



HYLIC PUMP

Reliable Pumping Solutions
for a Sustainable Future

Model HVM/HVMF

Vertical Inline Multistage Pump

Model : HVM/HVMF



Summary

HVM/HVMF pumps are a new generation of high-efficiency, non-self-priming Vertical Inline Multistage centrifugal pumps. They are designed in accordance with European standards and feature a completely new industrial design. These pumps are energy-saving, low-noise, environmentally friendly, compact, aesthetically pleasing, lightweight, easy to maintain, and highly reliable.

Application

HVM/HVMF pumps are designed for a wide range of applications, from pumping potable water to handling industrial liquids. They are suitable for liquids with different temperatures, flow rates, and pressure ranges. The HVM series is ideal for non-corrosive liquids, while the HVMF series is suitable for lightly corrosive liquids.

Typical applications include :

- **Boosting** : Water filtration and transfer in water treatment plants, zone-based water distribution, main pipeline pressurization, and water boosting for high-rise buildings.
- **Pressurization** : Circulating water systems, cleaning systems, high-pressure flushing systems, and fire-fighting systems.
- **HVAC** : Air conditioning systems.
- **Water treatment** : Ultrafiltration systems, reverse osmosis (R/O) systems, distillation systems, separators, and swimming pools.

Working conditions

Thin, clean, non-flammable, non-explosive, free of solids and fibers, and physically and chemically similar to water.

- **Liquid temperature :**
 - *Standard type* : -15°C to 70°C
 - *Hot water type* : -15°C to 120°C
- **Ambient temperature** : Up to +40°C
- **Altitude** : Up to 1000 m

Motor

Totally enclosed, fan-cooled, 2-pole standard motor

- **Protection class** : IP55
- **Insulation class** : F
- **Voltage (50Hz)** :
 - *Single-phase* : 1×200–230/240V
 - *Three-phase* :
 - » 3×200–220/346–380V
 - » 3×220–240/380–415V

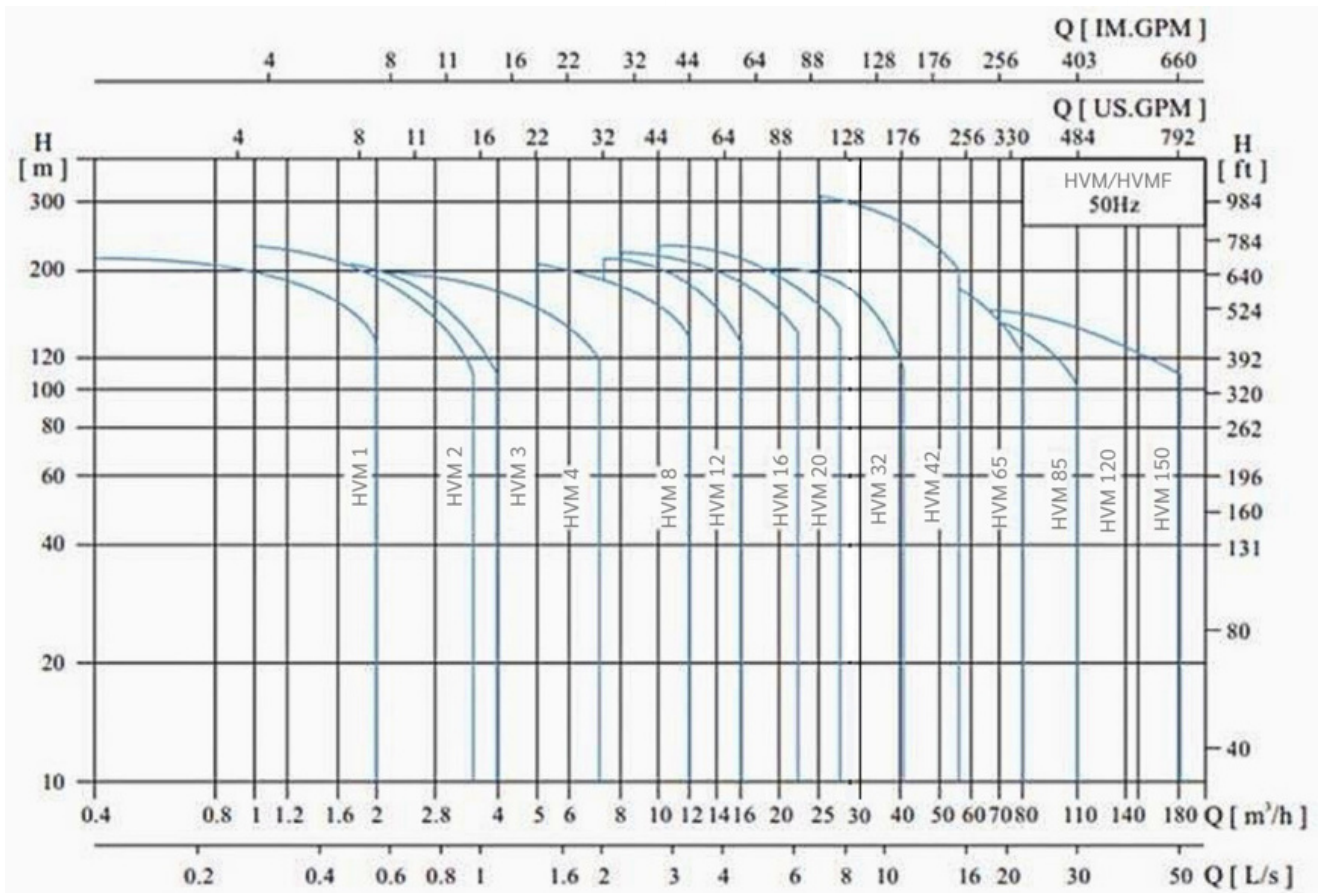
Performance curve

The following conditions apply to the performance curve below :

1. All curves are based on measured values at 50 Hz, with a constant motor speed of 2900 rpm or 2950 rpm.
2. Curve tolerance complies with ISO 9906:2012, Grade 3B.
3. Measurements were conducted using 20°C air-free water with a kinematic viscosity of 1 mm²/s.
4. Pump operation should follow the performance range indicated by the bold curve to avoid overheating from too low flow rates or motor overload from excessively high flow rates.



Performance range



Min.inlet pressure

In case that the pressure in pump is lower than the steam pressure used to convey liquid, the cavitations will occur. To avoid cavitations, a minimum pressure at the inlet side of the pump shall be guaranteed. The maximum suction stroke can be calculated with following formula :

$$H = P_b \times 10.2 - NPSH - H_f - H_v - H_s$$

P_b = Barometric pressure in bar.

(Barometric pressure can be set to 1 bar).

In a closed system, P_b means system pressure [bar].

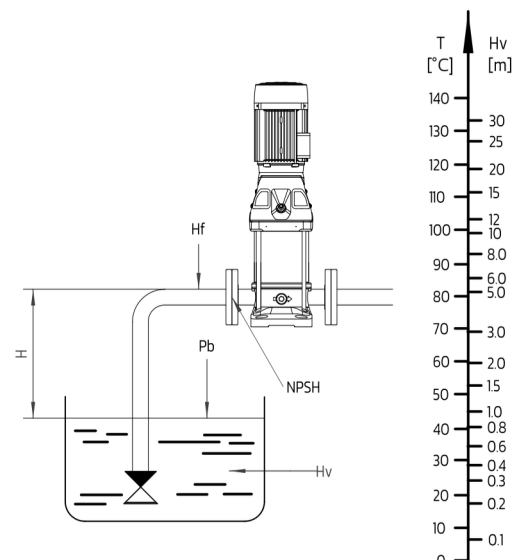
$NPSH$ = Net Positive Suction Head [m].

(It can be read from the point of possible max. flow rate shown on NPSH curve.)

$$\begin{aligned} H_f &= \text{Pipe friction loss at the inlet [m].} \\ H_v &= \text{Vapour pressure [m].} \\ H_s &= \text{Safety margin = minimum 0.5 meters head.} \end{aligned}$$

If the "H" calculated is positive, the pump may run under the max. suction stroke H.

If the "H" calculated is negative, A head of minimum inlet pressure H is required.

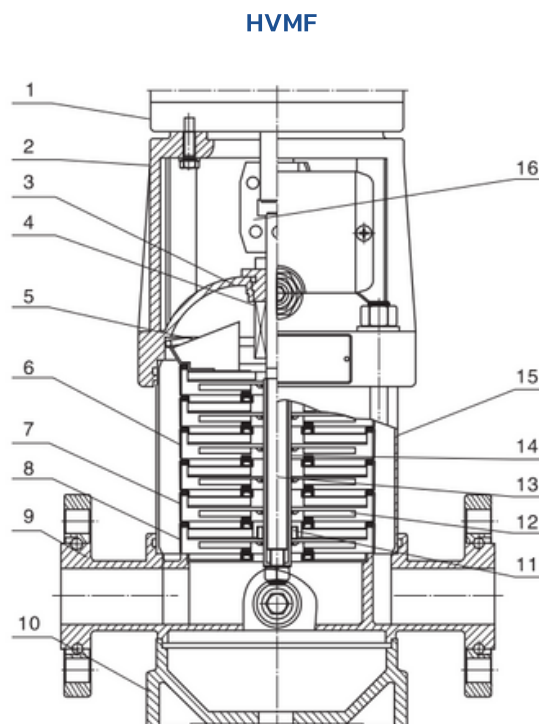
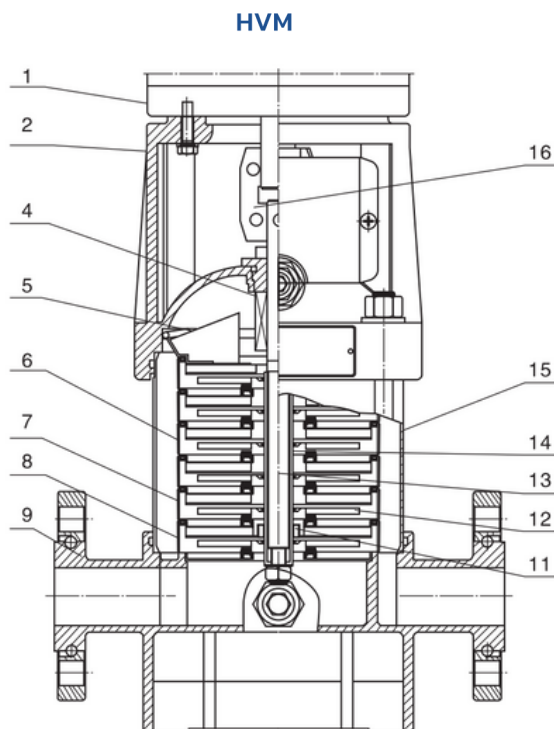


Product range

Description	HVM 1	HVM 2	HVM 3	HVM 4	HVM 8	HVM 12	HVM 16	HVM 20	HVM 32	HVM 42	HVM 65	HVM 85	HVM 120	HVM 150
Rated flow (m³/h)	1	2	3	4	8	12	16	20	32	42	65	85	120	150
Rated flow (L/s)	0.28	0.56	0.83	1.1	2.2	3.3	4.4	5.6	8.9	11.7	18	24	33	41.6
Range of flow (m³/h)	0.4-2	1-3.5	1.2-4	1.5-7	5-12	7-16	8-22	10-28	16-40	25-55	30-80	50-110	60-150	80-180
Range of flow (L/s)	0.11-0.56	0.28-0.97	0.33-1.1	0.42-1.9	1.4-3.3	1.9-4.4	2.2-6.1	2.8-7.8	4.4-11.1	6.9-15.3	8.3-22.2	13.8-30.5	16.7-41.7	22-50
Maximum pressure (bar)	21	23	22	21	21	22	22	23	26	30	22	17	16	16
Power of motor (kW)	0.37-2.2	0.37-3	0.37-3	0.37-4	0.75-7.5	1.5-11	2.2-15	1.1-18.5	1.5-30	3.0-45	4.0-45	5.5-45	11-75	11-75
Range of temperature (°C)	-15~+120													
Maximum efficacy (%)	44	46	54	59	64	63	66	69	76	78	80	81	74	73
Type														
HVM	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HVMF	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HVM HVMFpipelinelink														
DIN flange	DN25	DN25	DN25	DN32	DN40	DN50	DN50	DN50	DN65	DN80	DN100	DN100	DN125	DN125
Elliptical flange	G1	G1	G1	G1 ¼	G1 ½									
HVMF HVMFpipelinelink														
DIN flange	DN25	DN25	DN25	DN32	DN40	DN50	DN50	DN50	DN65	DN80	DN100	DN100	DN125	DN125
Ferrule joint	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Pipe thread	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Outline Drawing & Dimensions Model : HVM/HVMF

HVM, HVMF 1, 2, 3, 4 Structure drawing



HVM 1, 2, 3, 4 Material list

No	Name	Material	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
4	Mechanical seal	Tungsten carbide / Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Cast iron	ASTM25B
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel / Powder metallurgy	

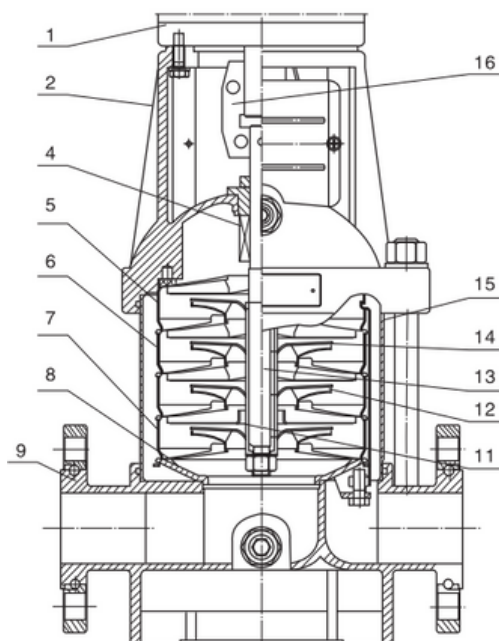
HVMF 1, 2, 3, 4 Material list

No	Name	Material	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
3	Lining	Stainless steel	AISI304
4	Mechanical seal	Tungsten carbide/ Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Stainless steel	AISI304
10	Base plate	Cast aluminum	
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel/ Powder metallurgy	

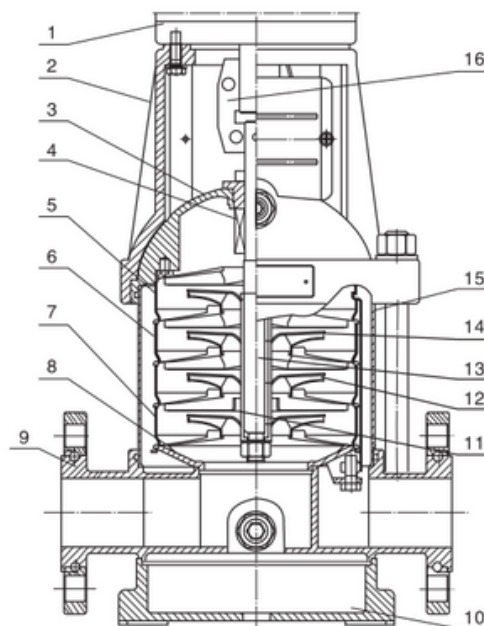
Outline Drawing & Dimensions Model : HVM/HVMF

HVM, HVMF 8, 12, 16, 20 Structure drawing

HVM



HVMF



HVM 8, 12, 16, 20 Material list

No	Name	Material	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
4	Mechanical seal	Tungsten carbide/ Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Cast iron	ASTM25B
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel/ Powder metallurgy	

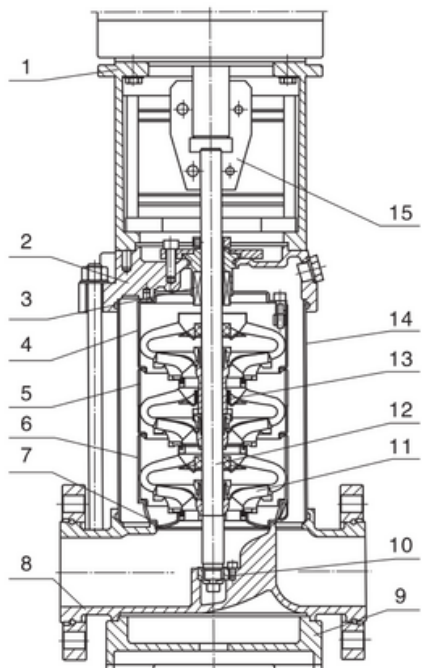
HVMF 8, 12, 16, 20 Material list

No	Name	Material	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
3	Lining	Stainless steel	AISI304
4	Mechanical seal	Tungsten carbide/ Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Stainless steel	AISI304
10	Base plate	Cast aluminum	
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel/ Powder metallurgy	

Outline Drawing & Dimensions Model : HVM/HVMF

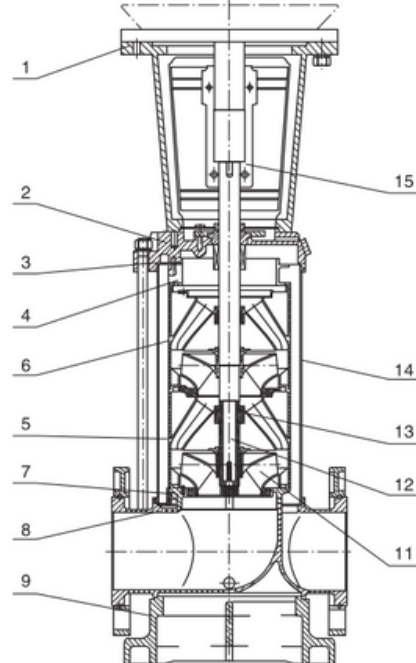
HVM, HVMF 32, 42, 65, 85, 120, 150 Structure drawing

HVM, HVMF 32, 42, 65, 85



No	Name	Material	AISI/ASTM
1	Motor		
2	Pump head	Stainless steel	AISI304
3	Mechanical seal	Tungsten carbide/ Carbon	
4	Top diffuser	Stainless steel	AISI304
5	Diffuser	Stainless steel	AISI304
6	Support diffuser	Stainless steel	AISI304
7	Inducer	Stainless steel	AISI304
8	Inlet & outlet chamber	Stainless steel	AISI304
9	Base plate	Cast iron	ASTM25B
10	Bearing	Tungsten carbide	
11	Impeller	Stainless steel	AISI304
12	Shaft	Stainless steel	AISI304
13	Intermediate bearing	Tungsten carbide	
14	Cylinder	Stainless steel	AISI304
15	Coupling	Carbon steel/ Powder metallurgy	

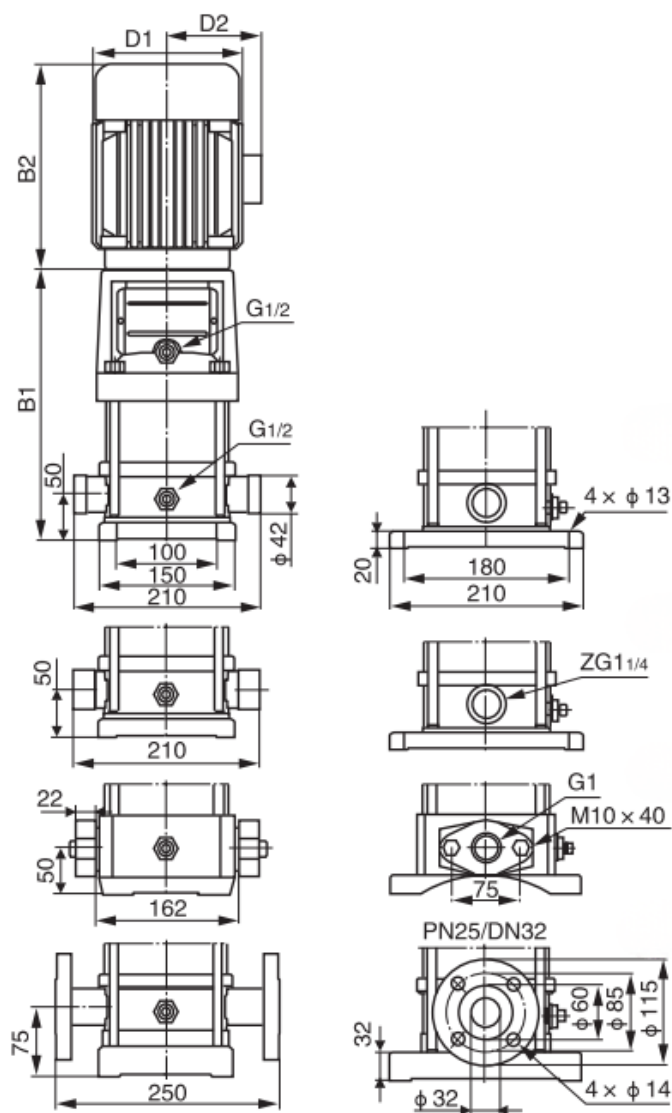
HVM, HVMF 120, 150



No	Name	Material	AISI/ASTM
1	Motor		
2	Pump head	Stainless steel	AISI304
3	Mechanical seal	Tungsten carbide/ Carbon	
4	Discharge	Stainless steel	AISI304
5	Support diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Inducer	Stainless steel	AISI304
8	Inlet & outlet chamber	Stainless steel	AISI304
9	Base plate	Cast iron	ASTM25B
11	Impeller	Stainless steel	AISI304
12	Shaft	Stainless steel	AISI304
13	Bearing	Tungsten carbide	
14	Cylinder	Stainless steel	AISI304
15	Coupling	Carbon steel/ Powder metallurgy	AISI304

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 1 Installation drawing



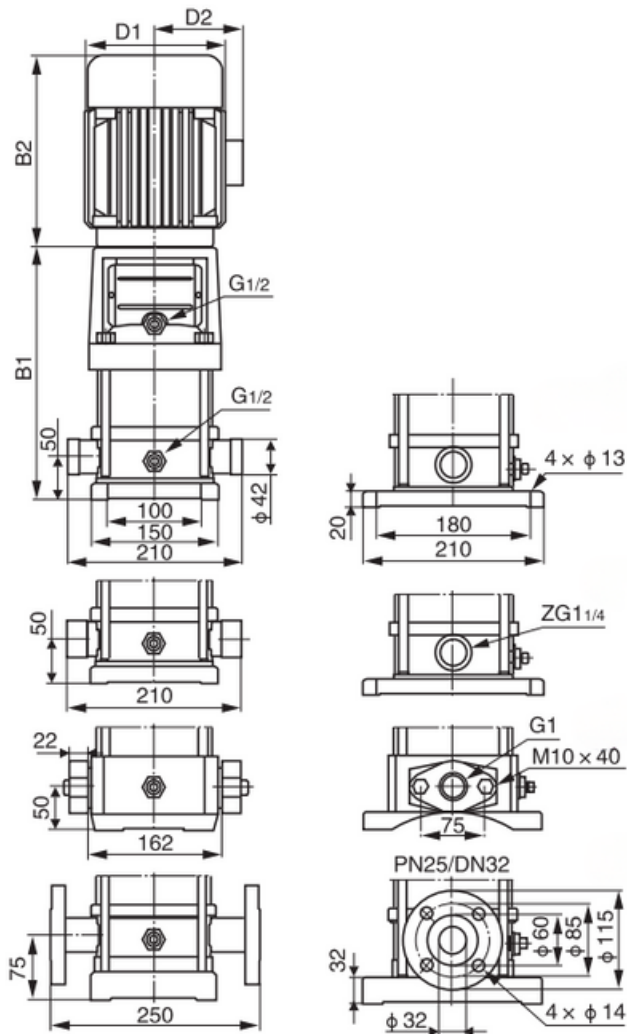
Dimension and weight

Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 1-2	258	210	468	148	117	20
HVM 1-3	276	210	486	148	117	20
HVM 1-4	294	210	504	148	117	20
HVM 1-5	312	210	522	148	117	20
HVM 1-6	330	210	540	148	117	20
HVM 1-7	348	210	558	148	117	20
HVM 1-8	366	210	576	148	117	22
HVM 1-9	384	210	594	148	117	22
HVM 1-10	402	210	612	148	117	22
HVM 1-11	420	210	630	148	117	22
HVM 1-12	448	245	693	170	142	25
HVM 1-13	466	245	711	170	142	25
HVM 1-15	502	245	747	170	142	25
HVM 1-17	538	245	783	170	142	28
HVM 1-19	574	245	819	170	142	28
HVM 1-21	610	245	855	170	142	30
HVM 1-23	646	245	891	170	142	33
HVM 1-25	692	290	982	190	155	40
HVM 1-27	728	290	1018	190	155	40
HVM 1-30	782	290	1072	190	155	40
HVM 1-33	836	290	1126	190	155	45
HVM 1-36	890	290	1180	190	155	45

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 2 Installation drawing

Dimension and weight

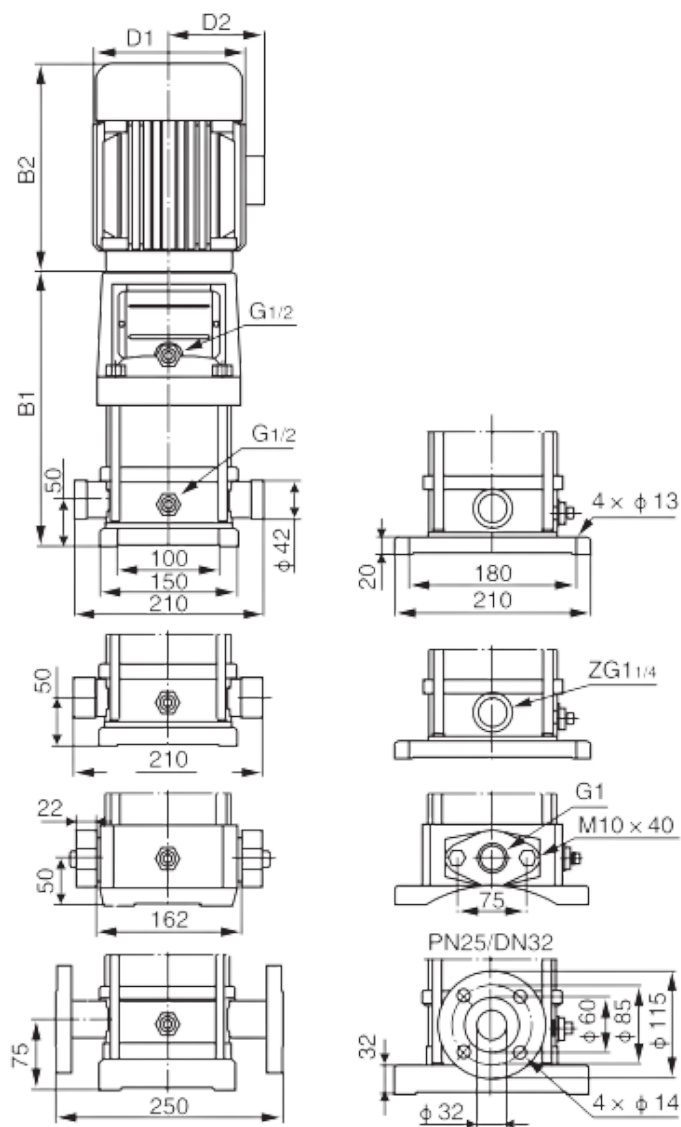


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 2-2	258	210	468	148	117	20
HVM 2-3	276	210	486	148	117	20
HVM 2-4	294	210	504	148	117	20
HVM 2-5	312	210	522	148	117	20
HVM 2-6	340	245	585	170	142	25
HVM 2-7	358	245	603	170	142	25
HVM 2-9	394	245	639	170	142	30
HVM 2-11	430	245	675	170	142	30
HVM 2-13	476	290	766	190	155	35
HVM 2-15	512	290	802	190	155	35
HVM 2-18	566	290	856	190	155	40
HVM 2-22	638	290	928	190	155	45
HVM 2-26	720	315	1035	197	165	50

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 3 Installation drawing

Dimension and weight

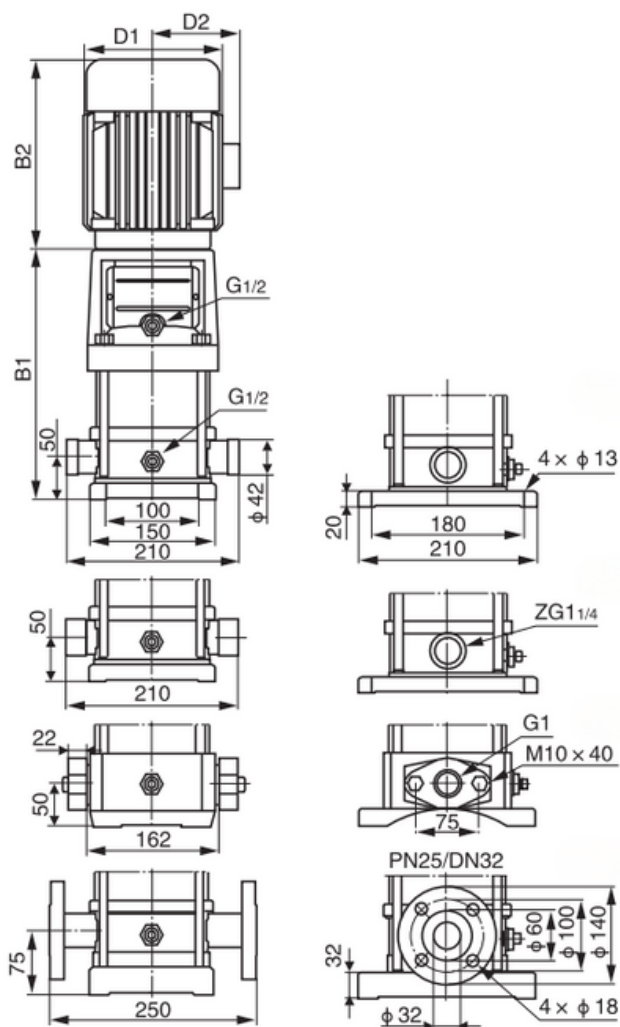


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 3-2	258	210	468	148	117	20
HVM 3-3	276	210	486	148	117	20
HVM 3-4	294	210	504	148	117	20
HVM 3-5	312	210	522	148	117	20
HVM 3-6	330	210	540	148	117	22
HVM 3-7	348	210	558	148	117	22
HVM 3-8	376	245	621	170	142	22
HVM 3-9	394	245	639	170	142	22
HVM 3-10	412	245	657	170	142	22
HVM 3-11	430	245	675	170	142	25
HVM 3-12	448	245	693	170	142	25
HVM 3-13	466	245	711	170	142	25
HVM 3-15	502	245	747	170	142	25
HVM 3-17	548	290	838	190	155	30
HVM 3-19	584	290	874	190	155	35
HVM 3-21	620	290	910	190	155	35
HVM 3-23	656	290	946	190	155	40
HVM 3-25	692	290	982	190	155	40
HVM 3-27	728	290	1018	190	155	40
HVM 3-29	764	290	1054	190	155	40
HVM 3-31	810	315	1125	197	165	45
HVM 3-33	846	315	1161	197	165	50
HVM 3-36	900	315	1215	197	165	50

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 4 Installation drawing

Dimension and weight



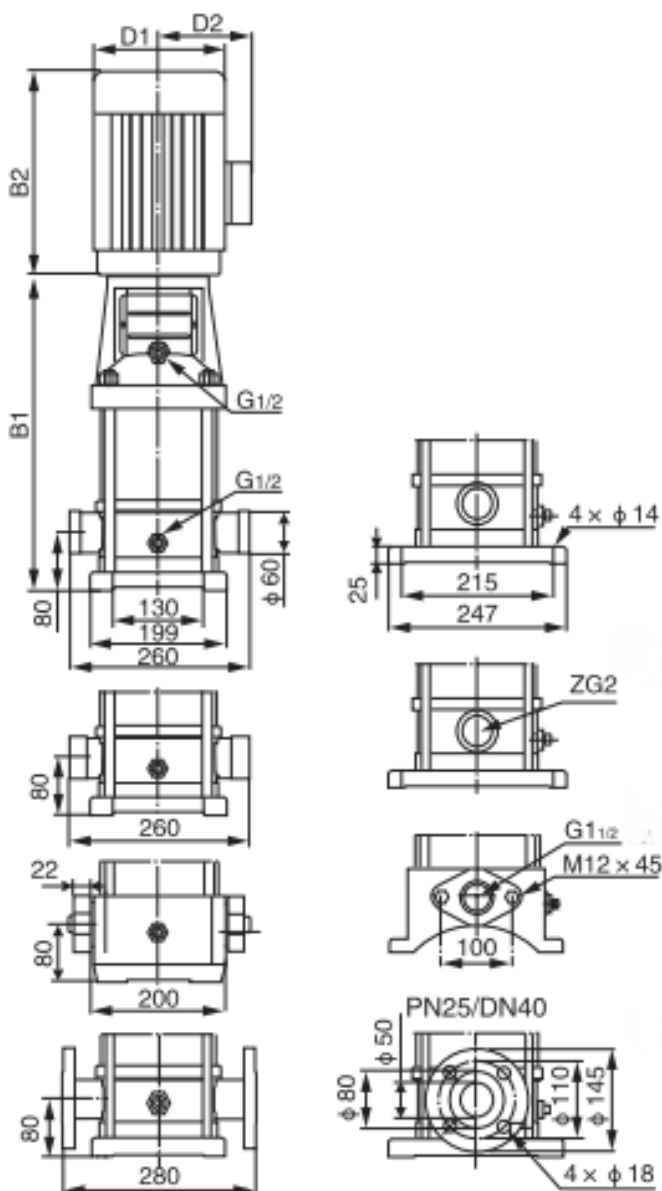
Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 4-2	276	210	486	148	117	20
HVM 4-3	303	210	513	148	117	20
HVM 4-4	340	245	585	170	142	20
HVM 4-5	367	245	612	170	142	25
HVM 4-6	394	245	639	170	142	25
HVM 4-7	431	290	721	190	155	30
HVM 4-8	458	290	748	190	155	30
HVM 4-10	512	290	802	190	155	30
HVM 4-12	566	290	856	190	155	35
HVM 4-14	630	315	945	197	165	35
HVM 4-16	684	315	999	197	165	40
HVM 4-19	765	335	1100	230	188	45
HVM 4-22	846	335	1181	230	188	50

Outline Drawing & Dimensions

Model : HVM/HVMF

HVM/HVMF 8 Installation drawing

Dimension and weight

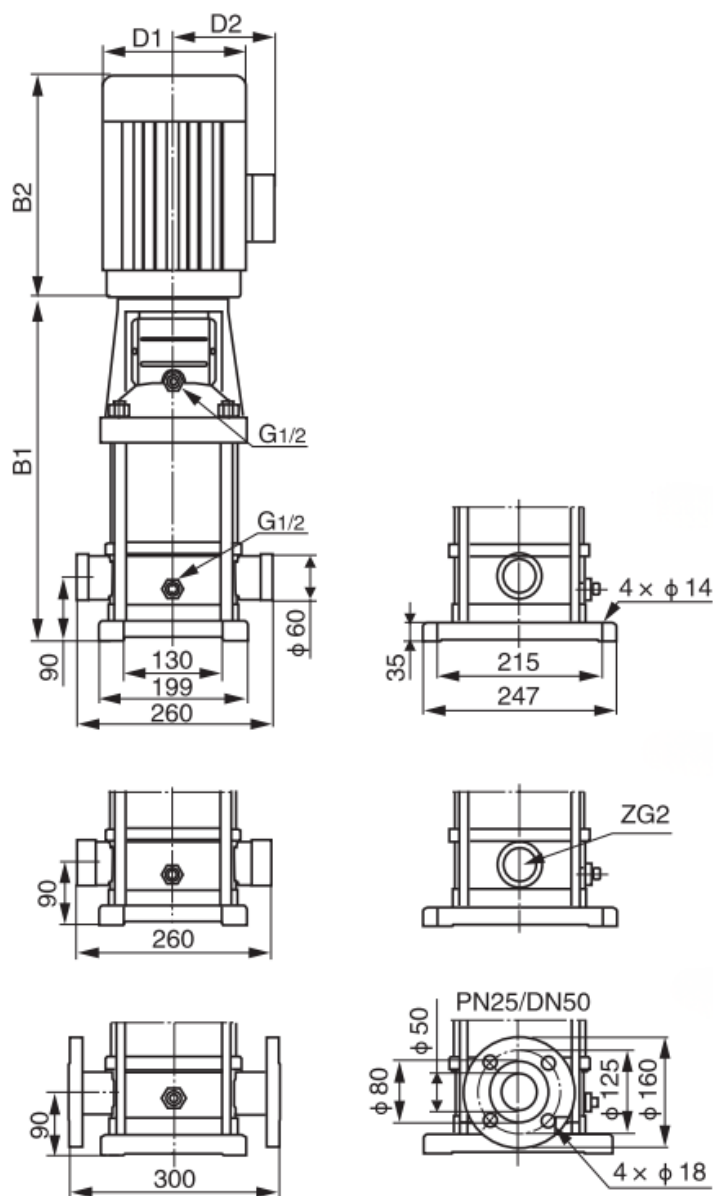


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 8-2/1	347	245	592	170	142	22
HVM 8-2	347	245	592	170	142	22
HVM 8-3	377	245	622	170	142	32
HVM 8-4	417	290	707	190	155	32
HVM 8-5	447	290	737	190	155	42
HVM 8-6	477	290	767	190	155	42
HVM 8-8	547	315	862	197	165	47
HVM 8-10	607	335	942	230	188	57
HVM 8-12	667	335	1002	230	188	57
HVM 8-14	747	430	1177	260	208	82
HVM 8-16	807	430	1237	260	208	82
HVM 8-18	867	430	1297	260	208	92
HVM 8-20	927	430	1357	260	208	92

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 12 Installation drawing

Dimension and weight

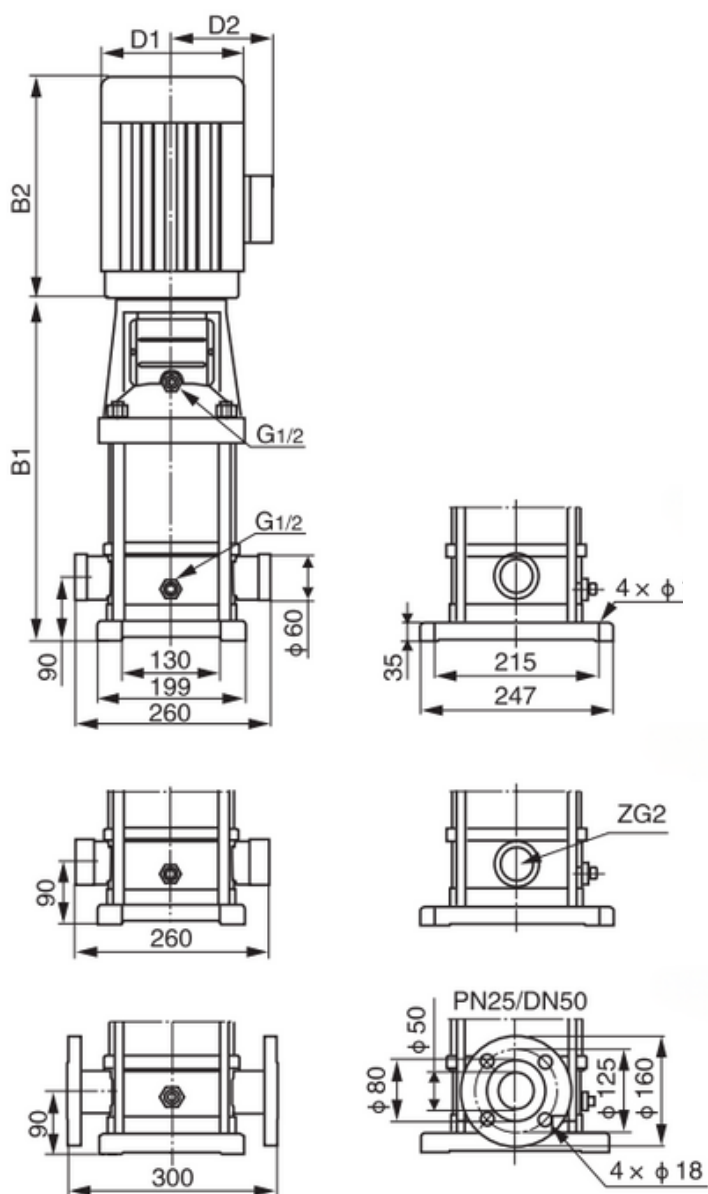


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 12-2	367	290	657	190	155	36
HVM 12-3	397	290	687	190	155	39
HVM 12-4	437	315	752	197	165	46
HVM 12-5	467	315	782	197	165	47
HVM 12-6	497	335	832	230	188	57
HVM 12-7	547	430	977	260	208	75
HVM 12-8	577	430	1007	260	208	75
HVM 12-9	607	430	1037	260	208	77
HVM 12-10	637	430	1067	260	208	77
HVM 12-12	697	430	1127	260	208	79
HVM 12-14	845	490	1335	330	255	150
HVM 12-16	905	490	1395	330	255	150
HVM 12-18	965	490	1455	330	255	152

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 16 Installation drawing

Dimension and weight

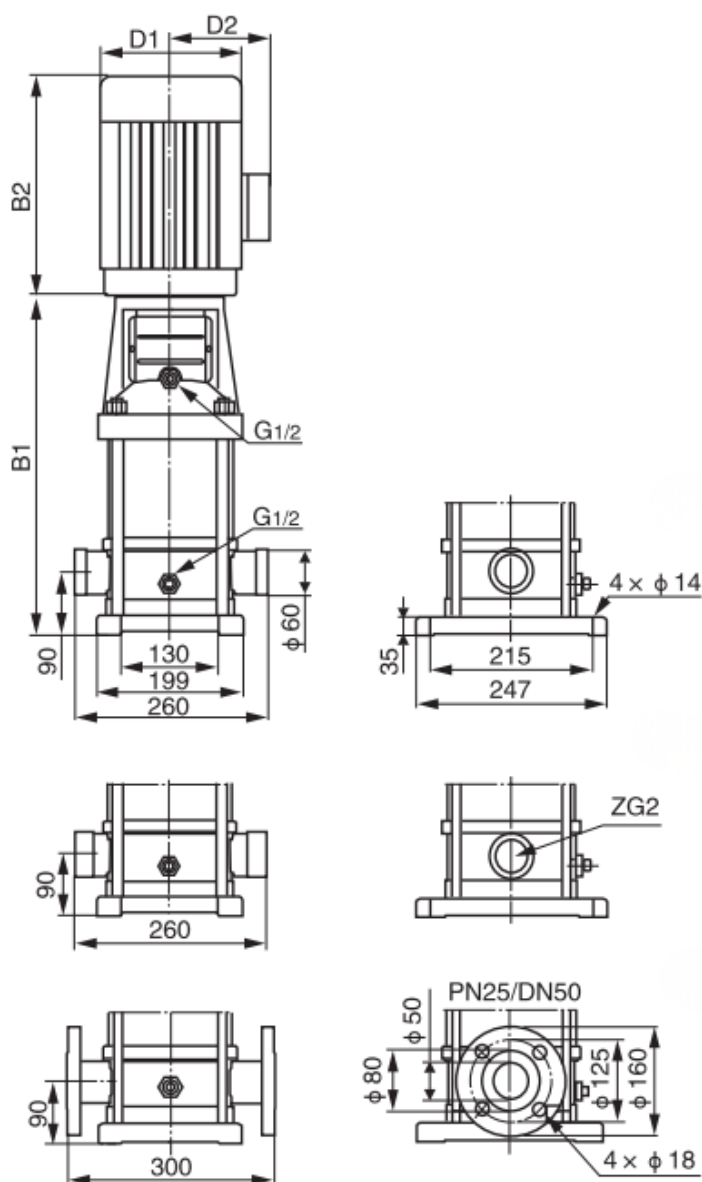


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 16-2	397	290	687	190	155	42
HVM 16-3	452	315	767	197	165	52
HVM 16-4	497	335	832	230	188	57
HVM 16-5	562	430	992	260	208	72
HVM 16-6	607	430	1037	260	208	77
HVM 16-7	652	430	1082	260	208	82
HVM 16-8	697	430	1127	260	208	82
HVM 16-10	875	490	1365	330	255	142
HVM 16-12	965	490	1455	330	255	147
HVM 16-14	1055	490	1545	330	255	162
HVM 16-16	1145	490	1635	330	255	167

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 20 Installation drawing

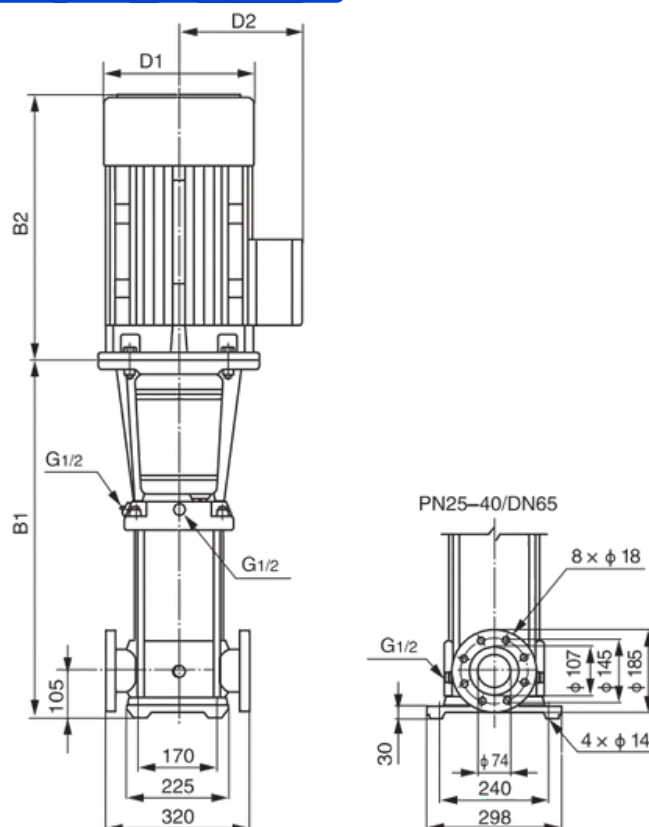
Dimension and weight



Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 20-1	387	245	632	170	142	32
HVM 20-2	397	290	687	190	155	43
HVM 20-3	452	335	787	230	188	57
HVM 20-4	517	430	947	260	208	72
HVM 20-5	562	430	992	260	208	74
HVM 20-6	607	430	1037	260	208	82
HVM 20-7	652	430	1082	260	208	84
HVM 20-8	785	490	1275	330	255	140
HVM 20-10	875	490	1365	330	255	145
HVM 20-12	965	490	1455	330	255	160
HVM 20-14	1055	490	1545	330	255	165
HVM 20-17	1190	550	1740	330	255	190

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 32 Installation drawing



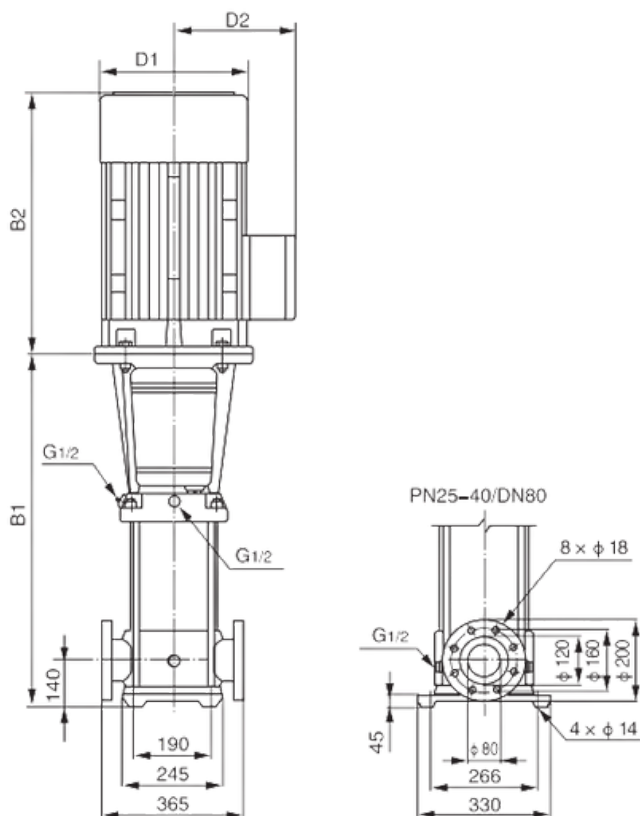
Dimension and weight

Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 32-10-1/HVM 32-10	505	290	795	1190	155	68/71
HVM 32-20-2/HVM 32-20	575	315/335	890/910	197/230	165/180	78/84
HVM 32-30-2/HVM 32-30	645	430	1075	260	208	93
HVM 32-40-2/HVM 32-40	715	430	1145	260	208	102
HVM 32-50-2/HVM 32-50	890	490	1380	330	255	172
HVM 32-60-2/HVM 32-60	960	490	1450	330	255	176
HVM 32-70-2/HVM 32-70	1030	490	1520	330	255	188
HVM 32-80-2/HVM 32-80	1100	490	1590	330	255	192
HVM 32-90-2/HVM 32-90	1170	550	1720	330	255	218
HVM 32-100-2/HVM 32-100	1240	550	1790	330	255	222
HVM 32-110-2/HVM 32-110	1310	590	1900	360	285	259
HVM 32-120-2/HVM 32-120	1380	590	1970	360	285	263
HVM 32-130-2/HVM 32-130	1450	660	2110	400	310	327
HVM 32-140-2/HVM 32-140	1520	660	2180	400	310	331

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 42 Installation drawing

Dimension and weight

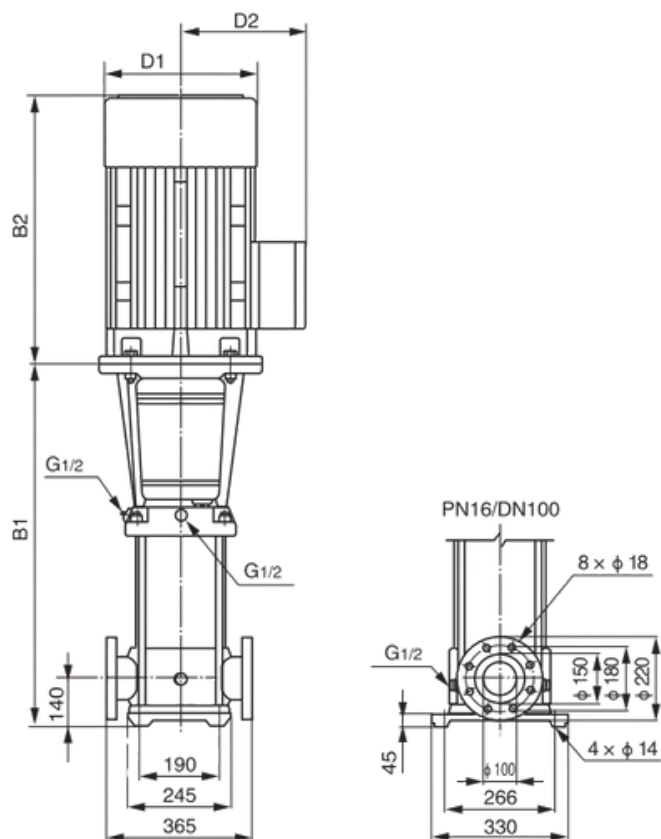


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 42-10-1	561	315/335	876/896	197/230	165/188	86/92
HVM 42-10						
HVM 42-20-2	641	430	1071	260	208	102/107
HVM 42-20						
HVM 42-30-2	826	490	1316	330	255	175
HVM 42-30						
HVM 42-40-2	906	490	1396	330	255	187
HVM 42-40						
HVM 42-50-2	986	550	1536	330	255	208
HVM 42-50						
HVM 42-60-2	1066	590	1656	360	285	251
HVM 42-60						
HVM 42-70-2	1146	660	1806	400	310	315
HVM 42-70						
HVM 42-80-2	1226	660	1886	400	310	319
HVM 42-80						
HVM 42-90-2	1306	660	1966	400	310	323/343
HVM 42-90						
HVM 42-100-2	1386	660	2046	400	310	347
HVM 42-100						
HVM 42-110-2	1466	700	2166	450	345	413
HVM 42-110						
HVM 42-120-2	1546	700	2246	450	345	417
HVM 42-120						
HVM 42-130-2	1626	700	2326	450	345	421

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 65 Installation drawing

Dimension and weight

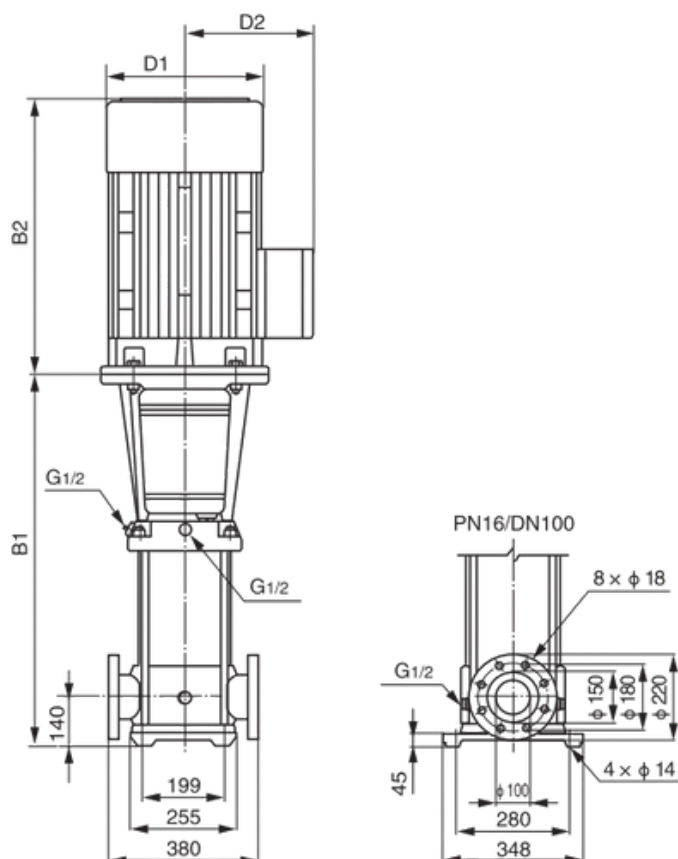


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 65-10-1	561	335	896	230	188	105
HVM 65-10	561	430	991	260	208	110
HVM 65-20-2	644	430	1074	260	208	120
HVM 65-20-1	754	490	1244	330	255	155
HVM 65-20	754	490	1244	330	255	155
HVM 65-30-2	836	490	1326	330	255	195
HVM 65-30-1	836	490	1326	330	255	195
HVM 65-30	836	550	1386	330	255	205
HVM 65-40-2	919	550	1469	330	255	208
HVM 65-40-1	919	590	1509	360	285	260
HVM 65-40	919	590	1509	360	285	260
HVM 65-50-2	1001	660	1661	400	310	345
HVM 65-50-1	1001	660	1661	400	310	345
HVM 65-50	1001	660	1661	400	310	345
HVM 65-60-2	1084	660	1744	400	310	350
HVM 65-60-1	1084	660	1744	400	310	370
HVM 65-60	1084	660	1744	400	310	370
HVM 65-70-2	1166	660	1826	400	310	375
HVM 65-70-1	1166	660	1826	400	310	375
HVM 65-70	1166	700	1866	460	340	435
HVM 65-80-2	1248	700	1948	460	340	440
HVM 65-80-1	1248	700	1948	460	340	440

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 85 Installation drawing

Dimension and weight

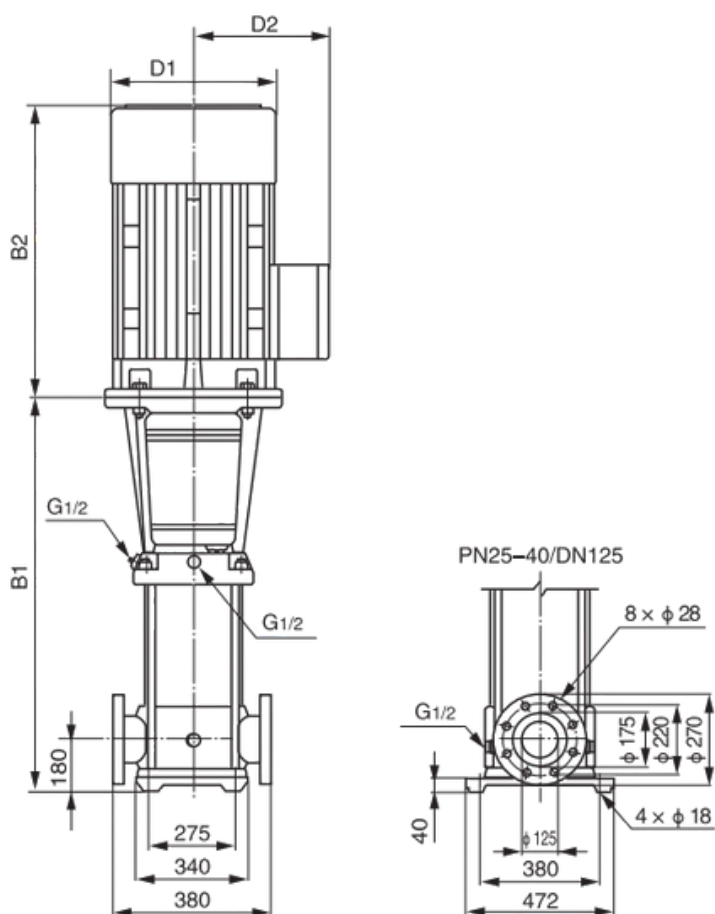


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 85-10-1	571	430	1001	260	208	120
HVM 85-10	571	430	1001	260	208	122
HVM 85-20-2	773	490	1263	330	255	165
HVM 85-20	773	490	1263	330	255	198
HVM 85-30-2	865	550	1415	330	255	212
HVM 85-30	865	590	1455	360	285	265
HVM 85-40-2	957	660	1617	400	310	348
HVM 85-40	957	660	1617	400	310	348
HVM 85-50-2	1049	660	1709	400	310	375
HVM 85-50	1049	660	1709	440	310	375
HVM 85-60-2	1141	700	1841	460	340	438
HVM 85-60	1141	700	1841	460	340	438

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 120 Installation drawing

Dimension and weight

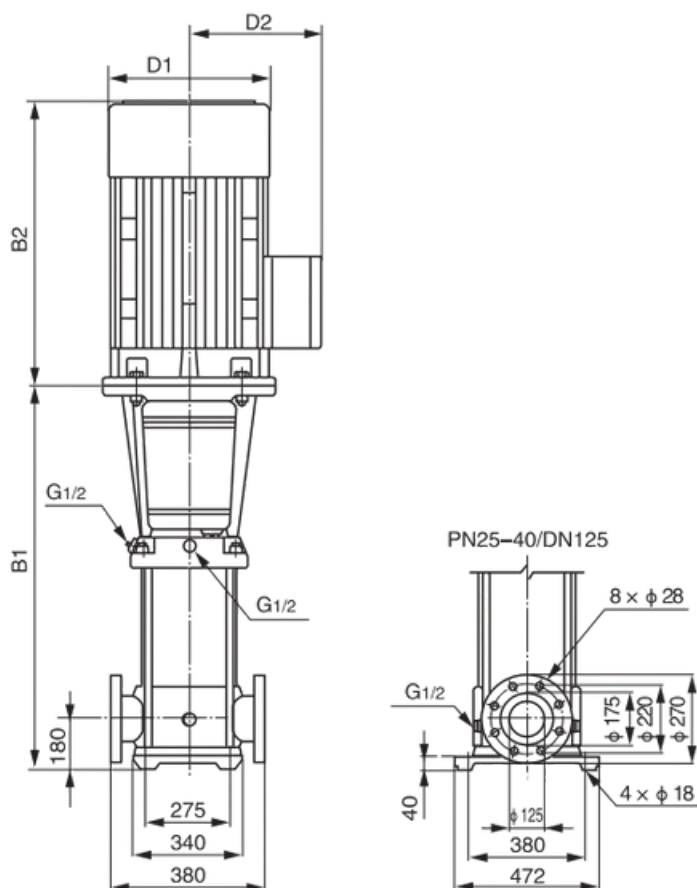


Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 120-10	840	490	1330	330	255	230
HVM 120-20-2	1000	490	1490	330	255	245
HVM 120-20-1	1000	550	1550	330	255	250
HVM 120-20	1000	590	1590	360	285	285
HVM 120-30-2	1160	660	1820	400	310	360
HVM 120-30-1	1160	660	1820	400	310	360
HVM 120-30	1160	660	1820	400	310	360
HVM 120-40-2	1320	660	1980	400	310	400
HVM 120-40-1	1320	660	1980	400	310	400
HVM 120-40	1320	700	2020	460	340	460
HVM 120-50-2	1480	700	2180	460	340	470
HVM 120-50-1	1480	700	2180	460	340	470
HVM 120-50	1510	770	2280	540	370	575
HVM 120-60-2	1670	770	2440	540	370	585
HVM 120-60-1	1670	770	2440	540	370	585
HVM 120-60	1670	845	2515	580	410	705
HVM 120-70-2	1830	845	2675	580	410	715
HVM 120-70-1	1830	845	2675	580	410	715
HVM 120-70	1830	845	2675	580	410	715

Outline Drawing & Dimensions Model : HVM/HVMF

HVM/HVMF 150 Installation drawing

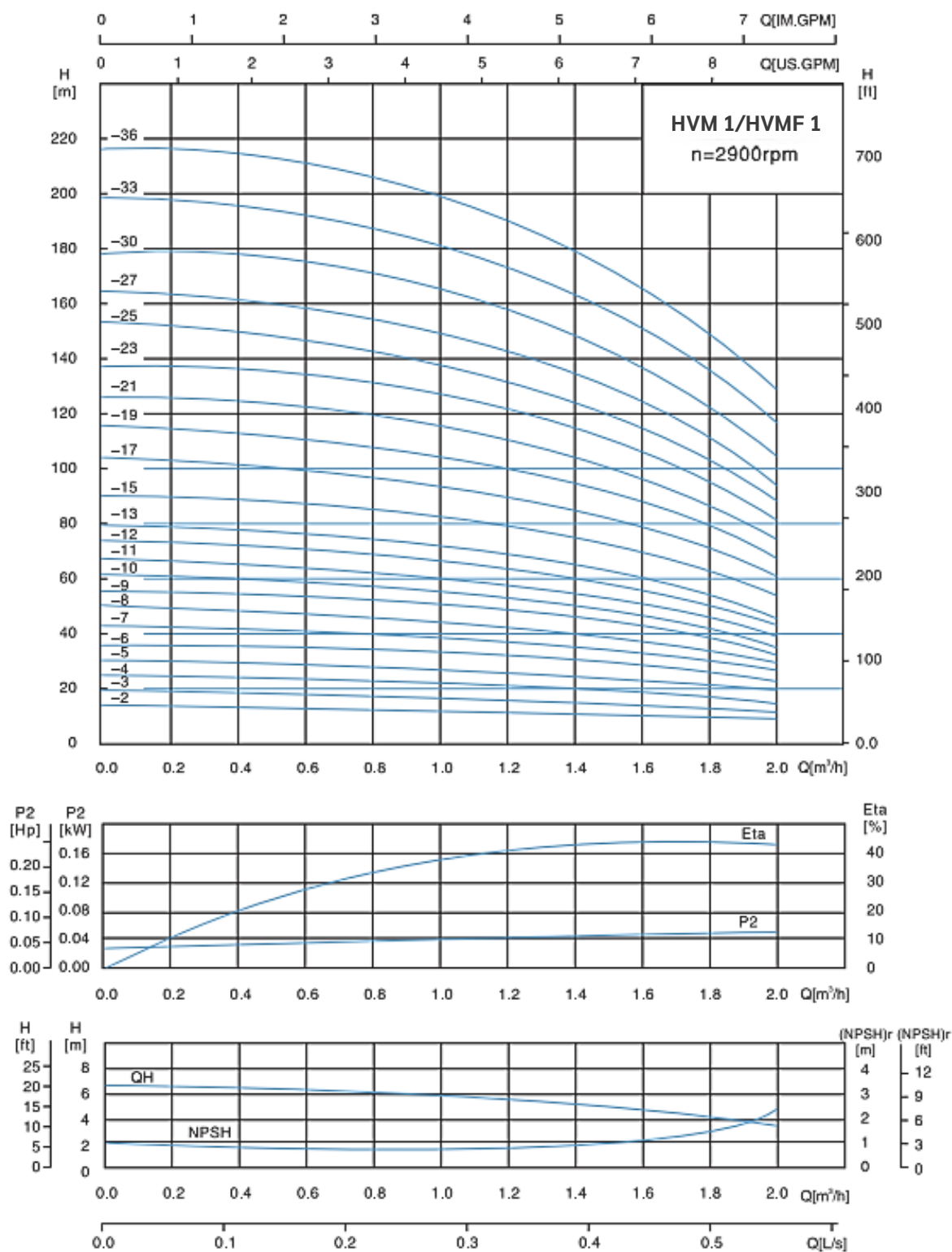
Dimension and weight



Type	Dimension (mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
HVM 150-10-1	840	490	1330	330	255	230
HVM 150-10	840	490	1330	330	255	235
HVM 150-20-2	1000	550	1550	330	255	250
HVM 150-20-1	1000	590	1590	360	285	295
HVM 150-20	1000	660	1660	400	310	350
HVM 150-30-2	1160	660	1820	400	310	360
HVM 150-30-1	1160	660	1820	400	310	360
HVM 150-30	1160	660	1820	400	310	385
HVM 150-40-2	1320	700	2020	460	340	460
HVM 150-40-1	1320	700	2020	460	340	460
HVM 150-40	1350	770	2120	540	370	560
HVM 150-50-2	1510	770	2280	540	370	570
HVM 150-50-1	1510	845	2355	580	410	690
HVM 150-50	1510	845	2355	580	410	690
HVM 150-60-2	1670	845	2515	580	410	700
HVM 150-60-1	1670	845	2515	580	410	700
HVM 150-60	1670	845	2515	580	410	700

Performance Table & Curve

Performance Curve HVM/HVMF 1



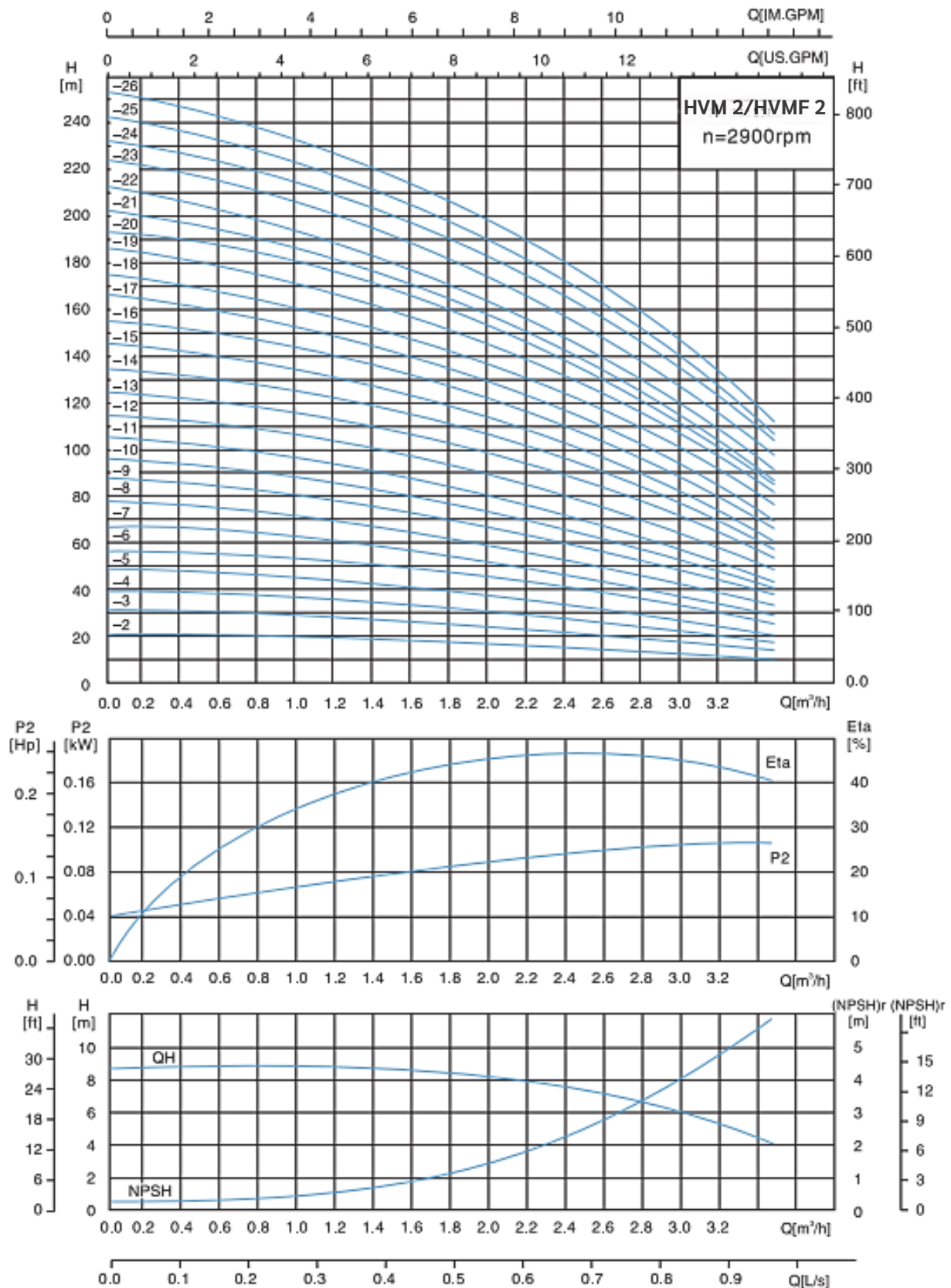
Performance Table & Curve

Performance Table HVM/HVMF 1

Type	Motor (kW)	Q (m ³ /h)	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
HVM 1-2	0.37	H (m)	13	12.5	12	11.5	11	10.5	10	9.5	9
HVM 1-3	0.37		19	18	17.5	17	16.5	16	15	14	12
HVM 1-4	0.37		24	23.5	23	22.5	21.5	21	19	18	16
HVM 1-5	0.37		30	29.6	29	28	27	26	24	22	20
HVM 1-6	0.37		36	35.5	35	33.5	33	31	28	26	23
HVM 1-7	0.37		42	41	40.5	39	38	36	33	30	27
HVM 1-8	0.55		48	47	46	45	43	41	38	34	30
HVM 1-9	0.55		54	53	52	51	49	46	43	39	33
HVM 1-10	0.55		60	59	58	57	54	51	48	43	36
HVM 1-11	0.55		66	65	63	61	59	56	52	47	40
HVM 1-12	0.75		72	71	69	67	64	61	57	51	44
HVM 1-13	0.75		78	77	75	73	69	66	62	55	47
HVM 1-15	0.75		89	88	86	84	79	76	71	63	55
HVM 1-17	1.1		101	99	97	95	89	86	80	71	62
HVM 1-19	1.1		113	110	108	106	99	96	89	79	69
HVM 1-21	1.1		124	122	120	117	110	106	98	87	75
HVM 1-23	1.1		137	133	131	128	121	116	107	96	82
HVM 1-25	1.5		149	145	143	139	131	126	116	104	89
HVM 1-27	1.5		161	157	155	150	141	136	125	112	95
HVM 1-30	1.5		178	175	171	166	157	150	139	124	106
HVM 1-33	2.2		196	192	188	183	173	165	154	137	118
HVM 1-36	2.2		214	210	205	200	190	181	169	151	130

Performance Table & Curve

Performance Curve HVM/HVMF 2



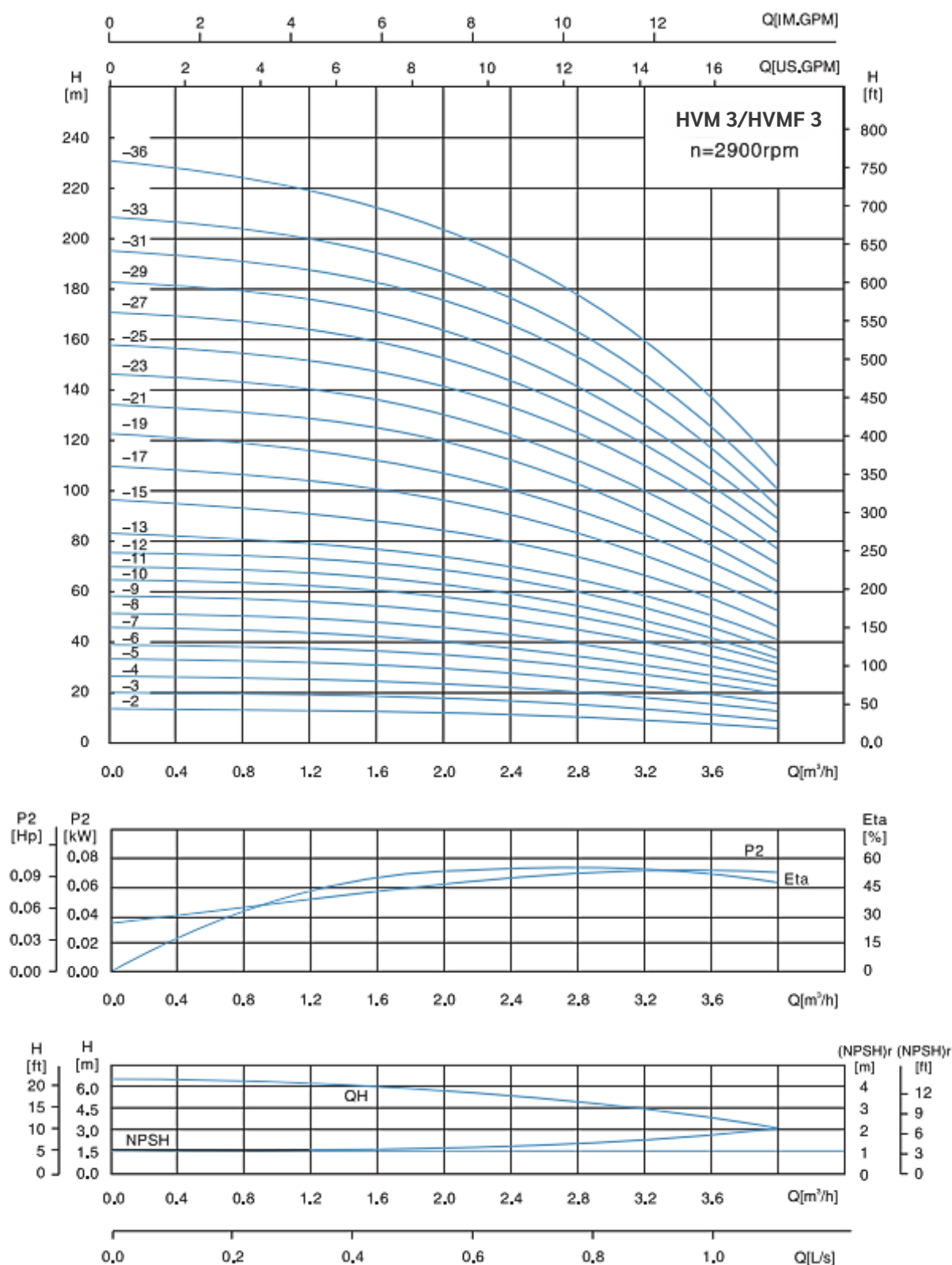
Performance Table & Curve

Performance Table HVM/HVMF 2

Type	Motor (kW)	Q (m ³ /h)	1.0	1.2	1.6	2.0	2.4	2.8	3.2	3.5
HVM 2-2	0.37	H (m)	18	17	16	15	13	12	10	8
HVM 2-3	0.37		27	26	24	22	20	18	15	12
HVM 2-4	0.55		26	35	33	30	26	24	20	16
HVM 2-5	0.55		45	43	40	37	33	30	24	20
HVM 2-6	0.75		53	52	50	45	40	36	30	24
HVM 2-7	0.75		63	61	57	52	47	41	35	28
HVM 2-9	1.1		80	78	73	67	61	54	45	37
HVM 2-11	1.1		98	95	89	82	73	64	54	44
HVM 2-13	1.5		116	114	106	98	89	78	65	52
HVM 2-15	1.5		134	130	123	112	100	90	73	60
HVM 2-18	2.2		161	157	148	136	121	108	91	76
HVM 2-22	2.2		197	192	180	165	148	130	110	90
HVM 2-26	3.0		232	228	214	198	179	158	130	110

Performance Table & Curve

Performance Curve HVM/HVMF 3



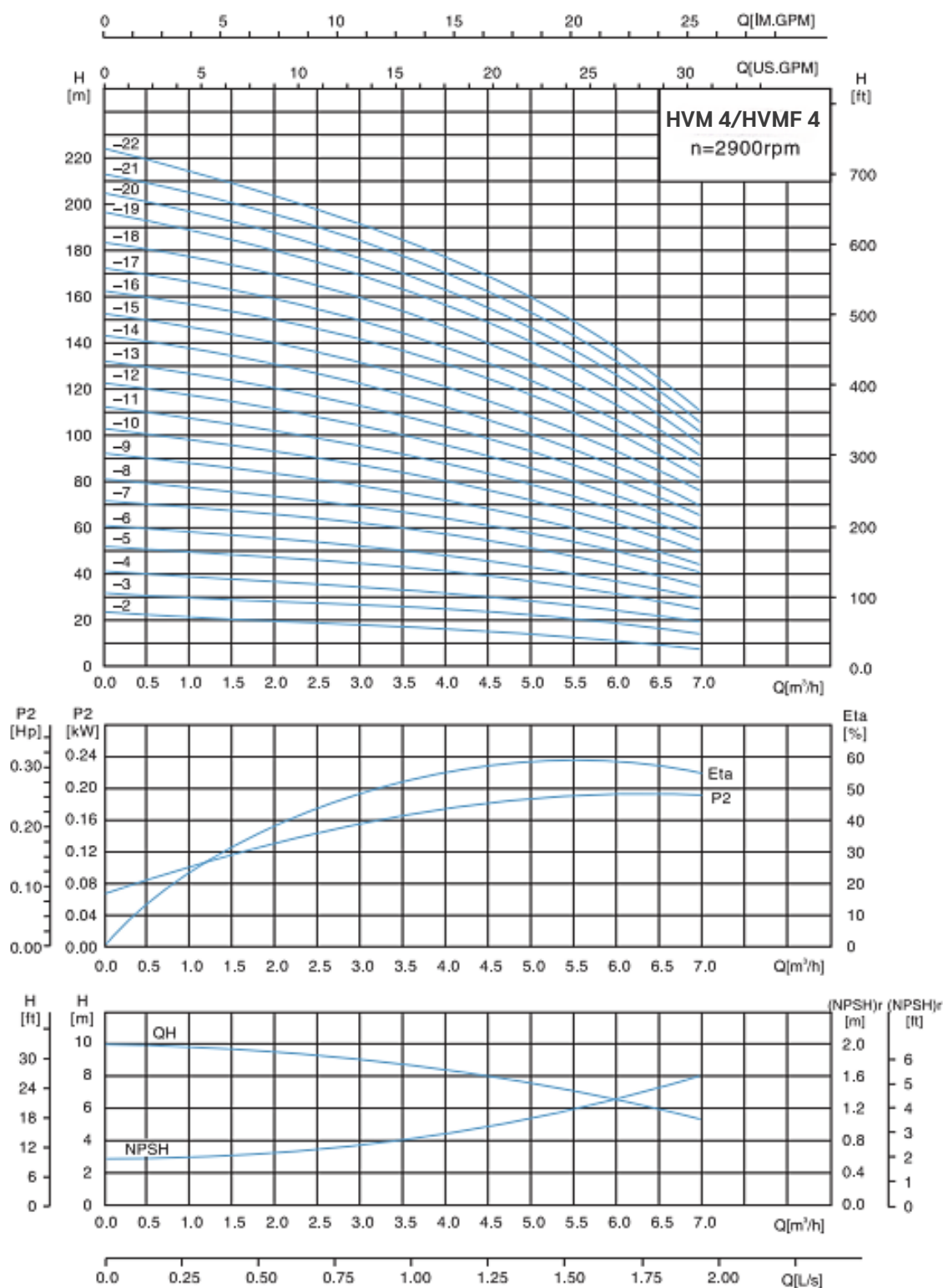
Performance Table & Curve

Performance Table HVM/HVMF 3

Type	Motor (kW)	Q (m³/h)	1.2	1.6	2.0	2.4	2.8	3.0	3.2	3.6	4.0
HVM 3-2	0.37	H (m)	12.5	11.5	11	10.5	10	9	8	7	6
HVM 3-3	0.37		19	18.5	17.5	16.5	15	14	13	11	9
HVM 3-4	0.37		25	24	23	21.5	20	19	18	15	12
HVM 3-5	0.37		31	30	29	27	25	23	22	19	16
HVM 3-6	0.55		36	35	34	32	30	28	27	23	19
HVM 3-7	0.55		43	41	39	37	34	32	31	27	22
HVM 3-8	0.75		49	47	45	43	39	37	35	31	25
HVM 3-9	0.75		55	53	51	48	45	42	40	35	28
HVM 3-10	0.75		61	59	57	54	50	47	45	39	31
HVM 3-11	1.1		67	64	61	58	54	51	49	42	34
HVM 3-12	1.1		73	70	67	63	58	55	52	45	37
HVM 3-13	1.1		78	76	73	69	64	60	57	49	40
HVM 3-15	1.1		90	88	84	79	73	69	66	57	46
HVM 3-17	1.5		103	100	96	90	83	79	75	64	52
HVM 3-19	1.5		115	112	107	100	92	88	83	72	58
HVM 3-21	2.2		128	124	119	112	102	98	91	79	64
HVM 3-23	2.2		140	135	130	122	112	107	100	86	70
HVM 3-25	2.2		151	147	141	131	122	116	109	94	76
HVM 3-27	2.2		164	159	152	143	132	124	117	101	82
HVM 3-29	2.2		175	170	163	153	142	133	126	109	88
HVM 3-31	3.0		187	182	175	165	153	142	135	116	94
HVM 3-33	3.0		199	194	187	176	163	151	145	125	100
HVM 3-36	3.0		218	212	204	192	178	168	159	137	109

Performance Table & Curve

Performance Curve HVM/HVMF 4



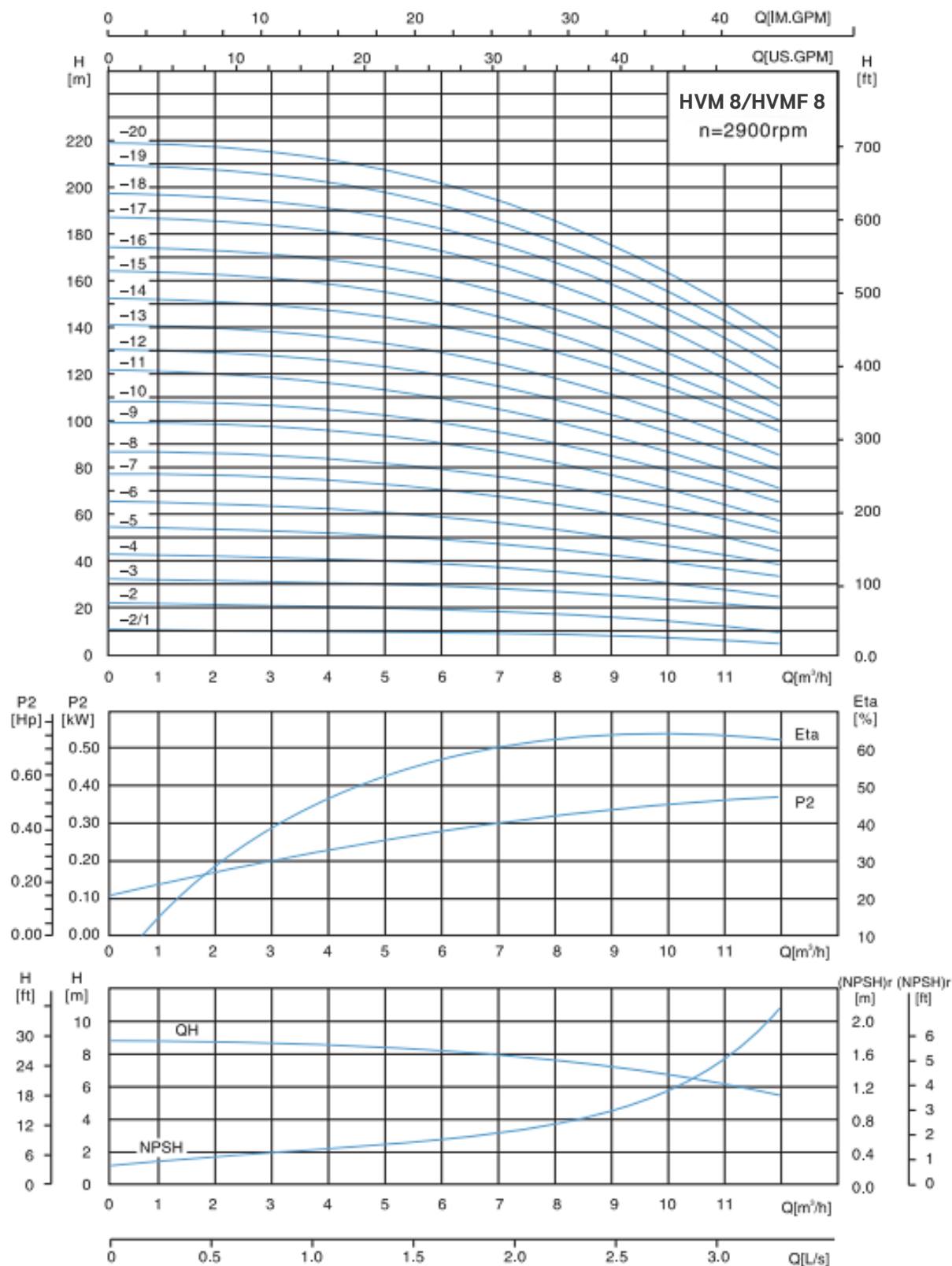
Performance Table & Curve

Performance Table HVM/HVMF 4

Type	Motor (kW)	Q (m ³ /h)	1.5	2.0	3.0	4.0	5.0	6.0	7.0
HVM 4-2	0.37	H (m)	19	18	17	15	13	10	8
HVM 4-3	0.55		28	27	26	24	20	18	13
HVM 4-4	0.75		38	36	34	32	27	24	19
HVM 4-5	1.1		47	45	43	40	34	31	23
HVM 4-6	1.1		56	54	52	48	41	37	28
HVM 4-7	1.5		66	63	61	56	48	43	33
HVM 4-8	1.5		74	72	70	64	55	50	38
HVM 4-10	2.2		96	90	87	81	71	62	48
HVM 4-12	2.2		114	108	104	95	85	75	58
HVM 4-14	3.0		136	126	122	112	101	89	68
HVM 4-16	3.0		152	144	140	129	115	101	78
HVM 4-19	4.0		183	171	168	153	137	122	93
HVM 4-22	4.0		211	200	192	178	160	138	108

Performance Table & Curve

Performance Curve HVM/HVMF 8



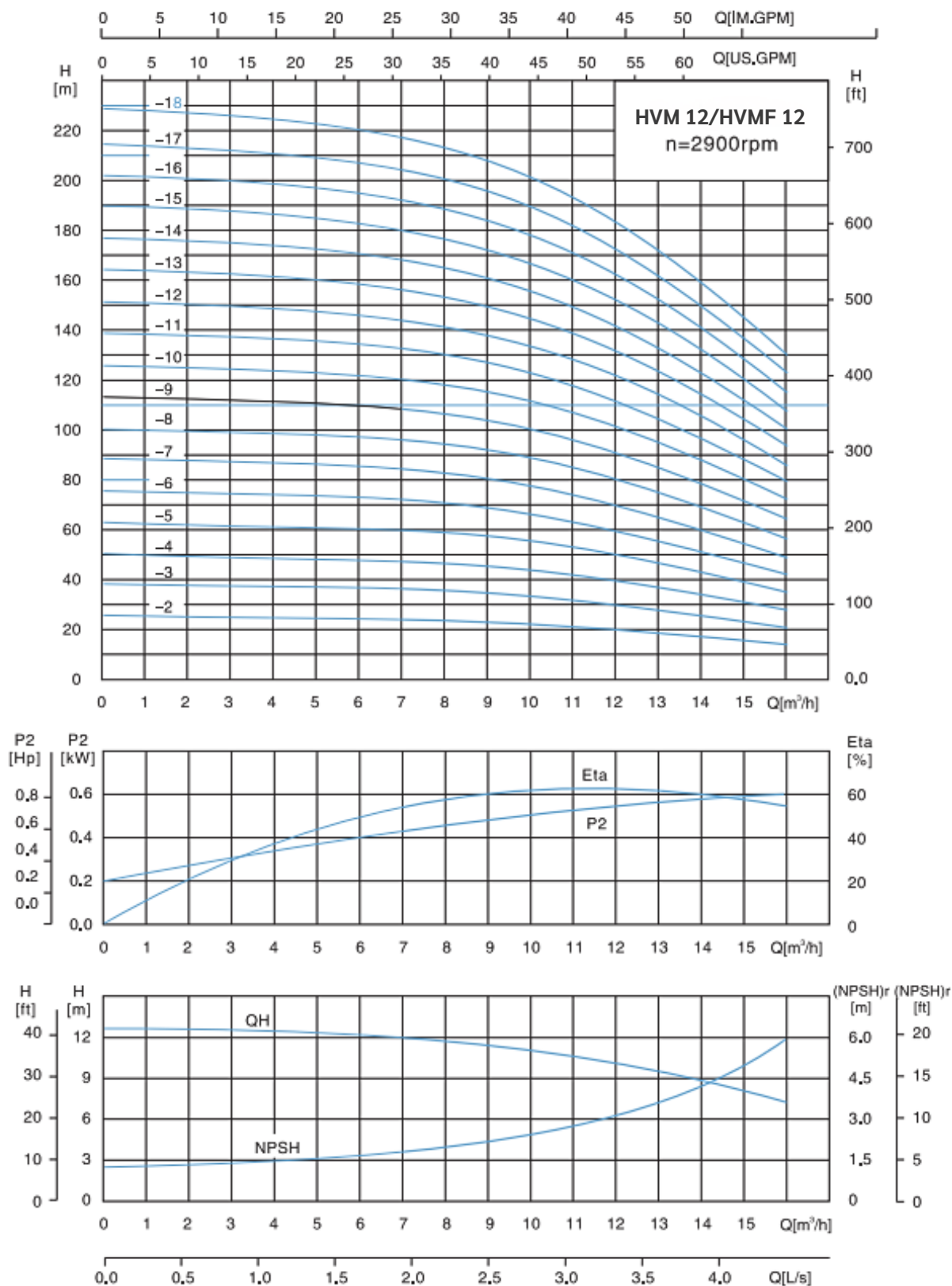
Performance Table & Curve

Performance Table HVM/HVMF 8

Type	Motor (kW)	Q (m ³ /h)	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
HVM 8-2/1	0.75	H (m)	10	9.5	9.3	9	8.5	8	7	6
HVM 8-2	0.75		20	19.5	19	18	17	16	14	13
HVM 8-3	1.1		30	29.5	28.5	27	25	24	21	19
HVM 8-4	1.5		41	39.5	38	36	34	32	28	26
HVM 8-5	2.2		52	50	48	45	42	40	36	32
HVM 8-6	2.2		62	60	57	54	51	48	43	39
HVM 8-8	3.0		83	80	77	73	69	65	58	52
HVM 8-10	4.0		104	100	97	92	87	81	73	65
HVM 8-12	4.0		124	120	116	111	104	92	87	78
HVM 8-14	5.5		145	141	136	130	122	113	102	92
HVM 8-16	5.5		166	161	156	148	139	130	118	106
HVM 8-18	7.5		187	182	175	167	157	146	134	120
HVM 8-20	7.5		208	202	195	186	175	163	150	135

Performance Table & Curve

Performance Curve HVM/HVMF 12



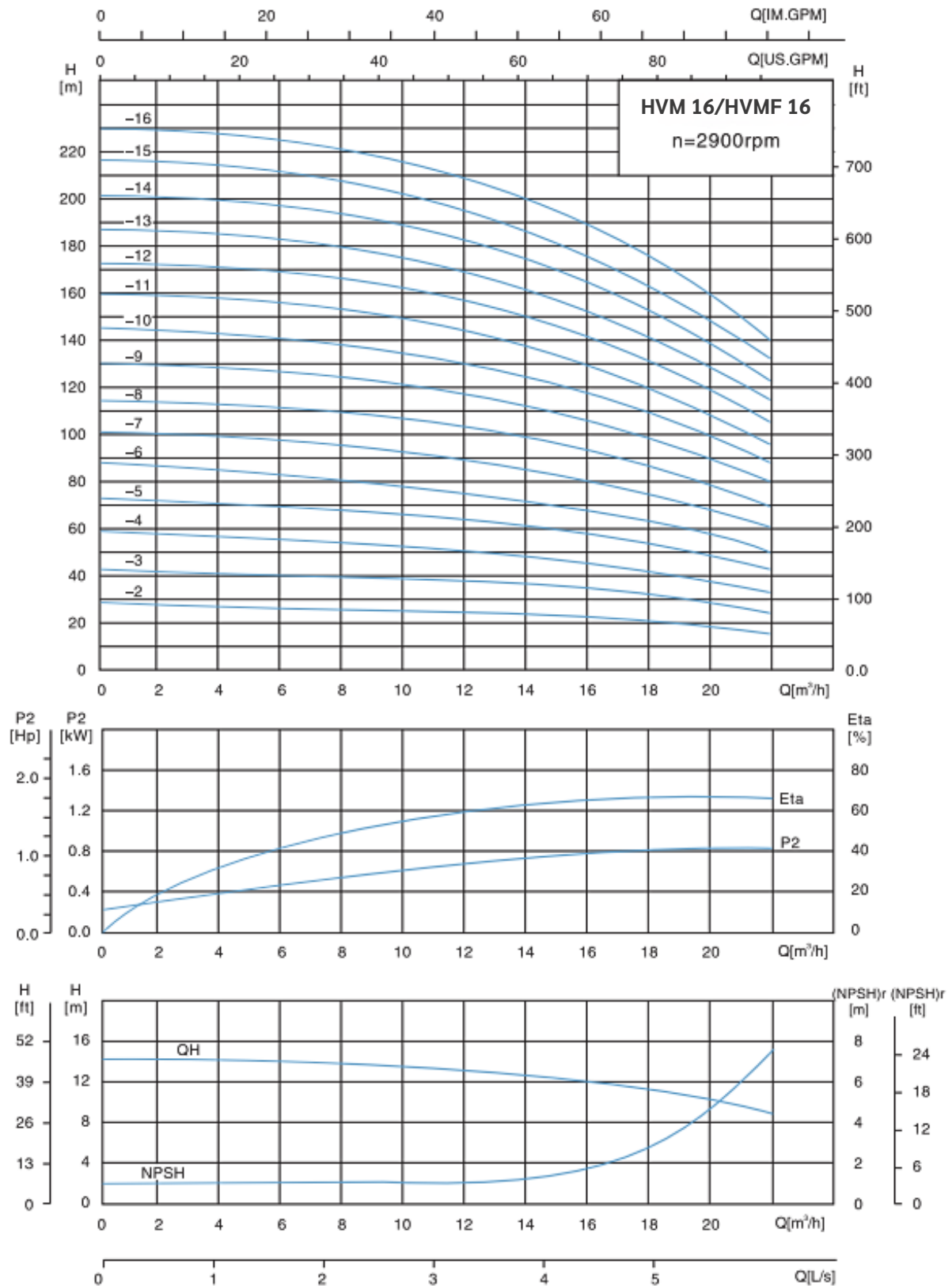
Performance Table & Curve

Performance Table HVM/HVMF 12

Type	Motor (kW)	Q (m³/h)	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0
HVM 12-2	1.5	H (m)	23.5	23	22.5	22	21	20	18.5	17	15.5	14
HVM 12-3	2.2		35.5	35	34	33	31.5	30	28	26	23.5	21
HVM 12-4	3.0		47	46	45	44	42	40	37	34	31	28
HVM 12-5	3.0		59.5	58	56.5	55	52.5	50	46.5	43	39	35
HVM 12-6	4.0		71.5	70	68	66	63	60	56	52	47	42
HVM 12-7	5.5		83.5	82	79.5	77	73.5	70	65.5	61	55	49
HVM 12-8	5.5		95.5	94	91	88	84	80	75	70	63	56
HVM 12-9	5.5		108	106	103	100	95.5	91	85	79	71.5	64
HVM 12-10	7.5		120	118	114.5	111	106	101	94.5	88	80	72
HVM 12-12	7.5		143.5	141	137	133	127	121	113.5	106	96	86
HVM 12-14	11.0		168	165	160	155	148	141	132.5	124	112	100
HVM 12-16	11.0		192.5	189	183.5	178	170	162	152	142	128.5	115
HVM 12-18	11.0		217	213	207.5	202	192.5	183	171.5	160	145	130

Performance Table & Curve

Performance Curve HVM/HVMF 16



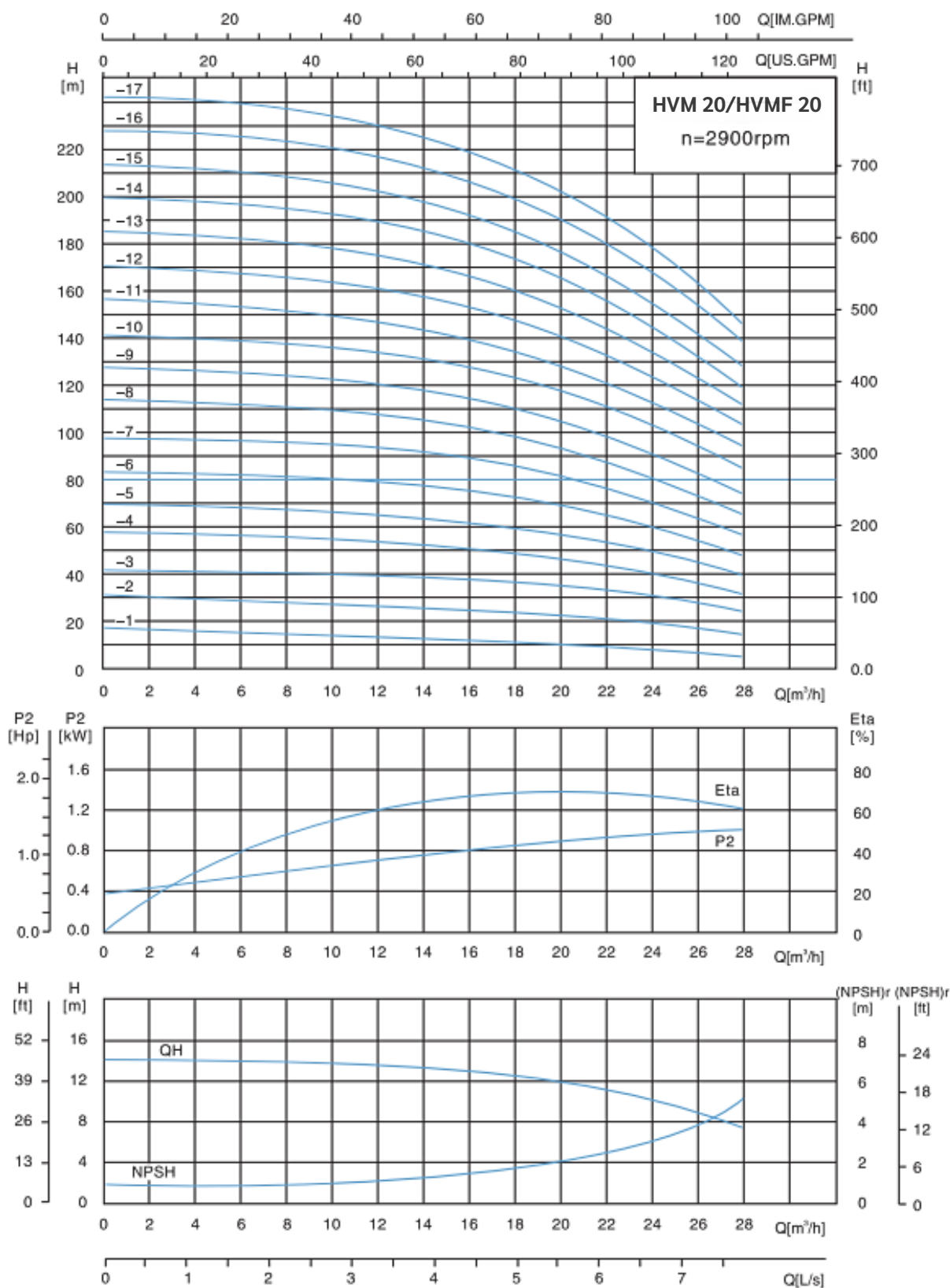
Performance Table & Curve

Performance Table HVM/HVMF 16

Type	Motor (kW)	Q (m ³ /h)	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
HVM 16-2	2.2	H (m)	27	26	25	24	22	21	19	16
HVM 16-3	3.0		41	40	38	37	34	32	29	25
HVM 16-4	4.0		54	53	52	49	46	43	38	34
HVM 16-5	5.5		68	67	65	62	58	54	48	43
HVM 16-6	5.5		82	80	78	74	70	64	58	52
HVM 16-7	7.5		96	95	91	87	82	76	68	61
HVM 16-8	7.5		110	108	104	99	94	86	77	70
HVM 16-10	11.0		138	136	131	125	118	109	97	87
HVM 16-12	11.0		166	162	157	150	141	130	116	105
HVM 16-14	15.0		194	190	184	175	166	152	136	122
HVM 16-16	15.0		222	217	210	200	189	174	156	140

Performance Table & Curve

Performance Curve HVM/HVMF 20



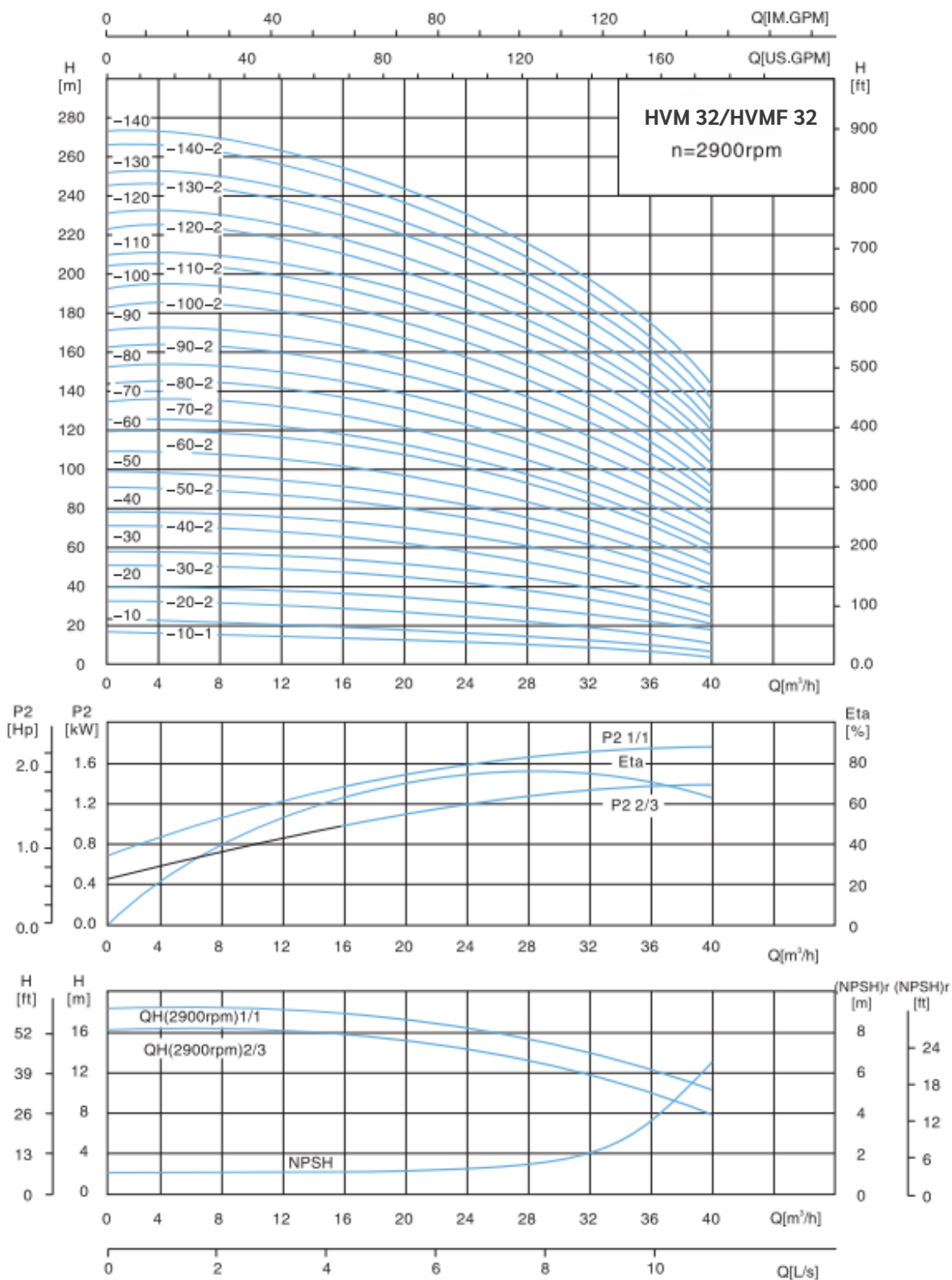
Performance Table & Curve

Performance Table HVM/HVMF 20

Type	Motor (kW)	Q (m ³ /h)	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0
HVM 20-1	1.1	H (m)	13.5	13	12.5	12	11	10	9	8	7	6
HVM 20-2	2.2		27	26.5	26	25	24	23	22	20	18	15
HVM 20-3	4.0		40	39.5	39	38	37	35	33	30	27	24
HVM 20-4	5.5		54	53	52	51	49	47	44	41	37	33
HVM 20-5	5.5		67	66	64	62	60	58	55	50	45	40
HVM 20-6	7.5		81	79	77	75	73	70	66	61	55	49
HVM 20-7	7.5		95	93	91	89	86	82	77	71	65	58
HVM 20-8	11.0		109	107	105	102	99	94	89	82	75	67
HVM 20-10	11.0		136	134	131	128	124	118	111	103	95	85
HVM 20-12	15.0		164	162	158	154	149	142	133	124	114	102
HVM 20-14	15.0		192	189	185	180	174	166	156	145	133	119
HVM 20-17	18.5		234	230	225	219	212	202	190	177	162	145

Performance Table & Curve

Performance Curve HVM/HVMF 32



Performance Table & Curve

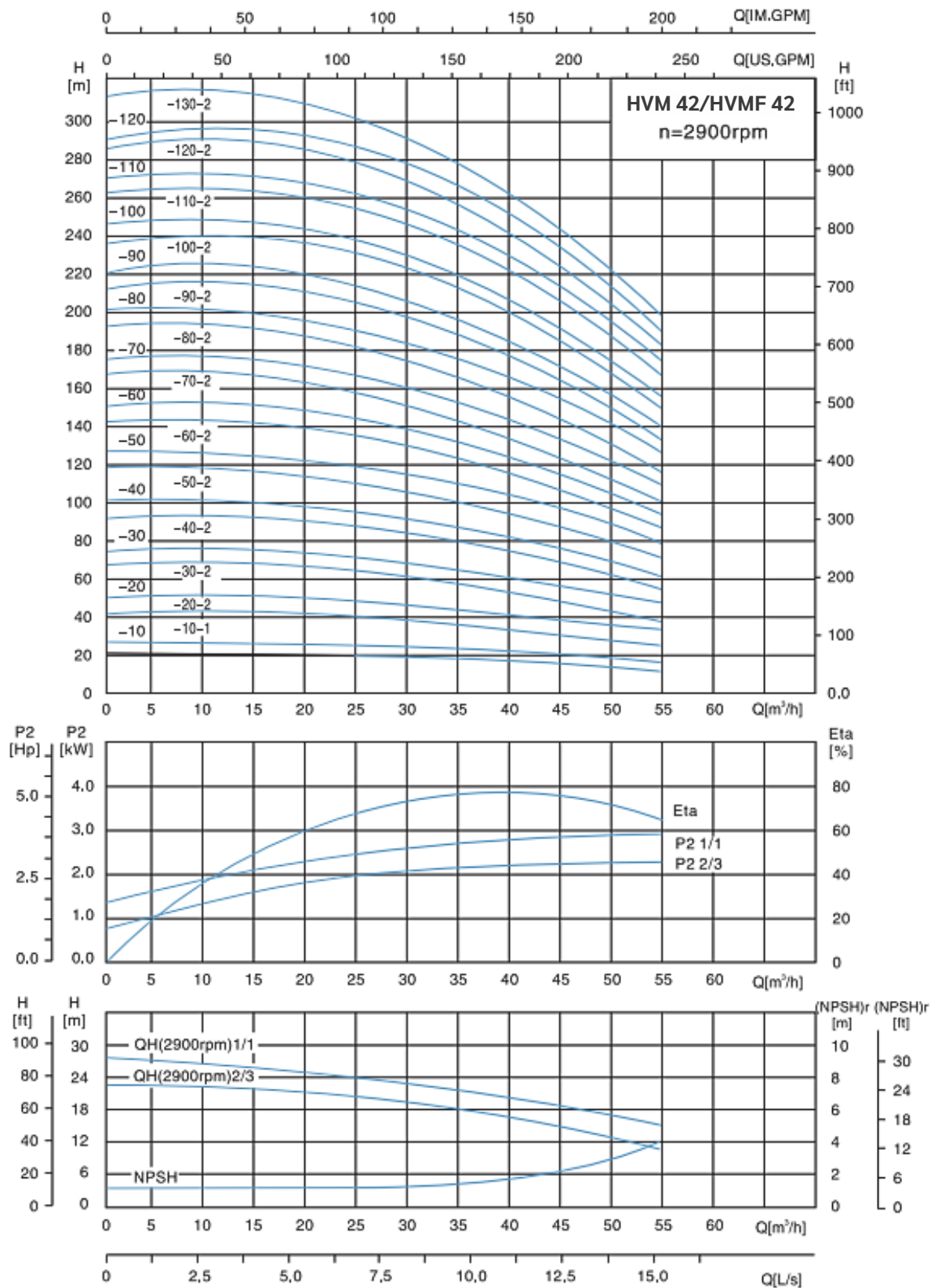
Performance Table HVM/HVMF 32

Type	Motor (kW)	Q (m³/h)	16.0	20.0	24.0	28.0	32.0	36.0	40.0
HVM 32-10-1	1.5	H (m)	14	13	12	11	9	7	4
HVM 32-10	2.2		18	17	15	14	13	11	8
HVM 32-20-2	3.0		29	28	26	23	20	16	11
HVM 32-20-2	4.0		36	34	32	29	27	23	18
HVM 32-30-2	5.5		47	44	41	38	33	28	21
HVM 32-30	5.5		54	51	48	44	40	35	27
HVM 32-40-2	7.5		65	62	58	53	46	40	30
HVM 32-40	7.5		72	69	65	59	53	47	37
HVM 32-50-2	11.0		83	79	74	68	60	52	41
HVM 32-50	11.0		90	86	81	74	67	59	47
HVM 32-60-2	11.0		101	97	90	83	74	65	51
HVM 32-60	11.0		108	104	97	90	81	72	57
HVM 32-70-2	15.0		119	114	107	98	88	78	60
HVM 32-70	15.0		126	121	113	105	95	85	67

Type	Motor (kW)	Q (m³/h)	16.0	20.0	24.0	28.0	32.0	36.0	40.0
HVM 32-80-2	15.0	H (m)	136	131	123	114	102	90	71
HVM 32-80	15.0		144	138	130	120	109	97	77
HVM 32-90-2	18.5		154	148	140	129	117	102	82
HVM 32-90	18.5		162	156	147	136	124	109	88
HVM 32-100-2	18.5		175	166	157	146	131	115	91
HVM 32-100	18.5		182	173	164	152	138	122	98
HVM 32-110-2	22.0		193	184	173	164	146	128	102
HVM 32-110	22.0		200	191	180	168	153	135	109
HVM 32-120-2	22.0		211	201	189	178	160	140	113
HVM 32-120	22.0		218	208	196	184	167	147	120
HVM 32-130-2	30.0		230	218	206	193	174	153	124
HVM 32-130	30.0		237	225	213	200	181	160	131
HVM 32-140-2	30.0		247	235	222	210	189	165	135
HVM 32-140	30.0		255	242	229	216	196	172	142

Performance Table & Curve

Performance Curve HVM/HVMF 42



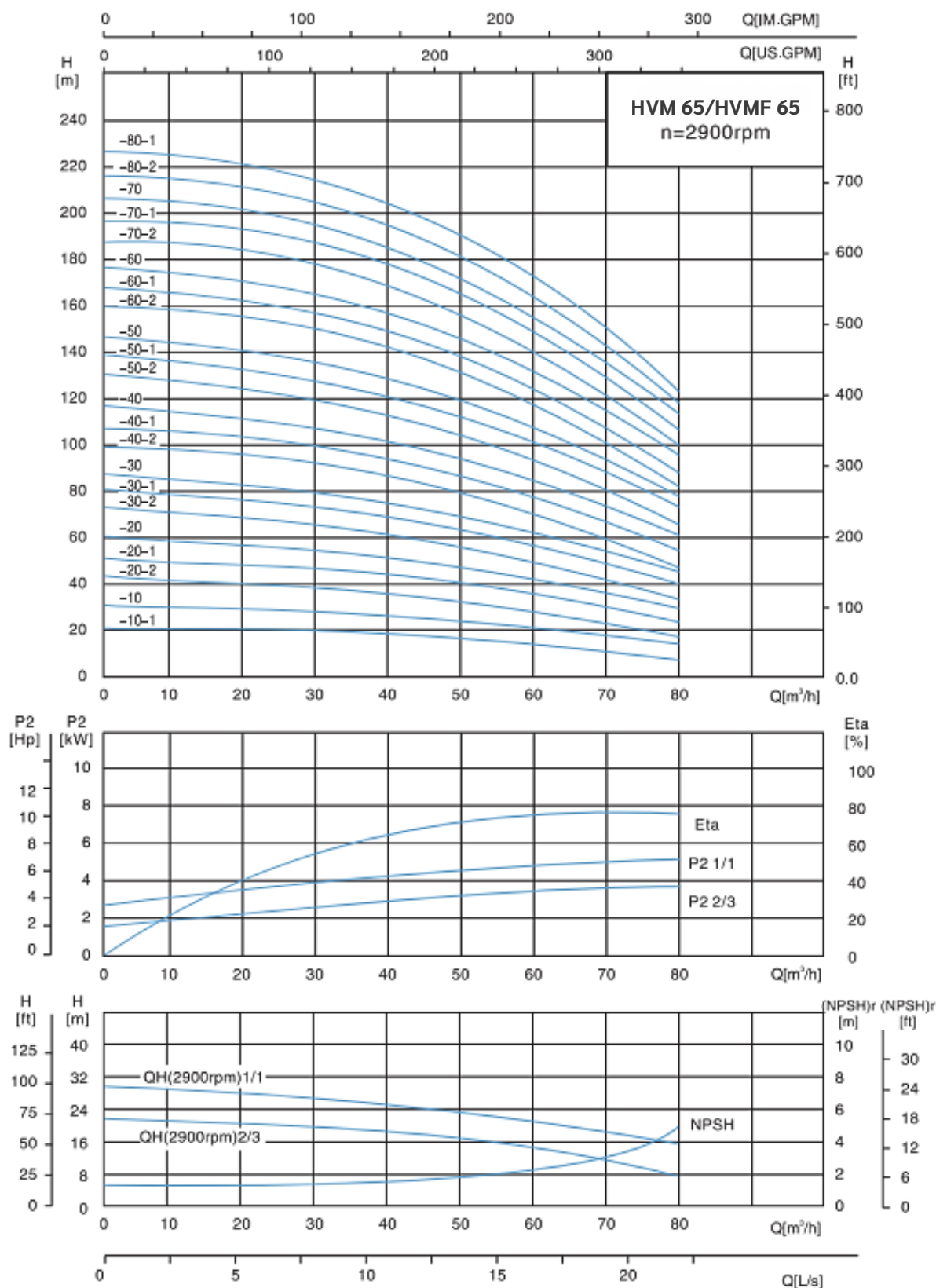
Performance Table & Curve

Performance Table HVM/HVMF 42

Type	Motor (kW)	Q (m³/h)	25.0	30.0	35.0	40.0	42.0	45.0	50.0	55.0
HVM 42-10-1	3.0	H (m)	20	19	18	17	16	15	13	11
HVM 42-10	4.0		24	23	22	21	20	19	18	16
HVM 42-20-2	5.5		40	38	36	33	32	30	27	23
HVM 42-20	7.5		48	46	44	42	41	39	35	31
HVM 42-30-2	11.0		63	61	58	54	52	50	44	38
HVM 42-30	11.0		71	69	66	63	61	58	53	47
HVM 42-40-2	15.0		87	84	80	75	73	69	62	54
HVM 42-40	15.0		95	92	88	84	81	78	71	62
HVM 42-50-2	18.5		111	107	102	96	93	88	80	69
HVM 42-50	18.5		119	115	110	105	101	97	88	78
HVM 42-60-2	22.0		135	130	124	117	113	108	97	85
HVM 42-60	22.0		143	138	132	125	122	116	106	93
HVM 42-70-2	30.0		158	152	146	138	134	127	115	100
HVM 42-70	30.0		166	161	154	146	142	135	124	109
HVM 42-80-2	30.0		182	175	168	159	154	146	133	116
HVM 42-80	30.0		190	184	176	167	162	154	141	124
HVM 42-90-2	30.0		205	198	190	180	174	166	150	132
HVM 42-90	37.0		214	207	198	188	183	174	159	140
HVM 42-100-2	37.0		230	221	212	200	194	185	168	147
HVM 42-100	37.0		238	230	220	209	203	193	177	155
HVM 42-110-2	45.0		255	246	236	223	217	206	188	165
HVM 42-110	45.0		263	255	244	232	225	214	196	173
HVM 42-120-2	45.0		280	270	259	245	238	226	206	181
HVM 42-120	45.0		289	280	268	255	247	236	216	190
HVM 42-130-2	45.0		305	294	282	267	259	247	225	198

Performance Table & Curve

Performance Curve HVM/HVMF 65



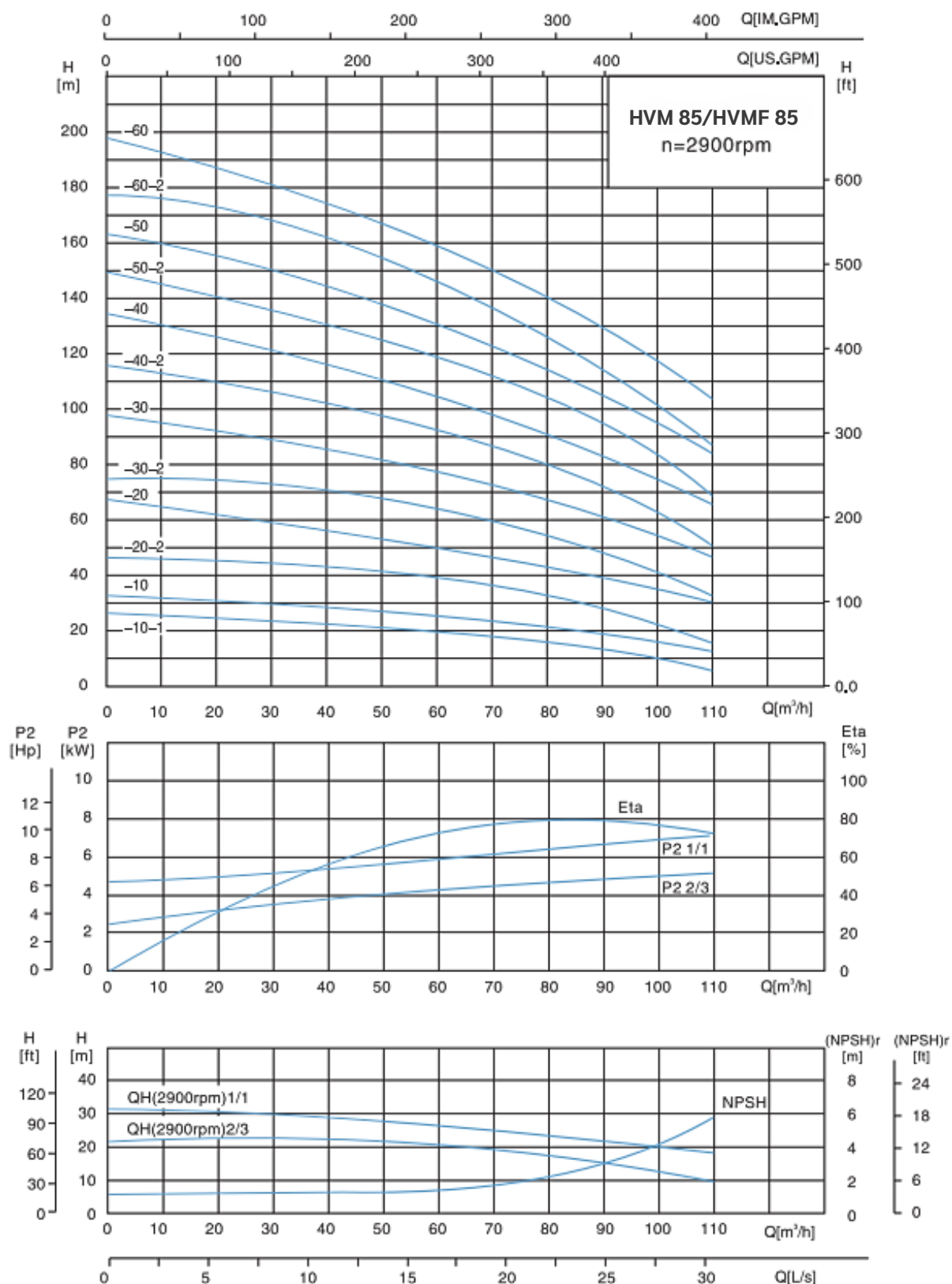
Performance Table & Curve

Performance Table HVM/HVMF 65

Type	Motor (kW)	Q (m ³ /h)	30.0	40.0	50.0	60.0	65.0	70.0	80.0
HVM 65-10-1	4.0	H (m)	19	18	16	14	13	11	8
HVM 65-10	5.5		27	25	23	21	20	18	15
HVM 65-20-2	7.5		39	36	33	29	26	23	17
HVM 65-20-1	11.0		46	44	40	36	33	30	24
HVM 65-20	11.0		53	51	47	43	40	37	30
HVM 65-30-2	15.0		66	62	56	50	46	41	32
HVM 65-30-1	15.0		73	69	63	57	53	48	39
HVM 65-30	18.5		80	76	70	64	60	55	46
HVM 65-40-2	18.5		92	87	80	71	66	60	47
HVM 65-40-1	22.0		100	94	87	78	73	67	54
HVM 65-40	22.0		107	101	94	85	80	74	61
HVM 65-50-2	30.0		121	114	105	95	88	80	64
HVM 65-50-1	30.0		128	121	112	102	95	87	71
HVM 65-50	30.0		136	129	119	109	102	94	78
HVM 65-60-2	30.0		150	142	131	118	110	101	81
HVM 65-60-1	37.0		157	149	138	125	117	108	88
HVM 65-60	37.0		164	156	145	132	124	115	95
HVM 65-70-2	37.0		179	169	156	141	132	121	99
HVM 65-70-1	37.0		186	176	163	148	139	128	106
HVM 65-70	45.0		193	183	170	155	146	135	112
HVM 65-80-2	45.0		207	196	182	164	154	142	116
HVM 65-80-1	45.0		215	203	189	171	161	149	123

Performance Table & Curve

Performance Curve HVM/HVMF 85



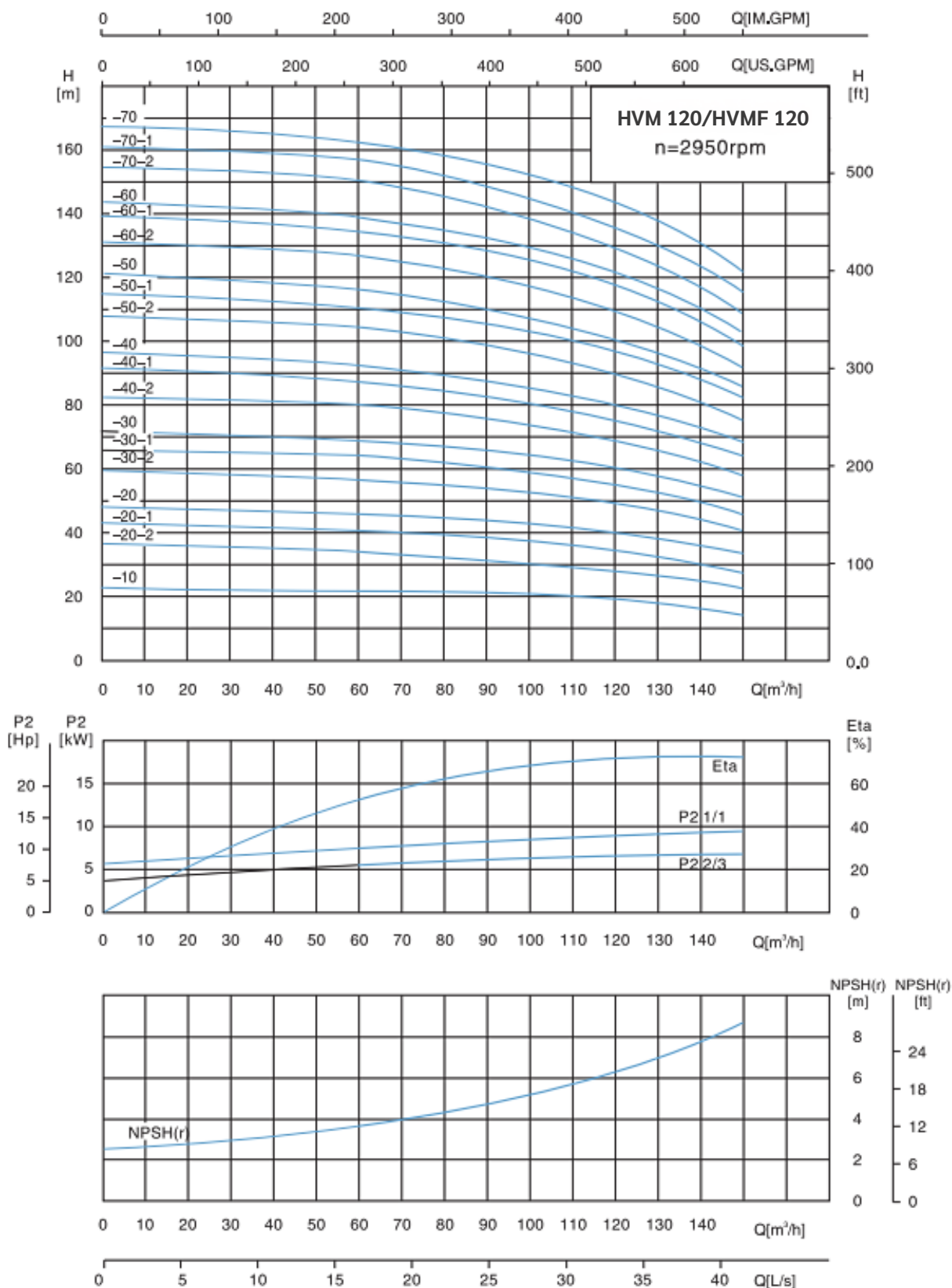
Performance Table & Curve

Performance Table HVM/HVMF 85

Type	Motor (kW)	Q (m ³ /h)	50.0	60.0	70.0	80.0	85.0	90.0	100.0	110.0
HVM 85-10-1	5.5	H (m)	22	19	17	16	14	13	10	6
HVM 85-10	7.5		25	24	22	21	20	19	16	12
HVM 85-20-2	11.0		41	39	36	32	30	28	22	15
HVM 85-20	15.0		53	50	47	44	41	40	36	30
HVM 85-30-2	18.5		68	65	60	55	52	49	41	32
HVM 85-30	22.0		81	77	72	67	64	62	55	48
HVM 85-40-2	30.0		98	93	87	80	75	72	62	50
HVM 85-40	30.0		110	105	100	92	86	84	76	66
HVM 85-50-2	37.0		126	120	113	104	98	93	81	68
HVM 85-50	37.0		139	131	124	115	110	106	94	83
HVM 85-60-2	45.0		155	148	139	129	122	117	102	86
HVM 85-60	45.0		168	160	150	141	134	130	117	103

Performance Table & Curve

Performance Curve HVM/HVMF 120



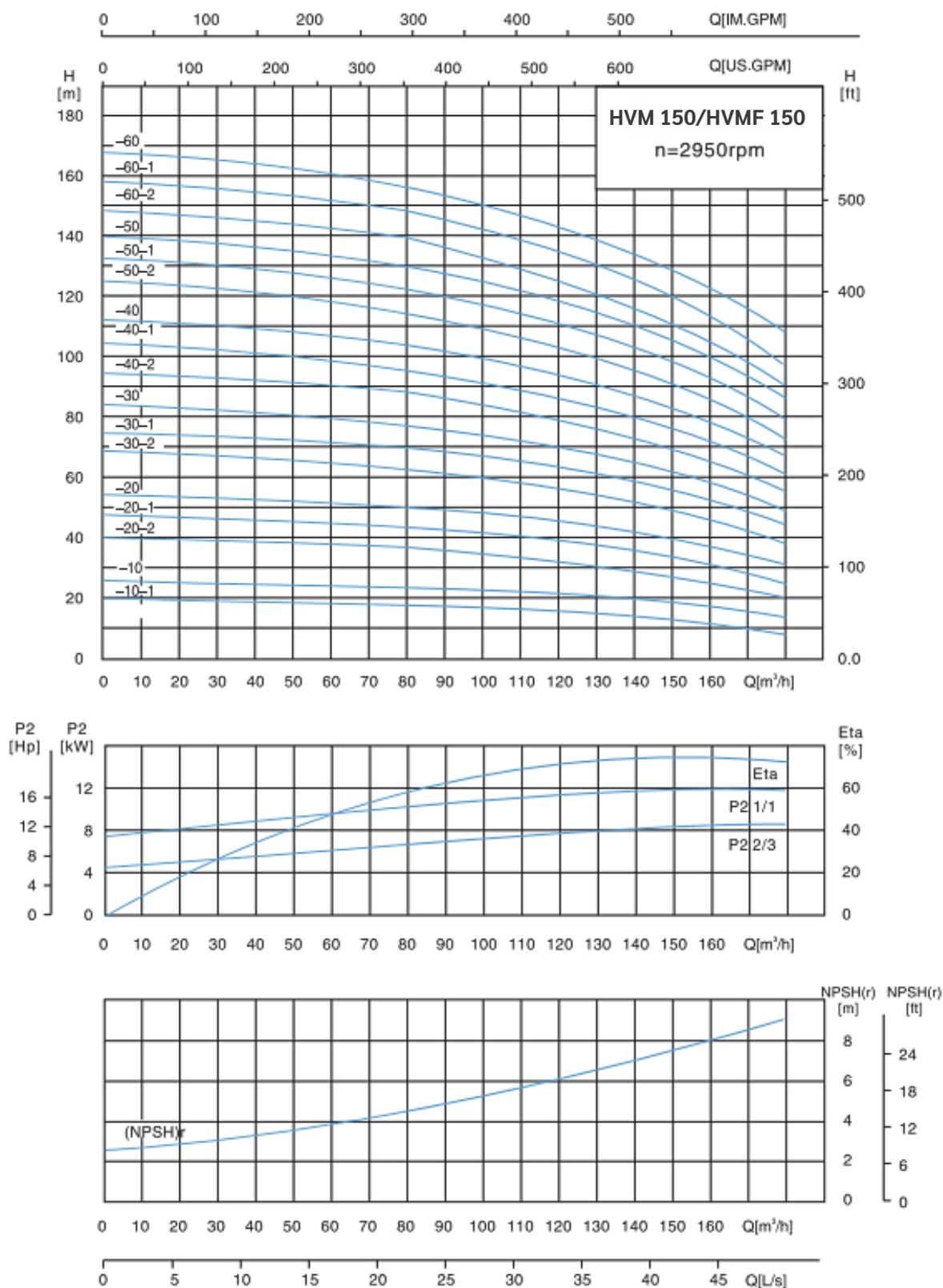
Performance Table & Curve

Performance Table HVM/HVMF 120

Type	Motor (kW)	Q (m³/h)	60.0	70.0	80.0	90.0	100.0	110.0	120.0	130.0	140.0	150.0
HVM 120-10	11.0	H (m)	22	21.8	21.6	21	20.5	19.5	18.5	17	16	15
HVM 120-20-2	15.0		34	33.6	33	31	30.2	30	28.5	27	25	24
HVM 120-20-1	18.5		41	40	39.5	38.5	37	36.5	34.5	32.5	30	27.5
HVM 120-20	22.0		46	45	44.5	43.5	42.4	41	40	38	36	33.5
HVM 120-30-2	30.0		57	56	55	53.5	52	51	49	46.5	43.5	41
HVM 120-30-1	30.0		64	63	62	60	58.5	57.5	55.5	52	49	46
HVM 120-30	30.0		69.5	68.5	67.5	66	64.4	62.5	61	57.5	54.5	51
HVM 120-40-2	37.0		80.5	79	78	76	73.5	72	69	66	61.5	58
HVM 120-40-1	37.0		87	86	84.5	82	80	78	76	72	68	64.5
HVM 120-40	45.0		92.5	91	90	88	85.5	83	81	77	73	68.5
HVM 120-50-2	45.0		104.5	103	101	99	96	93	90	85.5	80.5	75.5
HVM 120-50-1	45.0		110.5	109	107.5	105	102	100	97	92	86.5	83
HVM 120-50	55.0		115.5	114	113	110	107.5	104.5	101.5	96	91	86
HVM 120-60-2	55.0		128	125.5	123	121	117.3	113.5	110	104.5	98.5	92.5
HVM 120-60-1	75.0		134	132	130.5	127	124	121	118	111	105	100
HVM 120-60	75.0		139	137	135	132	128.8	126	123	116	110	104
HVM 120-70-2	75.0		151	148	145.5	143	138.6	134	130	123.5	116.5	109
HVM 120-70-1	75.0		156.5	154	152	148.5	144.5	141	137.5	130	123	116.5
HVM 120-70	75.0		162.5	160.5	158.5	155	151	148	145	137	129	123

Performance Table & Curve

Performance Curve HVM/HVMF 150



Performance Table & Curve

Performance Table HVM/HVMF 150

Type	Motor (kW)	Q (m³/h)	80.0	90.0	100.0	110.0	120.0	130.0	140.0	150.0	160.0	170.0	180.0
HVM 150-10-1	11.0	H (m)	18.3	17.8	17.3	17	16	15	14	12.5	11	10	8.5
HVM 150-10	15.0		24	23	22.5	22	21.5	20.5	20	18.5	17	16	15
HVM 150-20-2	18.5		37	35.5	34	33	32	31	29	27.5	26	23	21
HVM 150-20-1	22.0		44.3	43	42	40	39	38.5	37.5	35	33	30	27
HVM 150-20	30.0		50	49	48	47	45.5	44	42	40	37	34	32
HVM 150-30-2	30.0		63.5	61	59	57.5	56	54.5	53	49	45.5	42	39
HVM 150-30-1	37.0		70	68	67	65	63	62	60	56	53	49	45
HVM 150-30	37.0		78	76.5	75	73	70.5	68	66	63	59	55	50.5
HVM 150-40-2	45.0		89	87	84	81.5	79	77	74.5	70.5	65.5	60	56
HVM 150-40-1	45.0		96.5	94	91.5	89	86.5	84	81.5	77	72.5	67	62
HVM 150-40	55.0		104	102	100	97	95	91	88	84	79.5	74	68
HVM 150-50-2	55.0		115.5	112	109	106	102.5	100	97	92	86	79	73.5
HVM 150-50-1	75.0		122.5	119.5	117	113.5	111.5	107.5	104.5	99	93.5	87	80
HVM 150-50	75.0		130	127.5	125	121	119	115	111.5	106.5	101	94.5	86.5
HVM 150-60-2	75.0		140	137	133	130	126	121	118	112	106	98	91
HVM 150-60-1	75.0		148.5	145	141.7	137.5	135	131	127	120.5	114.5	106.5	97.5
HVM 150-60	75.0		157	153	149	145	142	139.5	137	130	123.5	116	109



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