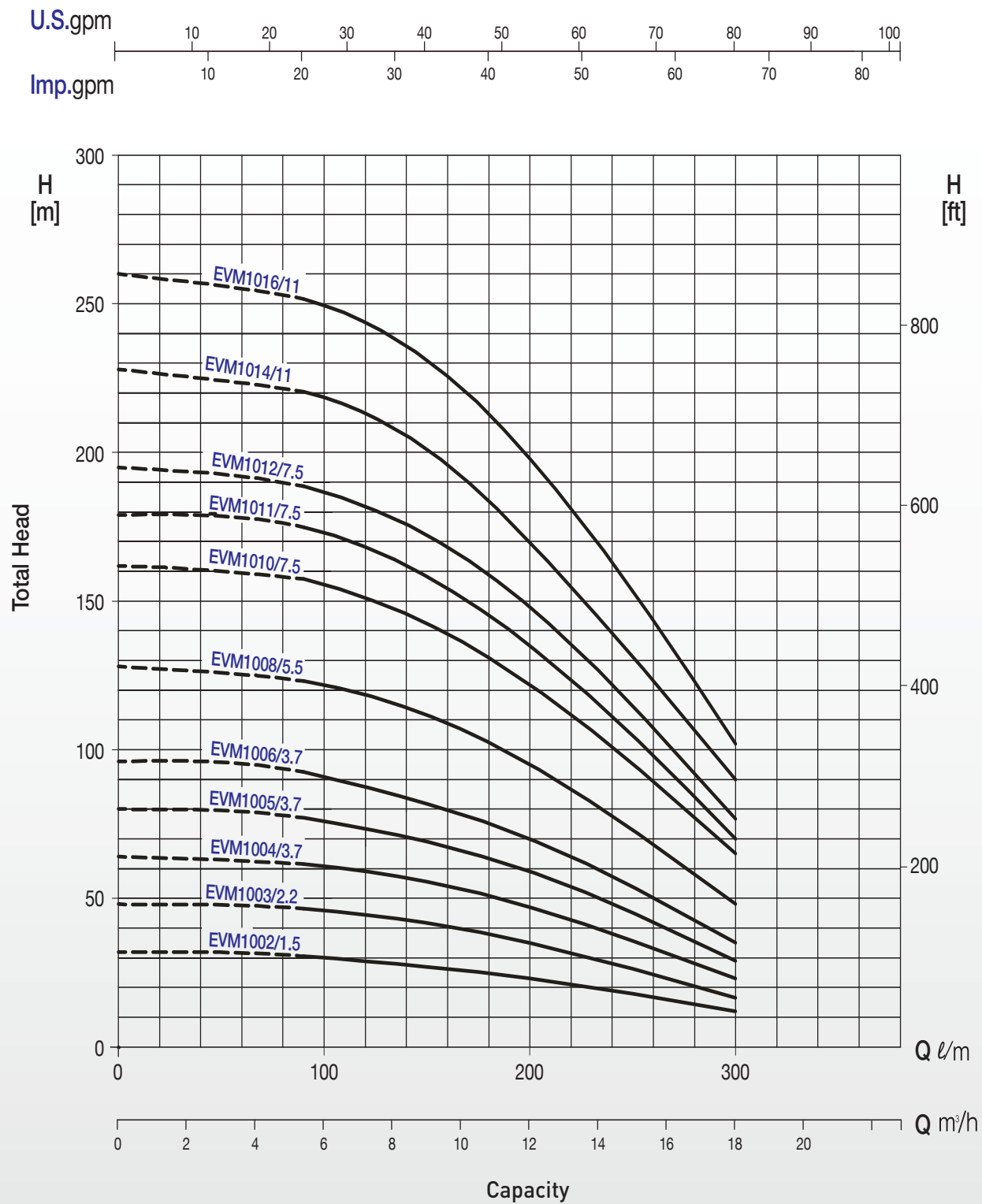
성능 곡선도 Performance Curve



성능 곡선도 Performance Curve

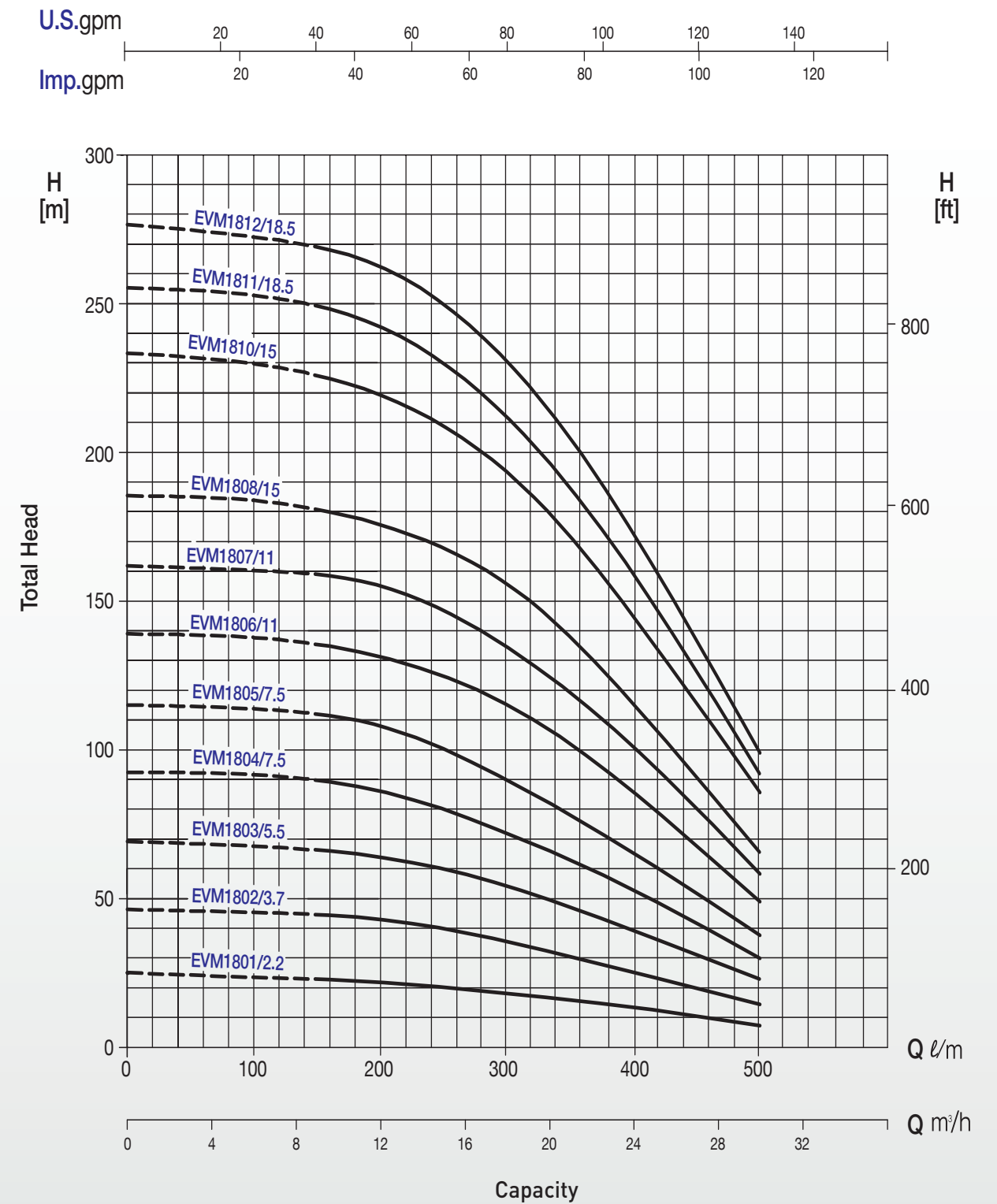
[EVM10]

60Hz



[EVM18]

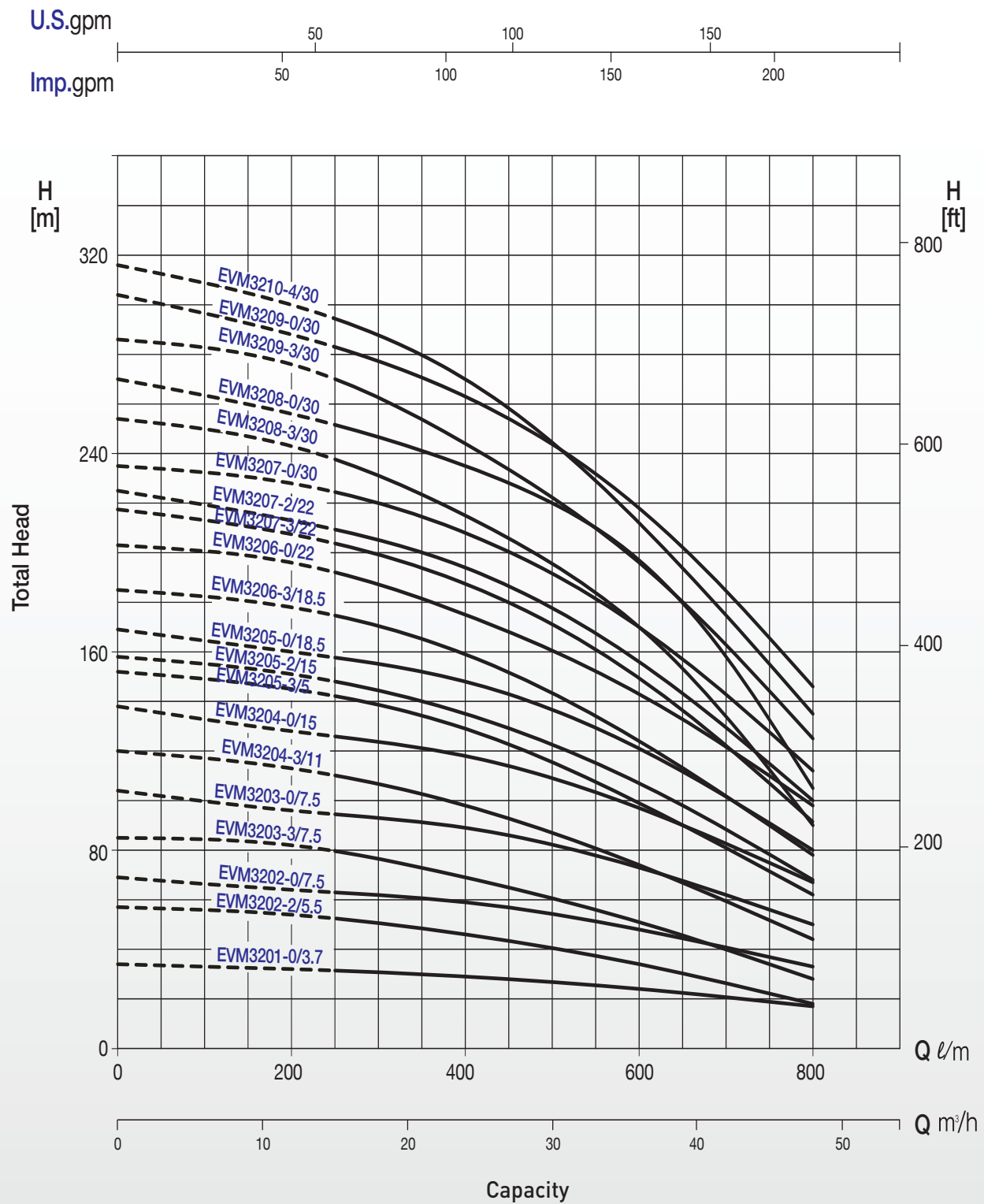
60Hz



성능 곡선도 Performance Curve

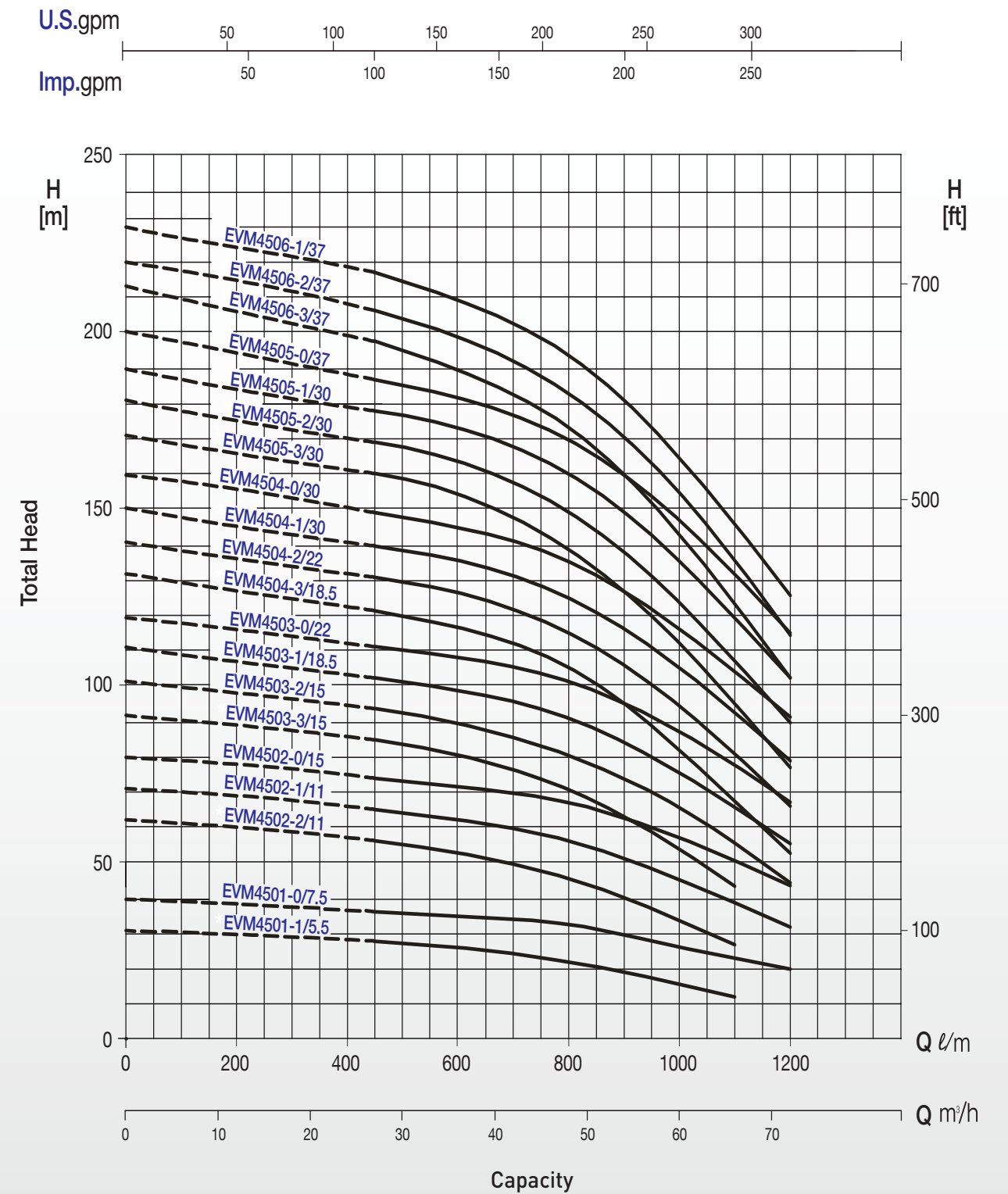
[EVM32]

60Hz



[EVM45]

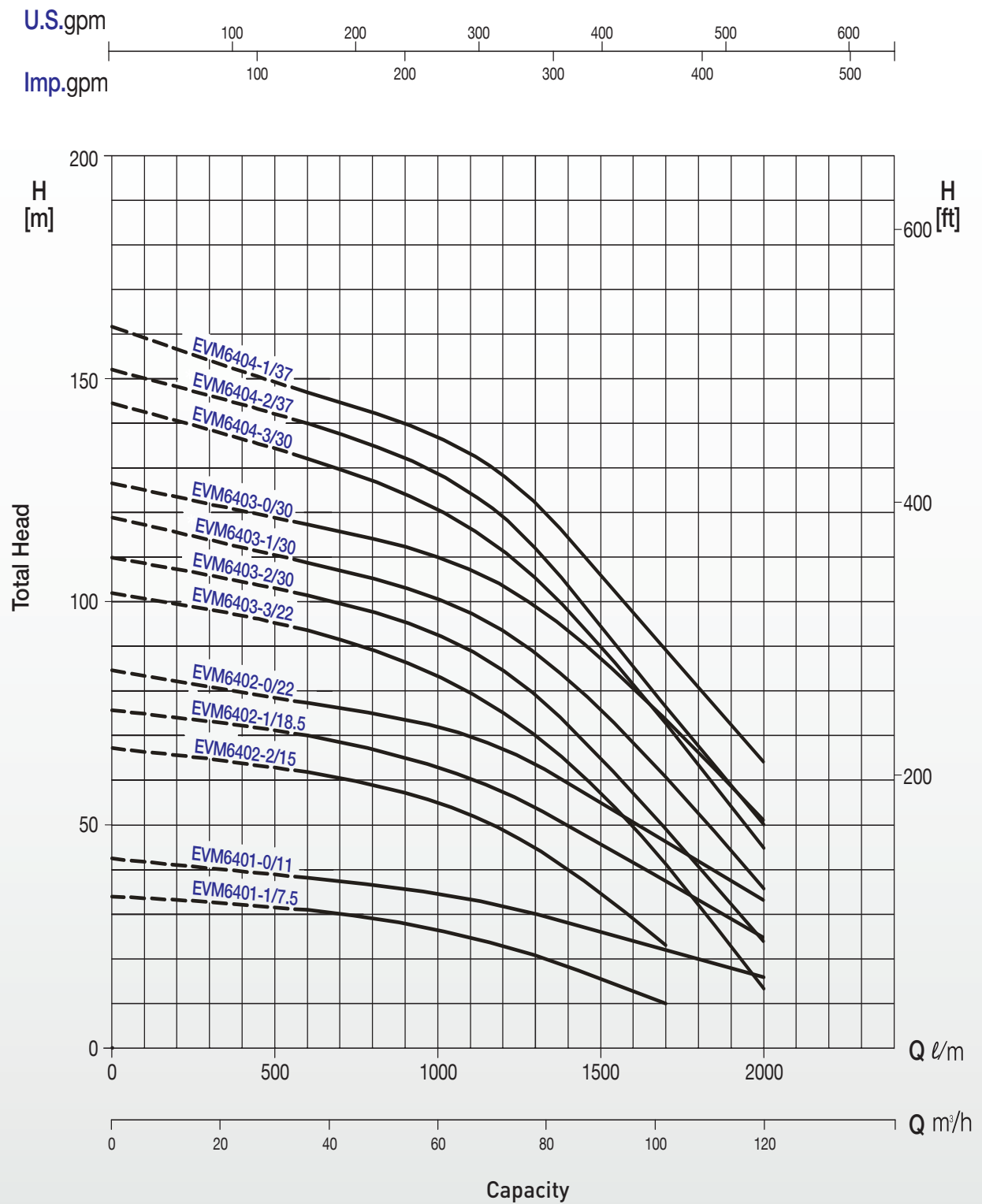
60Hz



 성능 곡선도 Performance Curve

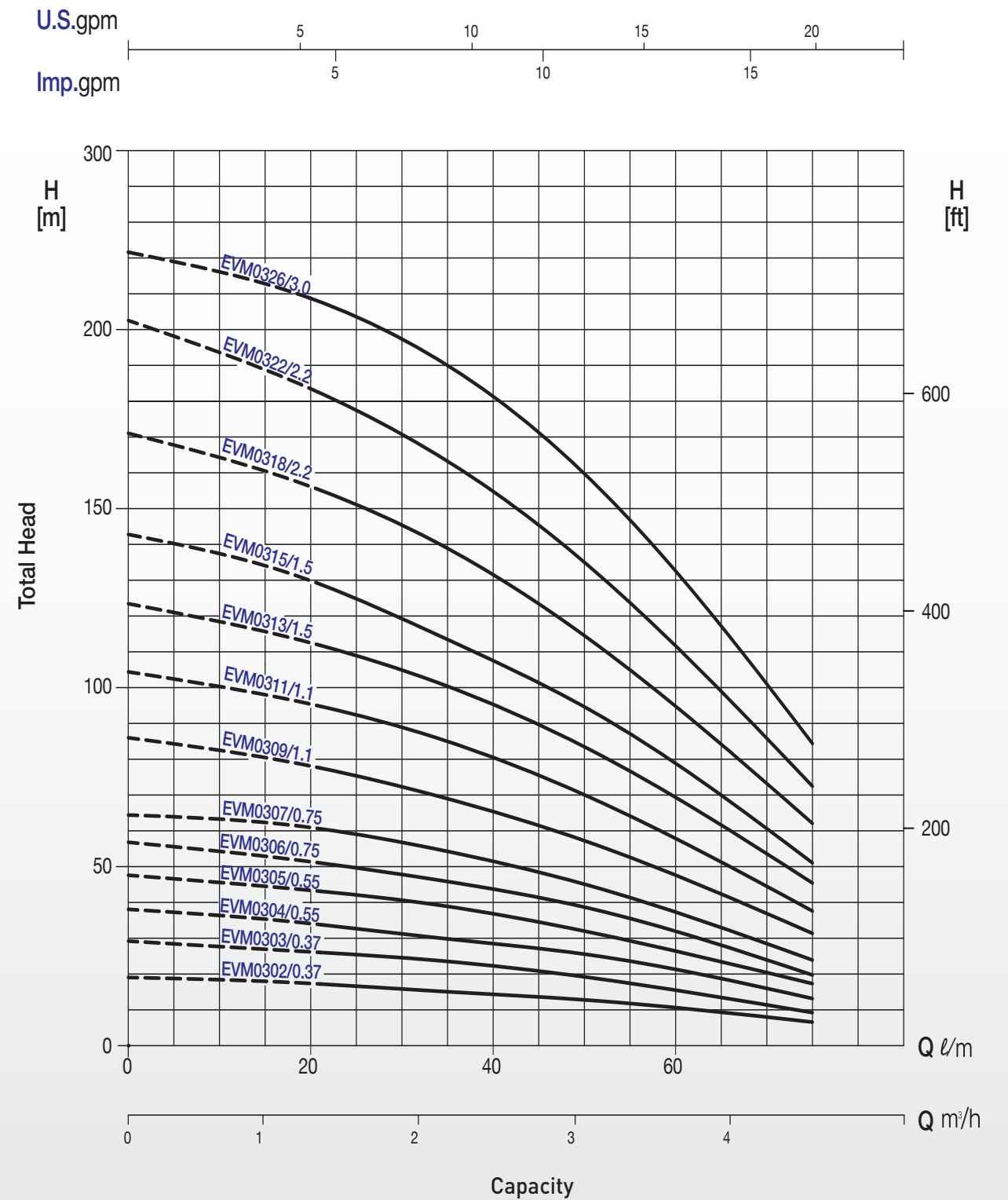
[EVM64]

60Hz

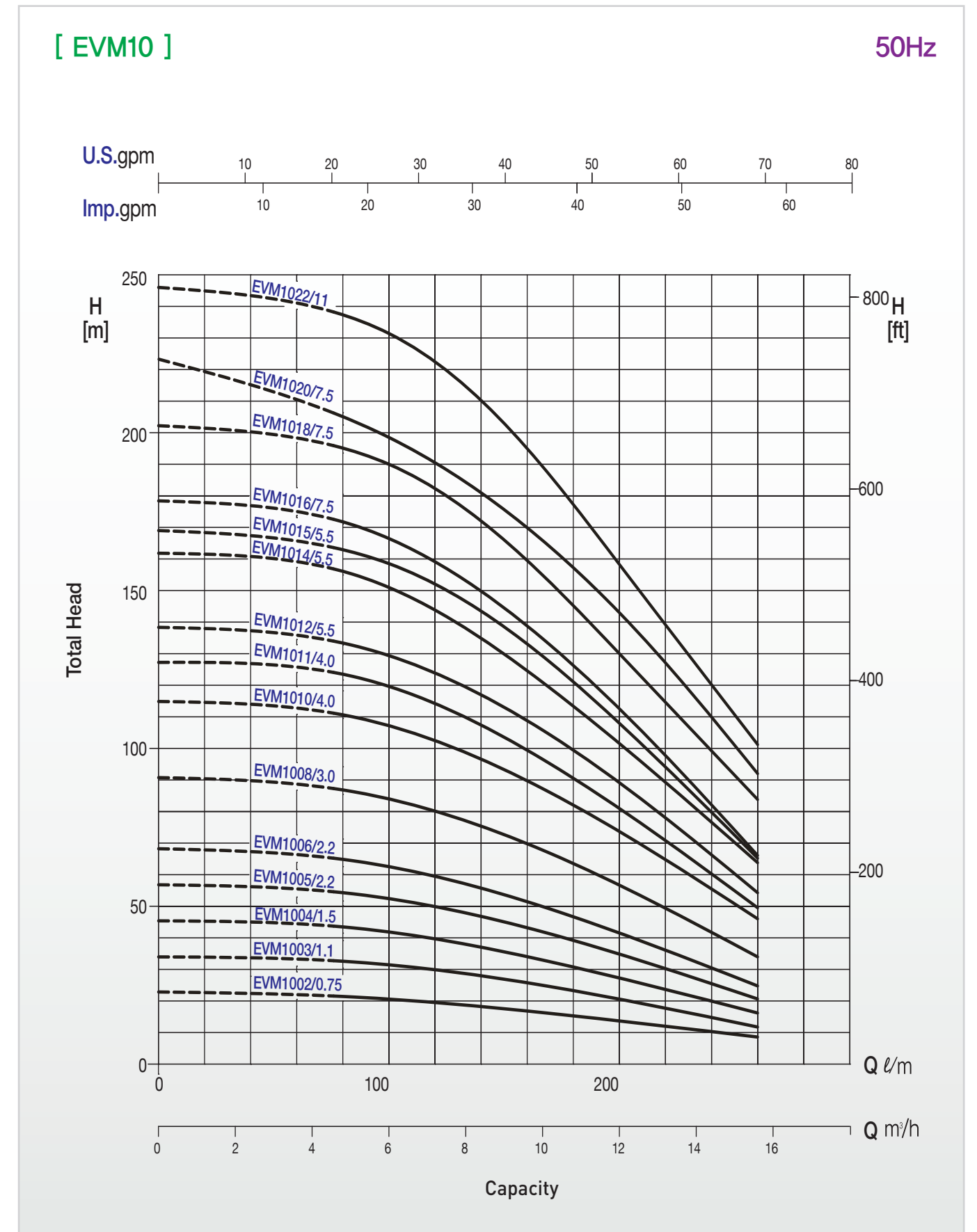
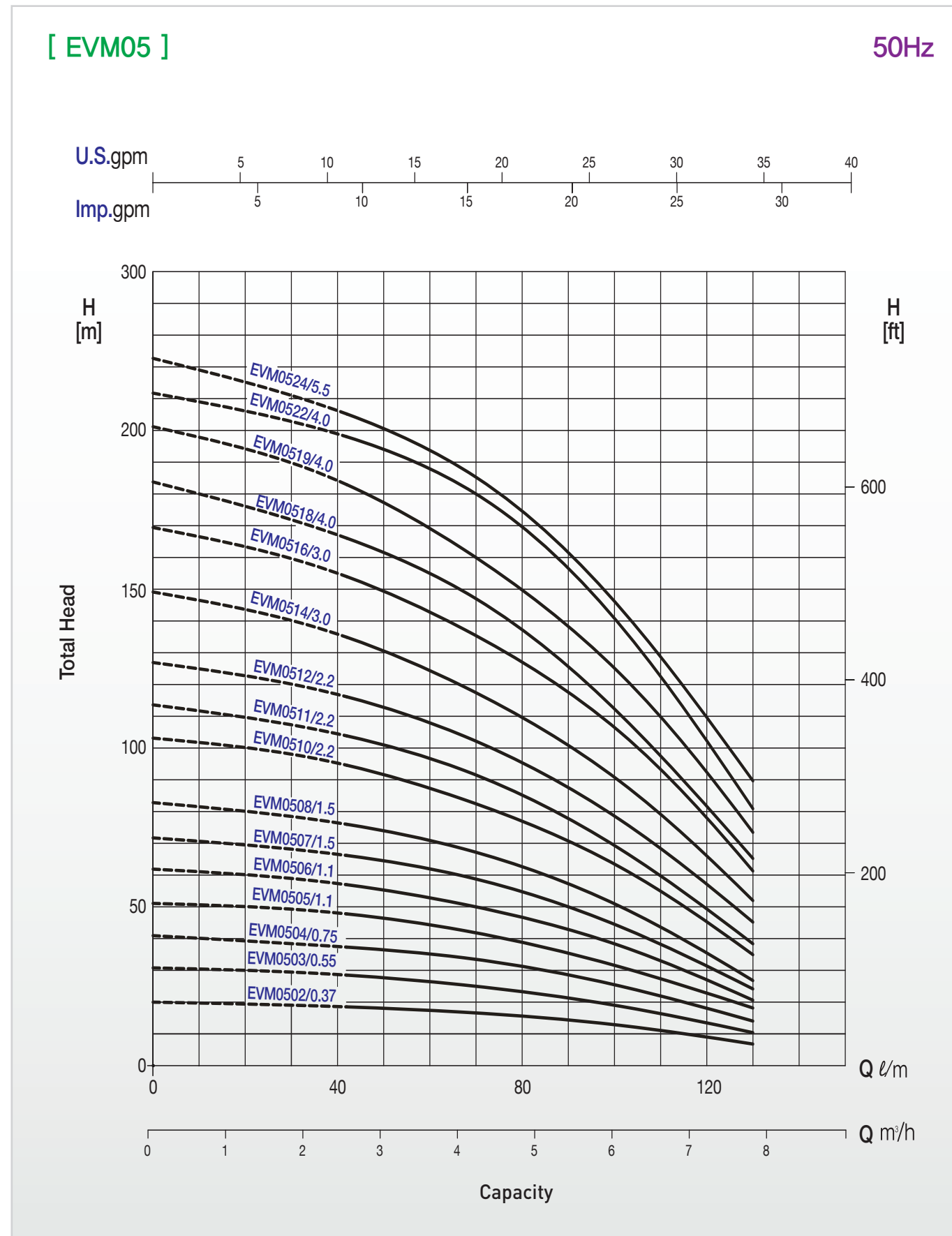


[EVM03]

50Hz



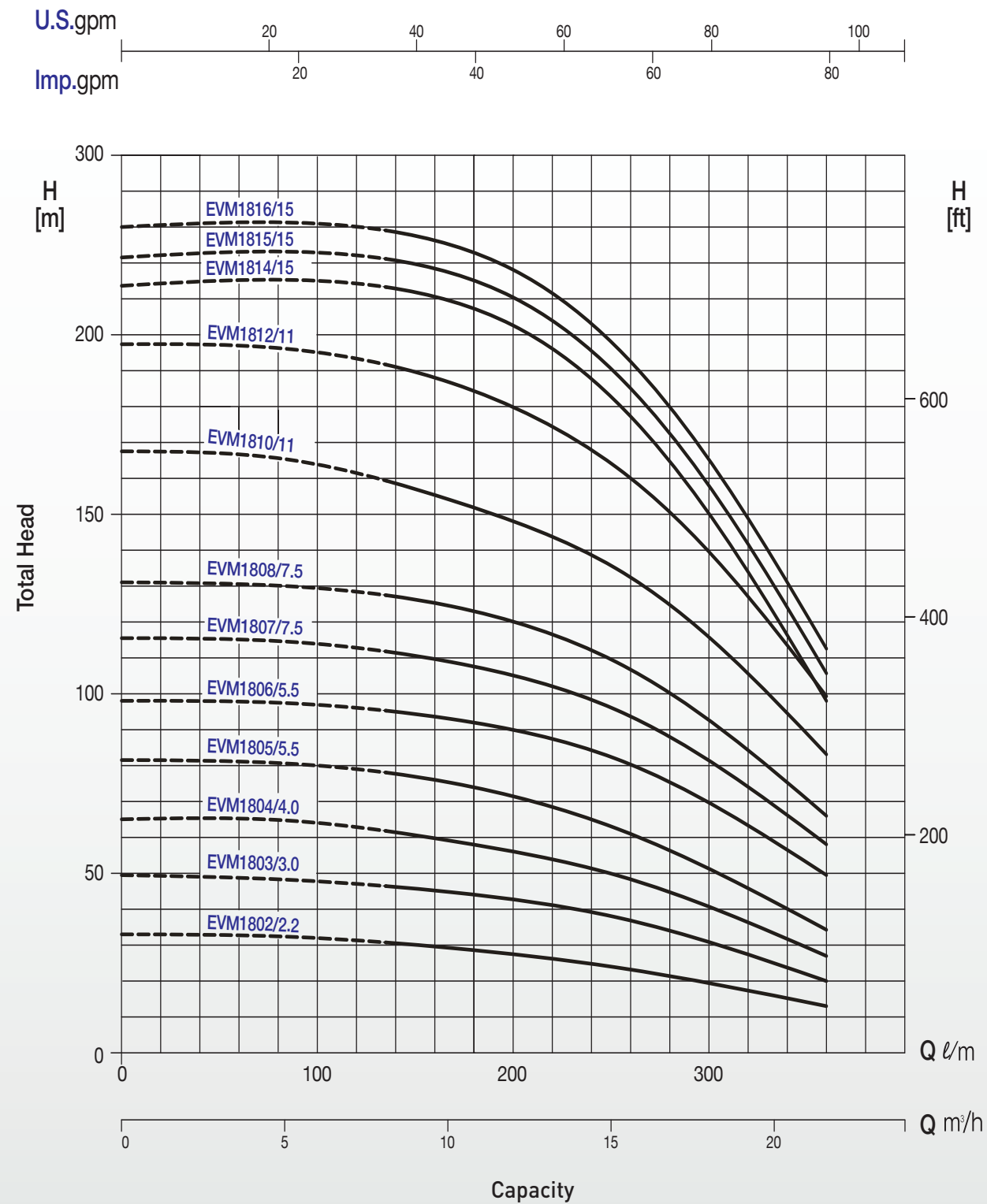
성능 곡선도 Performance Curve



성능 곡선도 Performance Curve

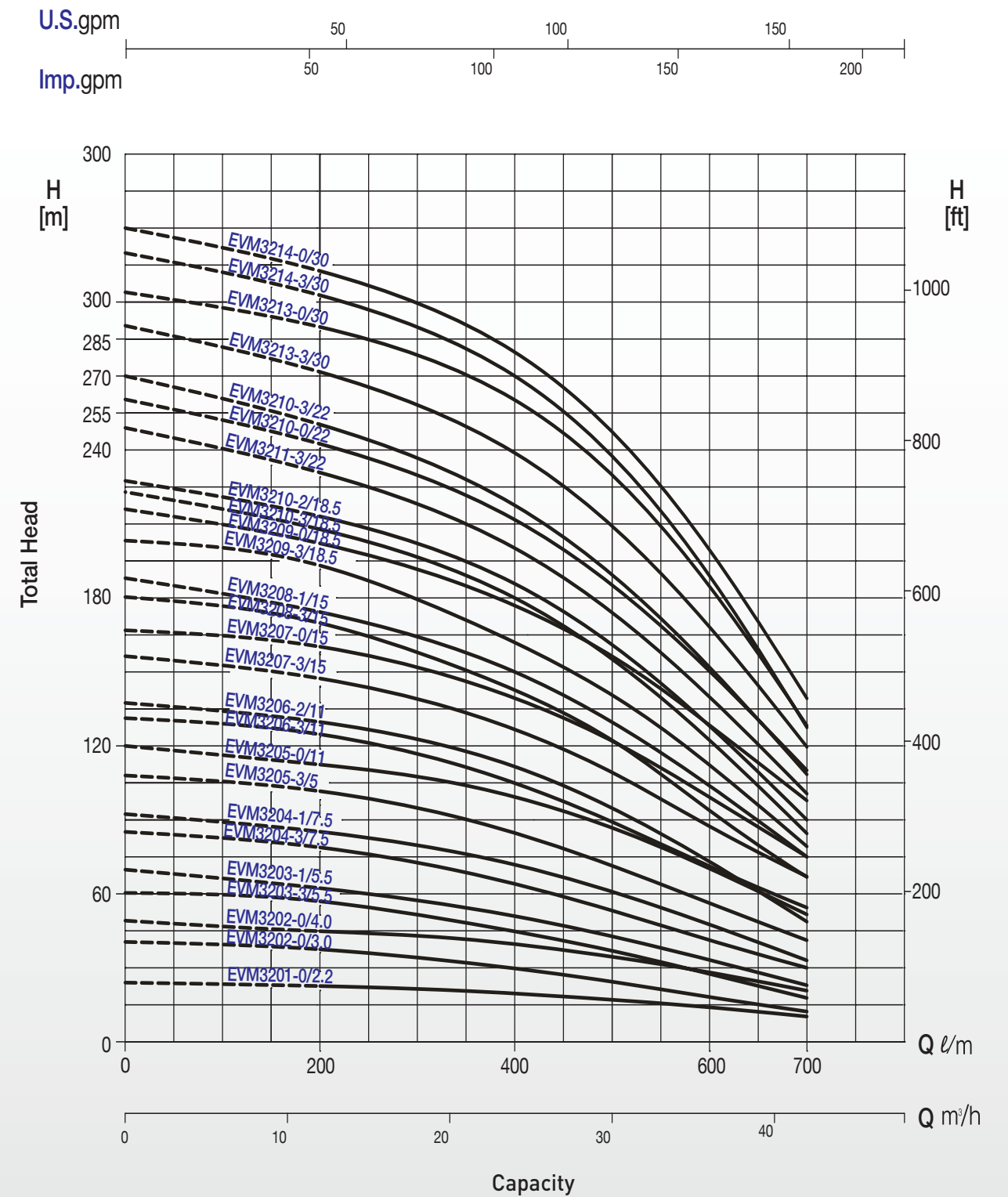
[EVM18]

50Hz



[EVM32]

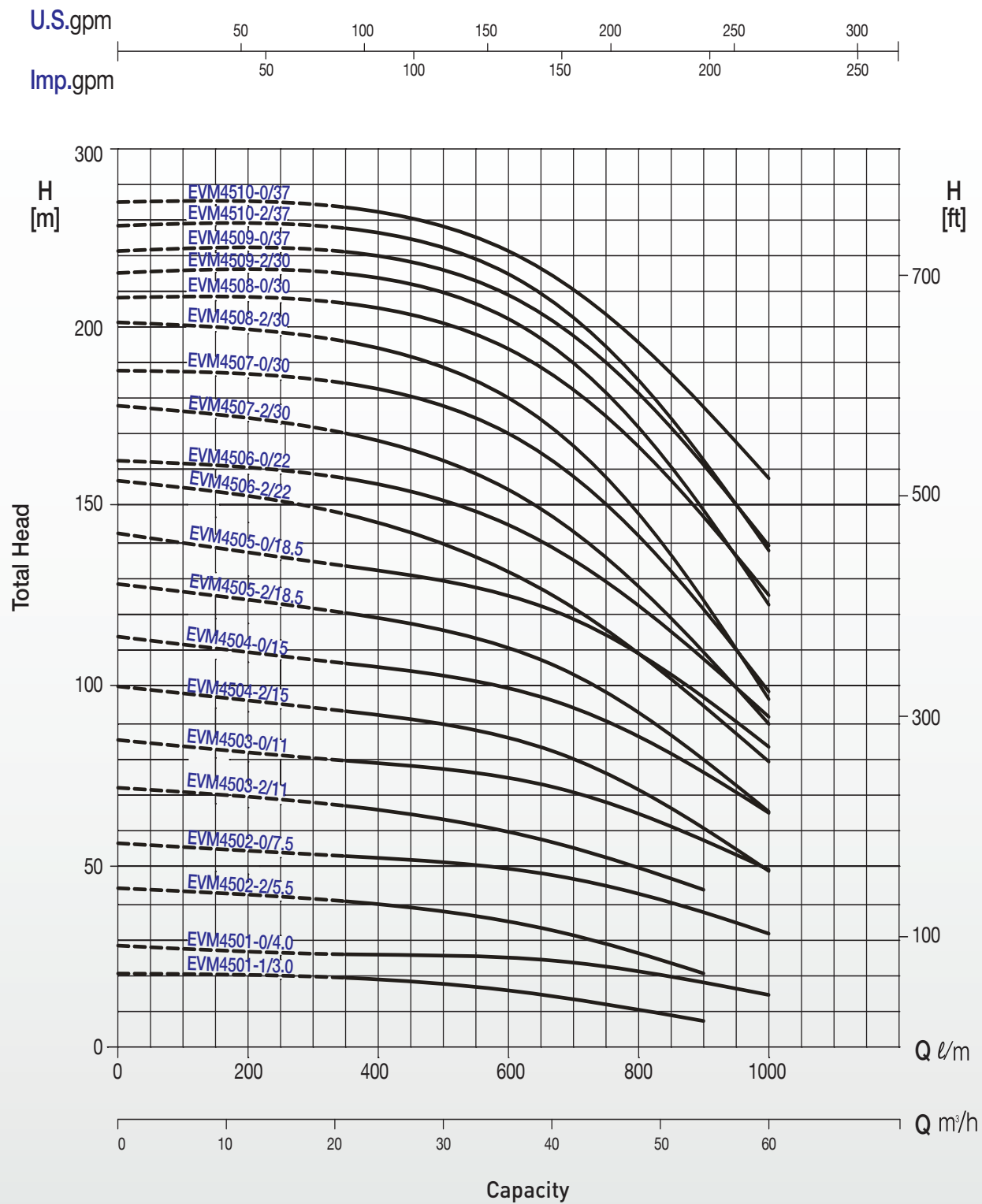
50Hz



성능 곡선도 Performance Curve

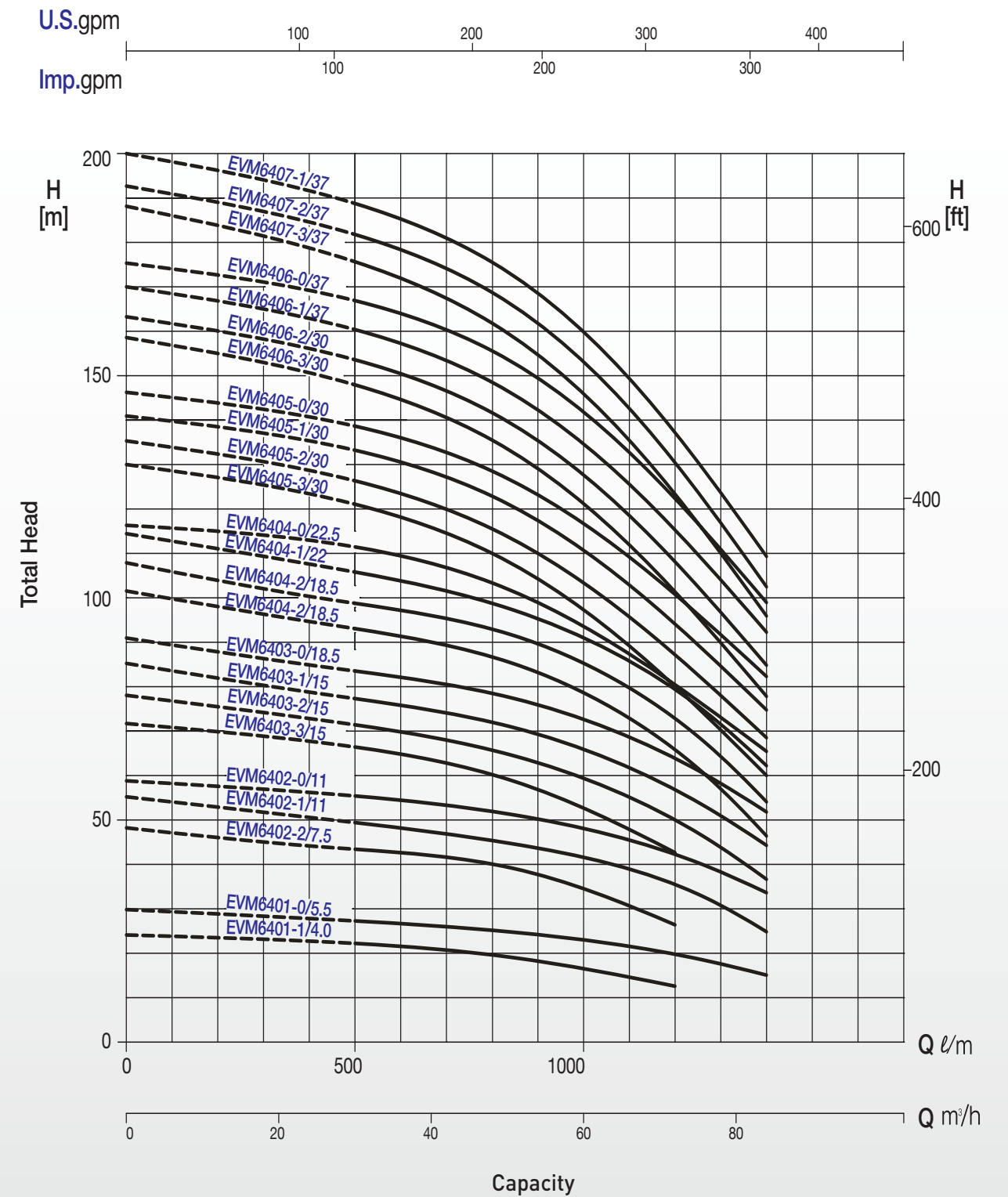
[EVM45]

50Hz



[EVM64]

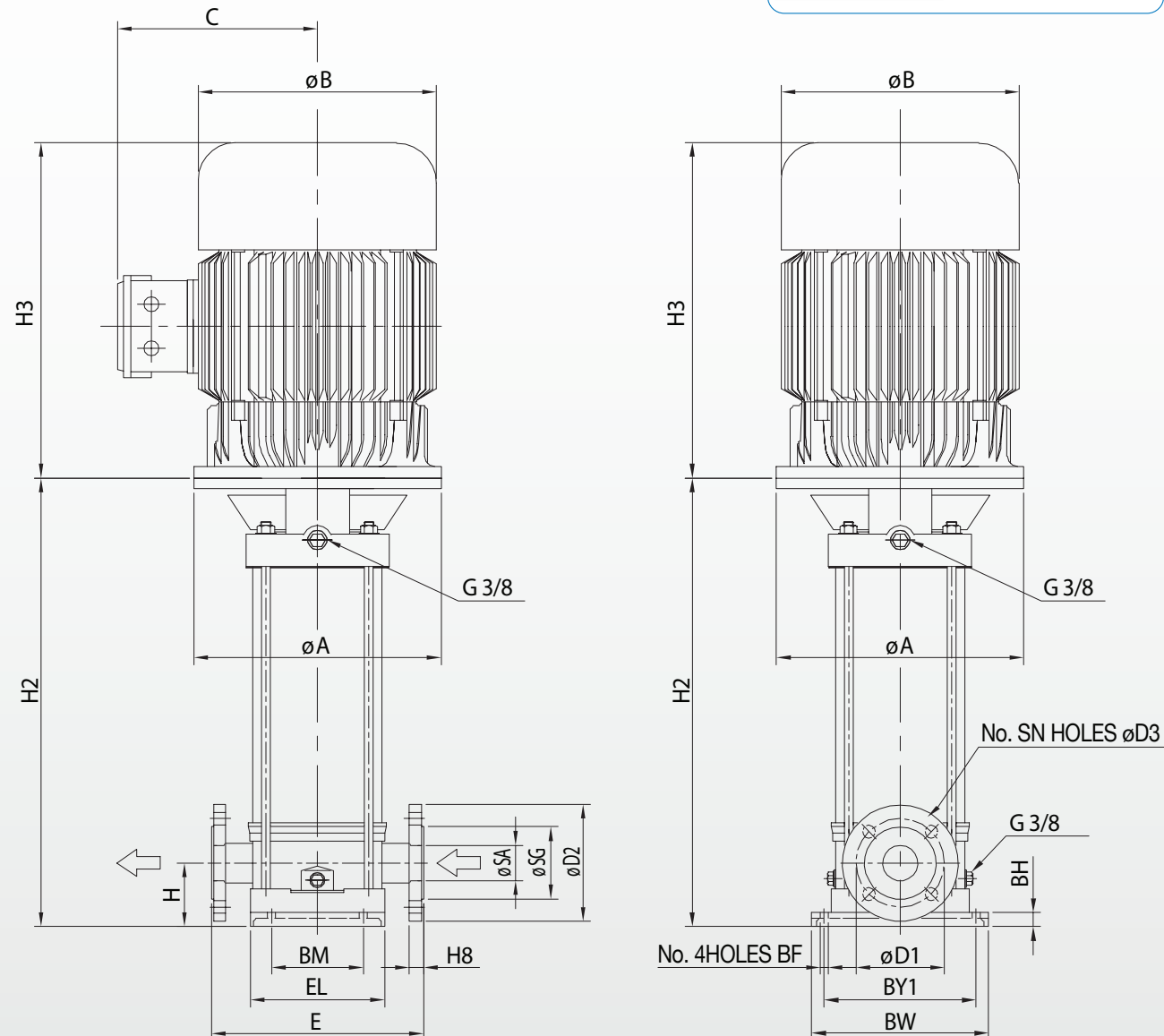
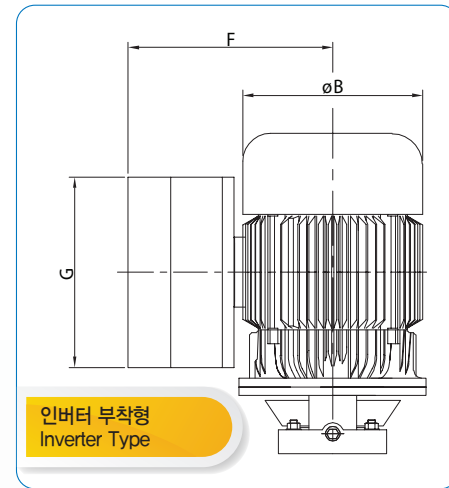
50Hz



외형도 Outline Drawing

60Hz

[EVM03/05/10/18]



외형 치수표 Outline Dimension

60Hz

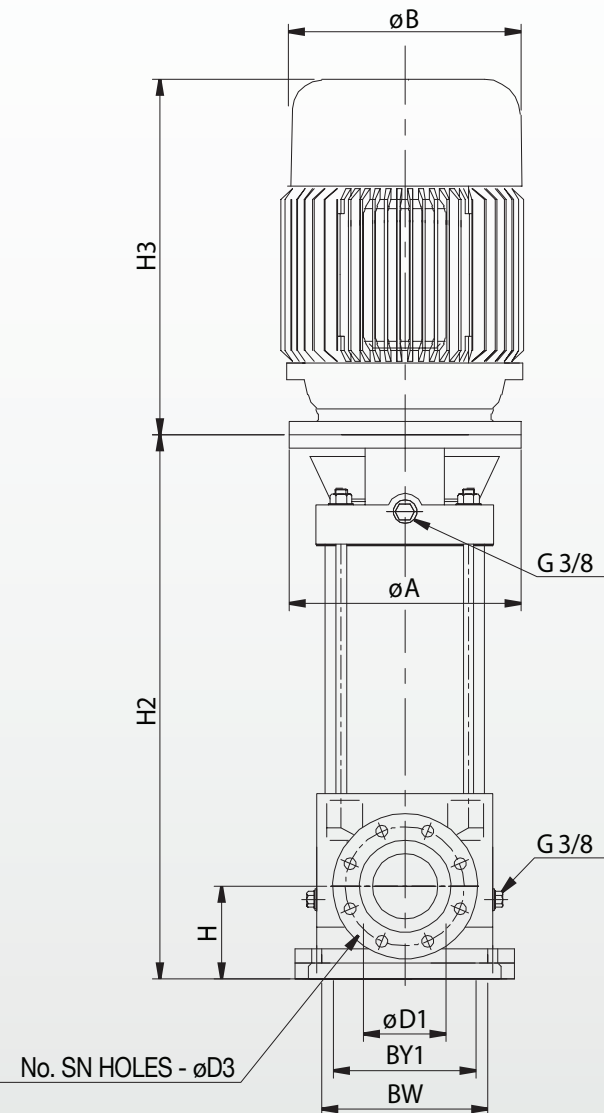
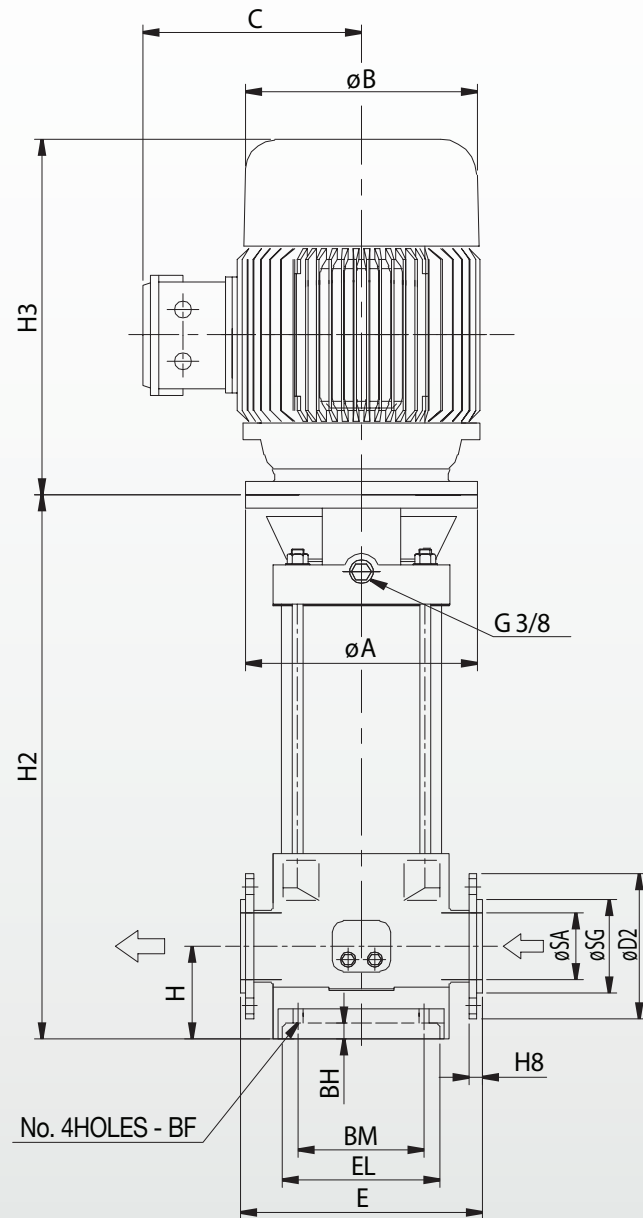
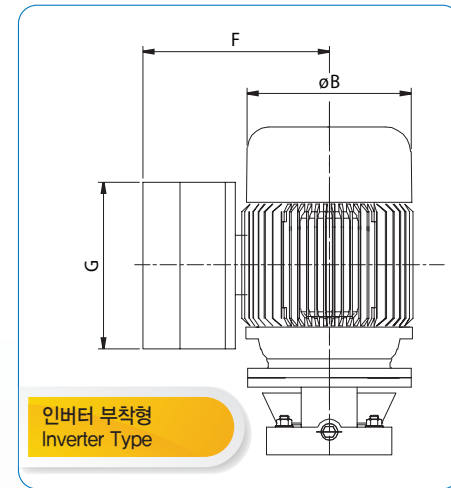
unit : mm

Pump Type	Pmax [bar]	Dimension																			중량 Weight [kg]*						
		H	H2	H3	E	B	C	G	F	BM	BL	BY1	BW	SA	SG	D1	D2	H8	SN	D3	BF	BH	A	Pump	Pump + Motor	Inverter	
EVM03	EVM0302/0,55	16	266																					Ø105	11	25	10
	EVM0303/0,55	16	287																					Ø105	12	26	10
	EVM0304/0,75	16	318	260		176	129		250															Ø120	12	26	10
	EVM0305/1,1	16	339																					Ø120	13	27	10
	EVM0306/1,1	16	360																					Ø120	14	28	10
	EVM0307/1,5	16	391																					Ø120	14	34	10
	EVM0308/1,5	75	412	250				271,5		100	149	180	210	Ø25	Ø63	Ø85	Ø115	16	4	Ø14	Ø12	20		Ø140	14	34	10
	EVM0309/2,2	75	433	315		199	136		262															Ø140	15	35	10
	EVM0311/2,2	25	475																					Ø160	16	36	10
	EVM0312/2,2	25	496																					Ø160	17	37	10
EVM0313/3,7	25	537																					Ø160	18	57	10	
EVM0315/3,7	25	579	345		222	170		273															Ø160	21	60	10	
EVM0318/3,7	25	642																					Ø160	25	64	10	
EVM05	EVM0502/0,75	16	290	260		176	129		250															Ø120	12	26	10
	EVM0503/1,1	16	318																					Ø120	12	26	10
	EVM0504/1,5	16	356																					Ø140	13	33	10
	EVM0505/2,2	16	384	315		199	136		262															Ø140	14	34	10
	EVM0506/2,2	16	412					271,5																Ø140	14	34	10
	EVM0507/3,7	75	460							100	149	180	210	Ø32	Ø71	Ø100	Ø140	20	4	Ø14	Ø12	20		Ø160	15	54	10
	EVM0508/3,7	75	488	250																				Ø160	16	55	10
	EVM0510/3,7	25	544	345		222	170		273															Ø160	18	57	10
	EVM0511/3,7	25	572																					Ø160	22	61	10
	EVM0512/3,7	25	600																					Ø160	23	62	10
EVM0514/5,5	25	667																					Ø300	25	90	15	
EVM0516/5,5	25	723	373		270	192	351,5	297															Ø300	27	92	15	
EVM0519/7,5	25	807																					Ø300	29	94	15	
EVM10	EVM1002/1,5	16	343																					Ø140	18	38	10
	EVM1003/2,2	16	373	315		199	136		262															Ø140	20	40	10
	EVM1004/3,7	16	423					271,5																Ø160	22	61	10
	EVM1005/3,7	16	453	345		222	170		273															Ø160	23	62	10
	EVM1006/3,7	16	483																					Ø160	24	63	10
	EVM1008/5,5	80	554	280						130	190	215	250	Ø40	Ø79	Ø110	Ø150	21	4	Ø18	Ø12	20		Ø300	31	96	15
	EVM1010/7,5	25	614	373		270	192		297															Ø300	35	100	15
	EVM1011/7,5	25	644					351,5																Ø300	38	103	15
	EVM1012/7,5	25	674																					Ø300	43	108	15
	EVM1014/11	25	764	473		337	272		331															Ø350	46	184	20
EVM1016/11	25	824																					Ø350	48	186	20	
EVM18	EVM1801/2,2	16	373	315		199	136		262															Ø140	26	46	10
	EVM1802/3,7	16	383	345		222	170		273															Ø160	27	66	10
	EVM1803/5,5	16	444																					Ø300	29	94	15
	EVM1804/7,5	16	484	373		270	192		297															Ø300	31	96	15
	EVM1805/7,5	16	524																					Ø300	38	103	15
	EVM1806/11	90	594	300				351,5		130	190	215	250	Ø50	Ø92	Ø125	Ø165	21	4	Ø18	Ø12	20		Ø350	41	179	20
	EVM1807/11	25	634	473					331															Ø350	44	182	20
	EVM1808/15	25	674																					Ø350	44	182	20
	EVM1810/15	25	754			337	272																	Ø350	54	192	20
	EVM1811/18,5	25	794	518					450	461														Ø350	56	202	25
EVM1812/18,5	25	834																					Ø350	57	203	25	

외형도 Outline Drawing

60Hz

[EVM32/45/64]



외형 치수표 Outline Dimension

60Hz

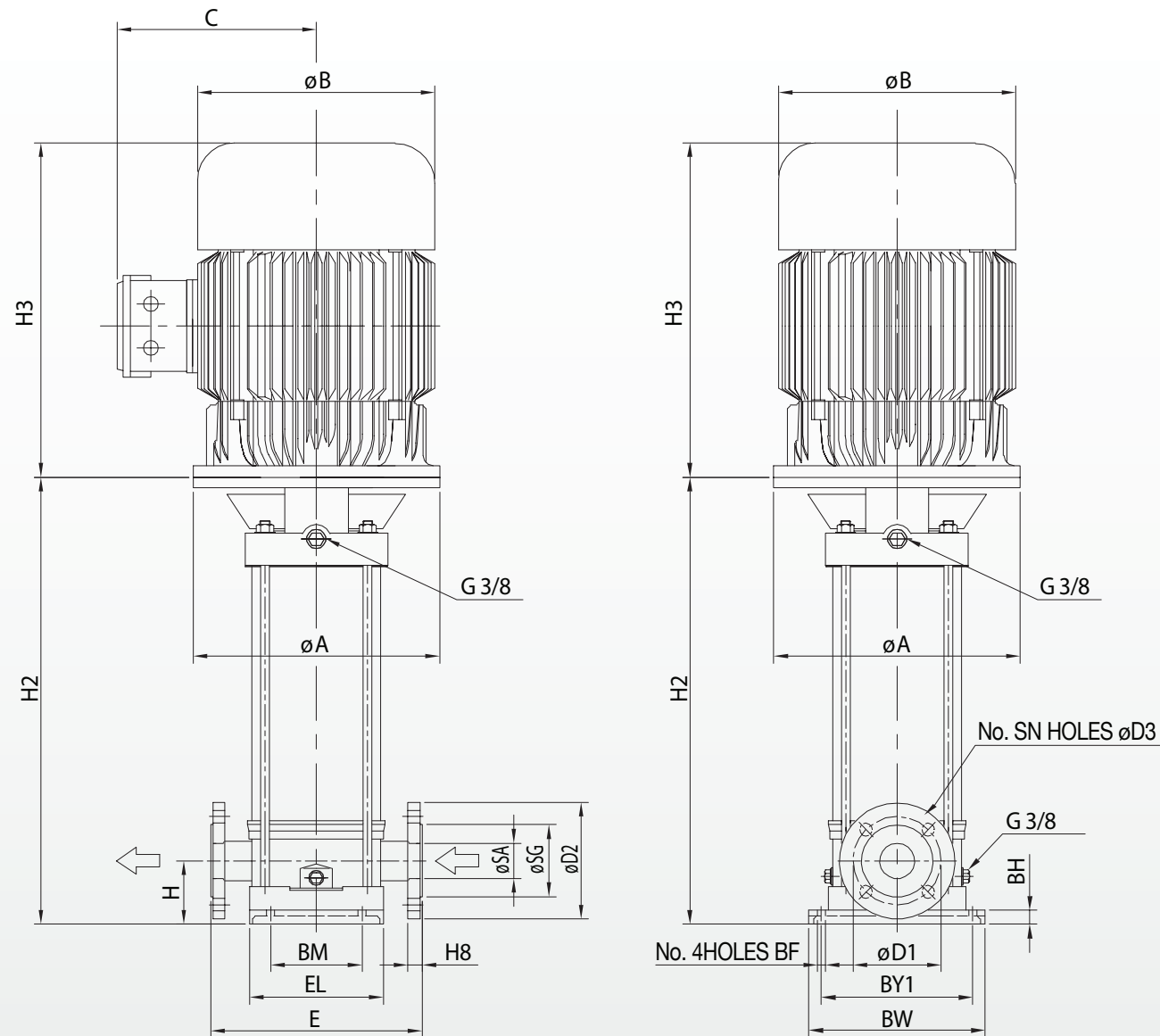
unit : mm

Pump Type	Pmax [bar]	Dimension																		중량 Weight [kg]*									
		H	H2	H3	E	B	C	G	F	BM	BL	BY1	BW	SA	SG	D1	D2	H8	SN	D3	BF	BH	A	Pump	Pump + Motor	Inverter			
EVM32	EVM3201-0/3.7	16	503	345	222	170	271.5	273											4				160	56	95	10			
	EVM3202-2/5.5		524	373	270	192	351.5																300	58	123	15			
	EVM3202-0/7.5		524	373	270	192	351.5	297																300	58	123	15		
	EVM3203-3/7.5		572	373	270	192	351.5																		74	139	15		
	EVM3203-0/11		703	473	337	272	351.5																		74	212	20		
	EVM3204-3/11		751	473	337	272	351.5																		77	215	20		
	EVM3204-0/15		751	473	337	272	351.5	331																	77	215	20		
	EVM3205-2/15		799	518	320	337	272	351.5		170	210	240	280	ø65	ø110	ø145	ø185	23			ø18	ø14	35	350	96	234	20		
	EVM3205-0/18.5		847	518	337	272	450																		96	242	25		
	EVM3206-3/18.5		847	518	337	272	450	461																	99	245	25		
EVM45	EVM4501-1/5.5	25	895	544	374	282	450																		99	260	25		
	EVM4501-0/7.5		895	544	374	282	450																		102	263	25		
	EVM4502-2/22		910	605	374	288	450																		105	287	25		
	EVM4502-0/30		958	605	374	288	450	479																	105	287	25		
	EVM4503-0/30		1006	605	374	288	450																		108	290	25		
	EVM4503-3/30		1054	605	374	288	450																		108	290	25		
	EVM4504-0/30		140	546	373	365	270	192	351.5	297															300	56	121	15	
	EVM4501-0/7.5		140	546	373	365	270	192	351.5																300	56	121	15	
	EVM4502-1/11		140	749	473	365	337	272	351.5																	58	196	20	
	EVM4502-0/15		140	749	473	365	337	272	351.5	331																58	196	20	
EVM64	EVM4503-2/15	16	140	822	473	365	337	272	351.5																74	212	20		
	EVM4503-1/18.5		140	822	518	365	337	272	450	461															74	220	25		
	EVM4503-0/22		140	822	544	365	374	282	450		190	251	266	331	ø80	ø120	ø160	ø200	20	8	ø18	ø14	45		74	235	25		
	EVM4504-2/22		140	894	544	365	374	282	450																	77	238	25	
	EVM4504-0/30		140	909	605	365	374	288	450	479																77	259	25	
	EVM4505-1/30		140	981	605	365	374	288	450																	96	278	25	
	EVM4505-0/37	25	140	981	690	365	404	340	-	-																96	376	-	
	EVM4506-1/37		140	1053	690	365	404	340	-	-																99	379	-	
	EVM6401-1/7.5		140	546	373	365	270	192	351.5	297																300	70	135	15
	EVM6401-0/11		140	677	473	365	337	272	351.5																	77	215	20	
EVM6402-2/15		140	749	473	365	337	272	351.5																	81	219	20		
EVM6402-1/18.5		140	749	518	365	337	272	450	461																94	240	25		
EVM64	EVM6402-0/22	16	140	749	544	365	374	282	450		190	251	266	331	ø100	ø140	ø180	ø220	20	8	ø18	ø14	45		94	255	25		
	EVM6403-3/22		140	821	544	365	374	282	450																	99	260	25	
	EVM6403-0/30		140	837	605	365	374	288	450	479																99	281	25	
	EVM6404-3/30		140	909	605	365	374	288	450																	108	290	25	
	EVM6404-1/37		140	909	690	365	404	340	-	-																108	388	-	

외형도 Outline Drawing

50Hz

[EVM03/05/10/18]



외형 치수표 Outline Dimension

50Hz

unit : mm

Pump Type	Pmax [bar]	Dimension																	중량 Weight [kg]						
		H	H2	H3	E	B	C	BM	BL	BY1	BW	SA	SG	D1	D2	H8	SN	D3	BF	BH	A	Pump	Pump + Motor		
EVM03	16	75	266																				11.3	17.1	
			287																					11.8	17.6
			308	215			142	114																12.3	18.5
			329																					12.8	19
			360																					13.7	22.1
		75	381	232			160	139																13.9	22.3
			423		250				100	149	180	210	G 1"	$\phi 63$	$\phi 85$	$\phi 115$	16	4	$\phi 14$	$\phi 12$	20		14.8	25.9	
			465																				16.2	27.3	
			517																				17.7	31.7	
			559	267			180	148															19.2	33.2	
EVM05	16	75	280																				11.5	17.3	
			308	215			142	114															12	18.2	
			346																				12.9	21.3	
			374	232			160	139															13.5	24.6	
			402																				14.1	25.2	
		75	440																				14.9	28.9	
			468																				15.5	29.5	
			534	267	250		180	148	100	149	180	210	$\phi 32$	$\phi 71$	$\phi 100$	$\phi 140$	20	4	$\phi 14$	$\phi 12$	20	17.9	33.9		
			562																				19	35	
			590																				19.7	35.7	
EVM10	16	80	656																			22	44.8		
			712																			23.3	46.1		
			768	306			196	155														28.7	51.5		
			796																			29.4	52.2		
			880																			31.2	54		
		25	947	328			220	161															35.4	74	
			333	232			160	139															18	26.4	
			363																				19.5	30.6	
			403																				21.9	35.9	
			443	267			180	148															22.5	38.5	
EVM18	16	90	473																			24	40		
			543																			30.6	53.4		
			603	306			196	155	130	190	215	250	$\phi 40$	$\phi 79$	$\phi 110$	$\phi 150$	21	4	$\phi 18$	$\phi 12$	20	31.5	54.3		
			633		280																	34	56.8		
			674																			39.3	77.9		
		25	734																				41.8	80.4	
			764	328			220	161															45.8	84.4	
			794																			47.8	88.2		
			854																			49.8	90.2		
			914																			49.5	90.2		
EVM18	25	90	1004	403			248	195													55.5	118			
			373	267			180	148														27.4	43.4		
			423	306			196	155														28.9	51.7		
			473																			31.4	54.2		
			524																			38.4	77		
		25	564	328			220	161	130	190	215	250	$\phi 50$	$\phi 92$	$\phi 125$	$\phi 165$	21	4	$\phi 18$	$\phi 12$	20	41.4	80		
			604																			43.9	84.3		
			644																			43.8	84.2		
			754	403			248	195														54.3	116.8		
			834																			57.3	119.8		
EVM18	25	90	914																		57.8	144.9			
			954	498			317	238													58.3	145.4			
			994																		61.3	148.4			

※ Motor : AEG Motor 기준임
based on AEG motor.
※ 인버터 타입은 별도 문의 요망
For inverter type, contact us.

