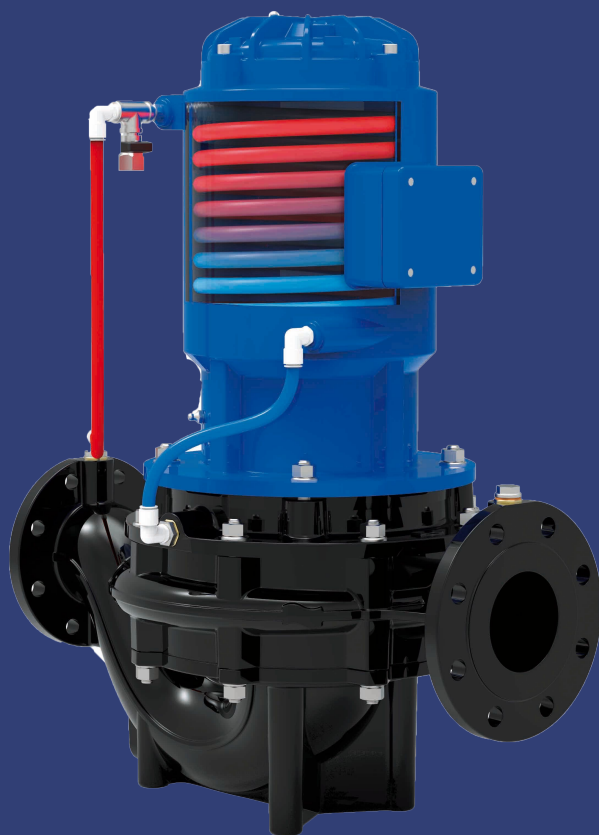


Блочные центробежные насосы с покрытием herborner.D-C

Технические характеристики



По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Россия (495)268-04-70

Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Киргизия (996)312-96-26-47

Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Казахстан (7172)727-132

Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93



**HERBORNER
PUMPENTECHNIK**

herborner.D-C

100% COATING = 0% CORROSION!

Technical data brochure
50 Hz



The coated, inline-block centrifugal pump with heat exchanger motor:
Flexible, innovative and powerful all at the same time.



Table of contents

Technical descriptions.....	3
Versions.....	8
1500 rpm	8
Characteristic curves 1500 rpm	9
DN 32.....	9
DN 40.....	10
DN 50.....	11
DN 65.....	13
DN 80.....	16
DN 100.....	18
DN 125.....	21
DN 150.....	23
DN 200.....	25
Dimensions • Weights	28
Technical data.....	30
Exploded view.....	31
Accessories	32



Use

The **herborner.D-C** with its 100% coating is particularly suited for use in swimming complexes, leisure and adventure pools, theme parks, industrial plants and ship technology. The inline version of the block pump is intended for direct installation into a pipeline. The coating is approved for use in swimming pools and for drinking water, making it the right choice for just about any application.

The coating thickness of up to 1000 µm ensures an extremely smooth surface. This increases hydraulic efficiency by up to 10%, saving energy for years.

Coating

Corrosion protection and protection against aggressive media thanks to the 100% coating of all relevant parts at risk from corrosion and that come in contact with the medium. Corrosion damage to the pump or system components is thereby prevented.

Impeller protector

Special impeller protector made of highly durable plastic protects the impeller from seizing up due to corrosion (after standstill periods) and ensures that the pump runs quietly.

The version with a particularly small gap achieves high efficiency.

Mechanical seal protector

The seat of the mechanical seal is fully protected against corrosion. This prevents corrosion cavities forming in the intermediate casing in the area of the O-ring seat of the mechanical seal. Improving corrosion stability leads to reduced life cycle costs.

X-Lock-System

With the X-Lock-System, it is possible to achieve 100% coating of the internal threads in cast parts in order to avoid corrosion in the threads.

Service and maintenance

Only stainless steel screwed connections are used, allowing trouble-free maintenance of components for years.

Seal-Guard-System (optional)

Normally, a mechanical seal is defective after a few seconds of dry running. The innovative and maintenance-free Seal-Guard-System has a reserve medium supply for such cases that compensates for insufficient lubrication for a much longer period of time. Thus, the primary mechanical seal is effectively protected against dry running.

Impellers

Dynamically balanced impellers ensure vibration-free running and contribute significantly to the long lifetime of the pump. By correcting the diameter, all impellers can reach any duty point within the set of performance curves.



Closed multi vane impellers for clean to slightly soiled pumped media are used.

Construction

The robust and stable type of construction was consistently continued. The dynamic process design for easy disassembling of the interchangeable module is also an integral element. Variable flange positions in intervals of 45° also offer optimal design flexibility.

Venting

Simple ventilation of the pump in vertical installation by means of a ball valve to remove air accumulation and avoid dry running of the mechanical seal.

Efficiency

An extended lifetime is achieved through liberally dimensioned shafts and bearings. All motors are also equipped with a re-lubrication unit.

These technological improvements reduce the life cycle costs of the pump significantly compared to standard motors.

Motor shaft

The rigid motor shaft made from high-alloy stainless steel ensures minimal deflection. In this way, seal leaks can be minimised and the service life of the motor shaft increased.

Shaft sealing

A maintenance-free mechanical seal is used for shaft sealing. It is independent of the direction of rotation and made from wear-resistant silicon carbide (SiC).

For the versions with the Seal-Guard-System, a mechanical seal made from wear-resistant silicon carbide (SiC) is used for sealing on the pump side and a mechanical seal in the form of cast carbon/chromium molybdenum on the drive side. The intermediate casing is filled with NSF H1 lubricating oil to lubricate and cool the mechanical seals. This oil even enables a short-term dry run.

All motors are equipped with a special seal for splash-proofing on the pump side.

By-pass channel

The mechanical seal is flushed optimally by the pumped medium through this channel. This gives the sliding surfaces the required lubricating and cooling medium thereby, extending the lifetime of the mechanical seal.

Installation

The pumps can be integrated into a piping system both horizontally and vertically with "Motor to the top".



Horizontal installation of the pump



Vertical installation of the pump

Optionally, a pump support for simple ground attachment can be included in delivery.



Vertical installation of the pump with pump support.

Output range

Speed	Q _{max} [m³/h]	H _{max} [m]
1500 rpm	610	41

Noise

Noise emission is determined by complex influencing factors such as size, materials, operating and installation conditions. As early as the development stage, hydraulic measures and solid construction are used to reduce noise emission. The maximum sound pressure level is generally determined by air, magnetic and bearing noise from the drive motors. Noise levels are below the permissible limit curves specified for electrical motors as defined by DIN EN 60034-9. Noise emission during operation close to Q_{optimal} (optimal efficiency) is minimal.

Motor

A medium-cooled heat exchanger motor is used. This returns a large proportion of the motor's waste heat back to the medium via an integrated cooling system through which the medium is guided.

Design	IM B5
Protection type	IP55
Speed	1500 rpm
Frequency	50 Hz
Connection ≤ 2.2 kW	230 Δ / 400 ∟ V
Connection ≥ 3.0 kW	400 Δ / 690 ∟ V
Insulation class EN 60034-1	F (155 °C)

The motors are fitted with a PTC thermistor as standard.

The motor is optionally available with an external frequency converter. The use of a frequency converter is recommended, but not compulsory.

Frequency regulation of pumps is available and depends upon the working conditions.
from 30 to 50 Hz (400 V)

General data

Design temperature +40 °C
Explosion-proof version from - 5 to + 40 °C
Ambient temperature range from -5 to +40 °C
Pumped medium free of H₂S, up to 1000 mg/l of chloride ions
Certificate of performance according to DIN EN ISO 9906, Class 2
Density of the pumped medium up to max. 1050 kg/m³
Viscosity of the pumped medium up to max. 1.75 mm²/s

In case of deviating application conditions, the output is corrected in accordance with customer-specific requirements.

Special configurations

Different voltage and/or mains frequency
Different insulation class
Heightened ambient temperature
Higher protection type
Enhanced tropical and moisture protection
Special materials
Special paint finish for all uncoated components
Asynchronous motors with efficiency class IE2 or IE3 (**herborner.D**)
Permanent magnet motors with maximum levels of efficiency of up to IE4 (**herborner.D-PM**)
Customer-specific solutions

Model designation

D040-220A-0154C-W2B-L-EX

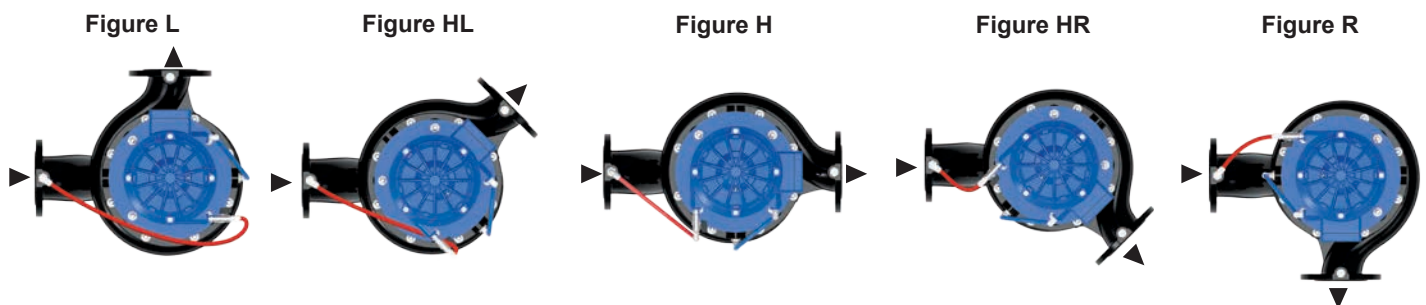
1 2 3 4 5 6 7 8 9 10

Number	Designation	Type code marking	Meaning
1	Design	D	herborner.D
2	Nominal diameter of pressure flange	032	DN 32
		040	DN 40
		050	DN 50
		065	DN 65
		080	DN 80
		100	DN 100
		125	DN 125
		150	DN 150
		200	DN 200
3	Construction dimensions	220	Centering diameter
4	Version	A-Z	Design version
5	Motor rating	015	1.5 kW
		022	2.2 kW
		030	3 kW
		040	4 kW
		055	5.5 kW
		075	7.5 kW
		110	11 kW
		150	15 kW
		185	18.5 kW
		220	22 kW
		300	30 kW
6	Speed	4	1500 rpm
7	Motor model	C	Heat exchanger motor
8	Materials	W2B	See materials
		W30	See materials
9	Flange position	L	Left
		RrL	Centred between the rear and left
		Rr	Rear
		RrR	Centred between the rear and right
		R	Right
10	Permitted use		Standard
		EX	Explosion protection

Materials

¹⁾	Individual components	W2B ²⁾	W30 ²⁾
025	Impeller protector	POM/FKM	POM
101	Pump casing	EN-GJL-250 ³⁾ (EN-JL1040)	CuSn10 (CC480K)
113	Intermediate casing	EN-GJL-250 ³⁾ (EN-JL1040)	CuSn10 (CC480K)
161	Casing cover	EN-GJL-250 ³⁾ (EN-JL1040)	CuSn10 (CC480K)
181	Pump support	EN-GJL-250 (EN-JL1040)	EN-GJL-250 (EN-JL1040)
230	Impeller	CuAl10Fe5Ni5-C (CC333G)	CuAl10Fe5Ni5-C (CC333G)
433.1	Mechanical seal	SiC/SiC/FKM	SiC/SiC/FKM
433.2	Mechanical seal	Carbon/CrMo cast/NBR	Carbon/CrMo cast/NBR
471	Seal cover	EN-GJL-250 (EN-JL1040)	EN-GJL-250 (EN-JL1040)
819	Motor shaft	X6CrNiMoTi17-12-2 (1.4571)	X6CrNiMoTi17-12-2 (1.4571)
	Mechanical seal protector	CuSn12-C (CC483K)	CuSn12-C (CC483K)

Flange position ^{4) 5)}



Terminal box alignment



¹⁾ See exploded view (page 23)

²⁾ Other material pairings upon request

³⁾ With thick coating

⁴⁾ The position of the terminal box may vary for versions with a frequency converter for direct mounting.

⁵⁾ See Versions (page 8)

1500 rpm

Model	P ₂ [kW]			Flange position					Accessories		
		without pump support	with pump support	L	RrL	Rr	RrR	R	Seal- Guard- System	frequency converter (direct in- stallation)	frequency converter (wall instal- lation)
											
D032-250A	1,5	●	○	○	○	●	○	○	○	-	○
D032-250A	2,2	●	○	○	○	●	○	○	○	-	○
D032-250A	3	●	○	○	○	●	○	○	○	-	○
D032-250A	4	●	○	○	○	●	○	○	○	-	○
D032-250B	2,2	●	○	○	○	●	○	○	○	-	○
D040-220A	1,5	●	○	○	○	●	○	○	○	-	○
D040-270A	2,2	●	○	○	○	●	○	○	○	-	○
D040-270A	3	●	○	○	○	●	○	○	○	-	○
D040-270A	4	●	○	○	○	●	○	○	○	-	○
D050-140A	1,5	●	○	○	○	●	○	○	○	-	○
D050-190A	1,5	●	○	○	○	●	○	○	○	-	○
D050-190A	2,2	●	○	○	○	●	○	○	○	-	○
D050-240A	1,5	●	○	○	○	●	○	○	○	-	○
D050-240A	2,2	●	○	○	○	●	○	○	○	-	○
D050-240A	3	●	○	○	○	●	○	○	○	-	○
D050-300A	5,5	●	○	○	○	●	○	○	○	-	○
D065-200A	1,5	●	○	○	○	●	○	○	○	-	○
D065-200A	2,2	●	○	○	○	●	○	○	○	-	○
D065-220A	2,2	●	○	○	○	●	○	○	○	-	○
D065-220A	3	●	○	○	○	●	○	○	○	-	○
D065-220A	4	●	○	○	○	●	○	○	○	-	○
D065-240A	3	●	○	○	○	●	○	○	○	-	○
D065-240A	4	●	○	○	○	●	○	○	○	-	○
D065-270A	4	●	○	○	○	●	○	○	○	-	○
D065-270A	5,5	●	○	○	○	●	○	○	○	-	○
D065-270C	5,5	●	○	○	○	●	○	○	○	-	○
D065-300B	7,5	●	○	○	○	●	○	○	○	-	○
D065-300B	11	●	○	○	○	●	○	○	○	-	○
D080-170A	1,5	●	○	○	○	●	○	○	○	-	○
D080-170A	2,2	●	○	○	○	●	○	○	○	-	○
D080-210A	3	●	○	○	○	●	○	○	○	-	○
D080-210A	4	●	○	○	○	●	○	○	○	-	○
D080-210A	5,5	●	○	○	○	●	○	○	○	-	○
D080-255A	3	●	○	○	○	●	○	○	○	-	○
D080-255A	4	●	○	○	○	●	○	○	○	-	○
D080-255A	5,5	●	○	○	○	●	○	○	○	-	○
D080-330A	11	●	○	○	○	●	○	○	○	-	○
D080-330A	15	●	○	○	○	●	○	○	○	-	○
D080-330A	18,5	●	○	○	○	●	○	○	○	-	○
D080-330A	22	●	○	○	○	●	○	○	○	-	○
D100-180A	2,2	●	○	○	○	●	○	○	○	-	○
D100-180A	3	●	○	○	○	●	○	○	○	-	○
D100-180A	4	●	○	○	○	●	○	○	○	-	○
D100-200A	2,2	●	○	○	○	●	○	○	○	-	○
D100-200A	3	●	○	○	○	●	○	○	○	-	○

● Standard

○ Option

- cannot be implemented

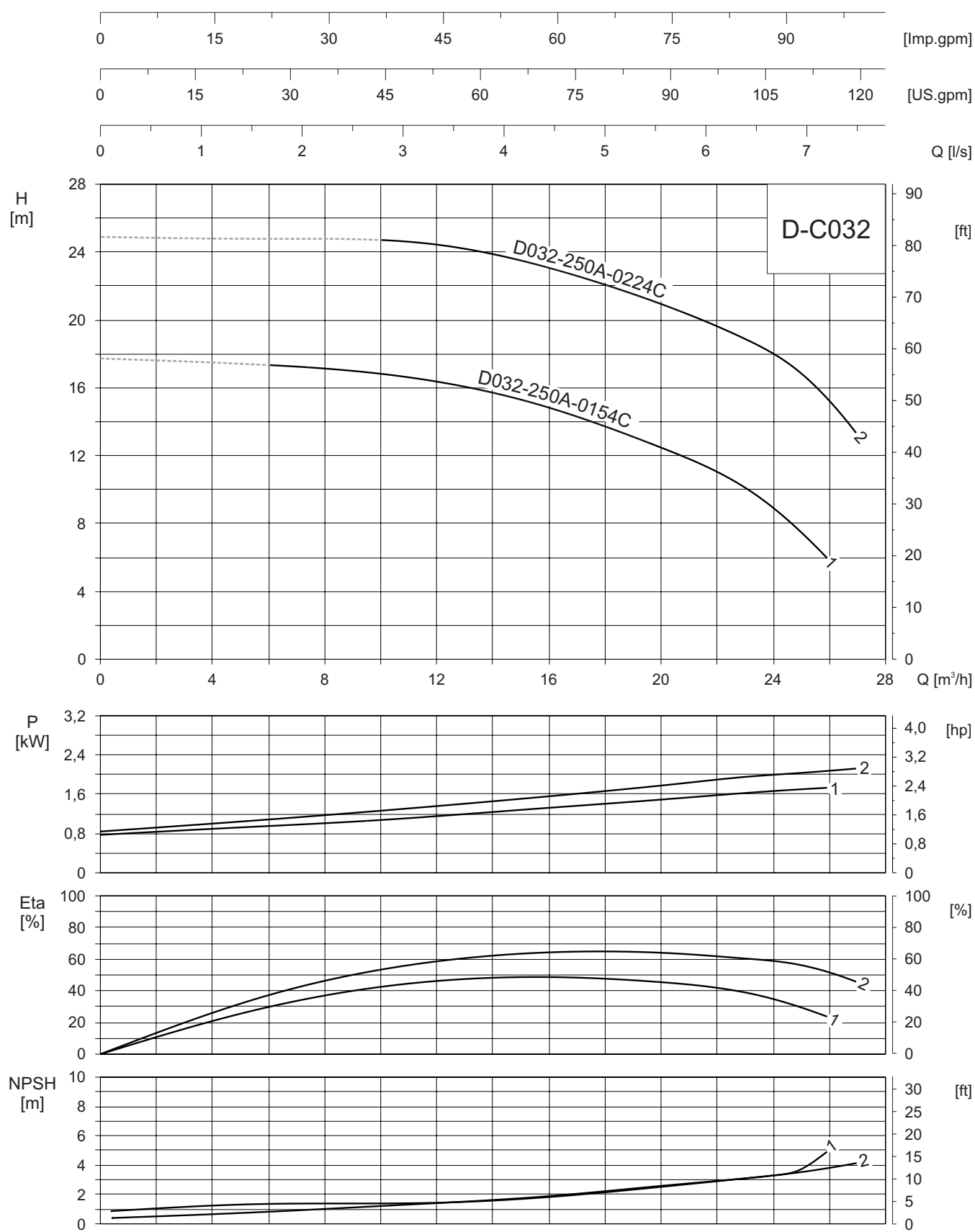
Model	P ₂ [kW]			Flange position					Accessories		
		without pump support	with pump support	L	RrL	Rr	RrR	R	Seal-Guard-System	frequency converter (direct installation)	frequency converter (wall installation)
											
D100-200A	4	●	○	○	○	●	○	○	○	-	○
D100-210A	3	●	○	○	○	●	○	○	○	-	○
D100-210A	4	●	○	○	○	●	○	○	○	-	○
D100-210A	5,5	●	○	○	○	●	○	○	○	-	○
D100-210A	7,5	●	○	○	○	●	○	○	○	-	○
D100-240A	5,5	●	○	○	○	●	○	○	○	-	○
D100-240A	7,5	●	○	○	○	●	○	○	○	-	○
D100-270A	5,5	●	○	○	○	●	○	○	○	-	○
D100-270A	7,5	●	○	○	○	●	○	○	○	-	○
D100-270A	11	●	○	○	○	●	○	○	○	-	○
D100-330A	18,5	●	○	○	○	●	○	○	○	-	○
D100-330A	22	●	○	○	○	●	○	○	○	-	○
D100-330C	11	●	○	○	○	●	○	○	○	-	○
D100-300C	15	●	○	○	○	●	○	○	○	-	○
D125-250A	3	●	○	○	○	●	○	○	○	-	○
D125-250A	4	●	○	○	○	●	○	○	○	-	○
D125-250A	5,5	●	○	○	○	●	○	○	○	-	○
D125-250A	7,5	●	○	○	○	●	○	○	○	-	○
D125-270A	5,5	●	○	○	○	●	○	○	○	-	○
D125-270A	7,5	●	○	○	○	●	○	○	○	-	○
D125-270A	11	●	○	○	○	●	○	○	○	-	○
D125-270A	15	●	○	○	○	●	○	○	○	-	○
D125-270B	11	●	○	○	○	●	○	○	○	-	○
D125-270B	15	●	○	○	○	●	○	○	○	-	○
D125-270B	18,5	●	○	○	○	●	○	○	○	-	○
D125-270B	22	●	○	○	○	●	○	○	○	-	○
D125-330A	22	●	○	○	○	●	○	○	○	-	○
D125-330A	30	●	○	○	○	●	○	○	○	-	○
D150-250A	5,5	●	○	○	○	●	○	○	○	-	○
D150-250A	7,5	●	○	○	○	●	○	○	○	-	○
D150-250A	11	●	○	○	○	●	○	○	○	-	○
D150-270B	11	●	○	○	○	●	○	○	○	-	○
D150-270B	15	●	○	○	○	●	○	○	○	-	○
D150-270B	18,5	●	○	○	○	●	○	○	○	-	○
D150-270B	22	●	○	○	○	●	○	○	○	-	○
D150-300A	15	●	○	○	○	●	○	○	○	-	○
D150-300A	18,5	●	○	○	○	●	○	○	○	-	○
D150-300A	22	●	○	○	○	●	○	○	○	-	○
D200-250A	5,5	●	○	○	○	●	○	○	○	-	○
D200-250A	7,5	●	○	○	○	●	○	○	○	-	○
D200-250A	11	●	○	○	○	●	○	○	○	-	○
D200-250A	15	●	○	○	○	●	○	○	○	-	○
D200-270B	11	●	○	○	○	●	○	○	○	-	○
D200-270B	15	●	○	○	○	●	○	○	○	-	○
D200-270B	18,5	●	○	○	○	●	○	○	○	-	○
D200-270B	22	●	○	○	○	●	○	○	○	-	○
D200-350A	30	●	○	○	○	●	○	○	○	-	○

● Standard

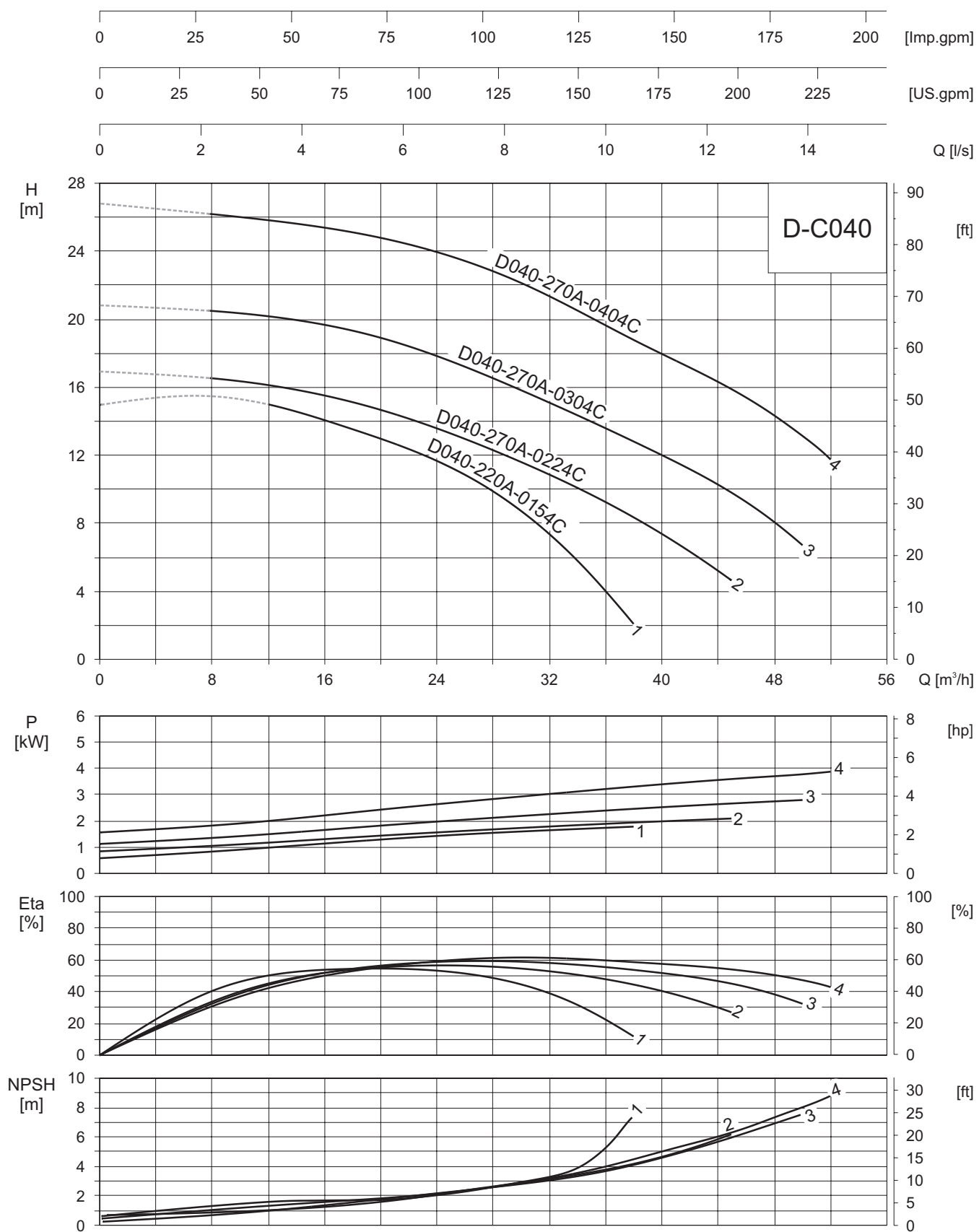
○ Option

- cannot be implemented

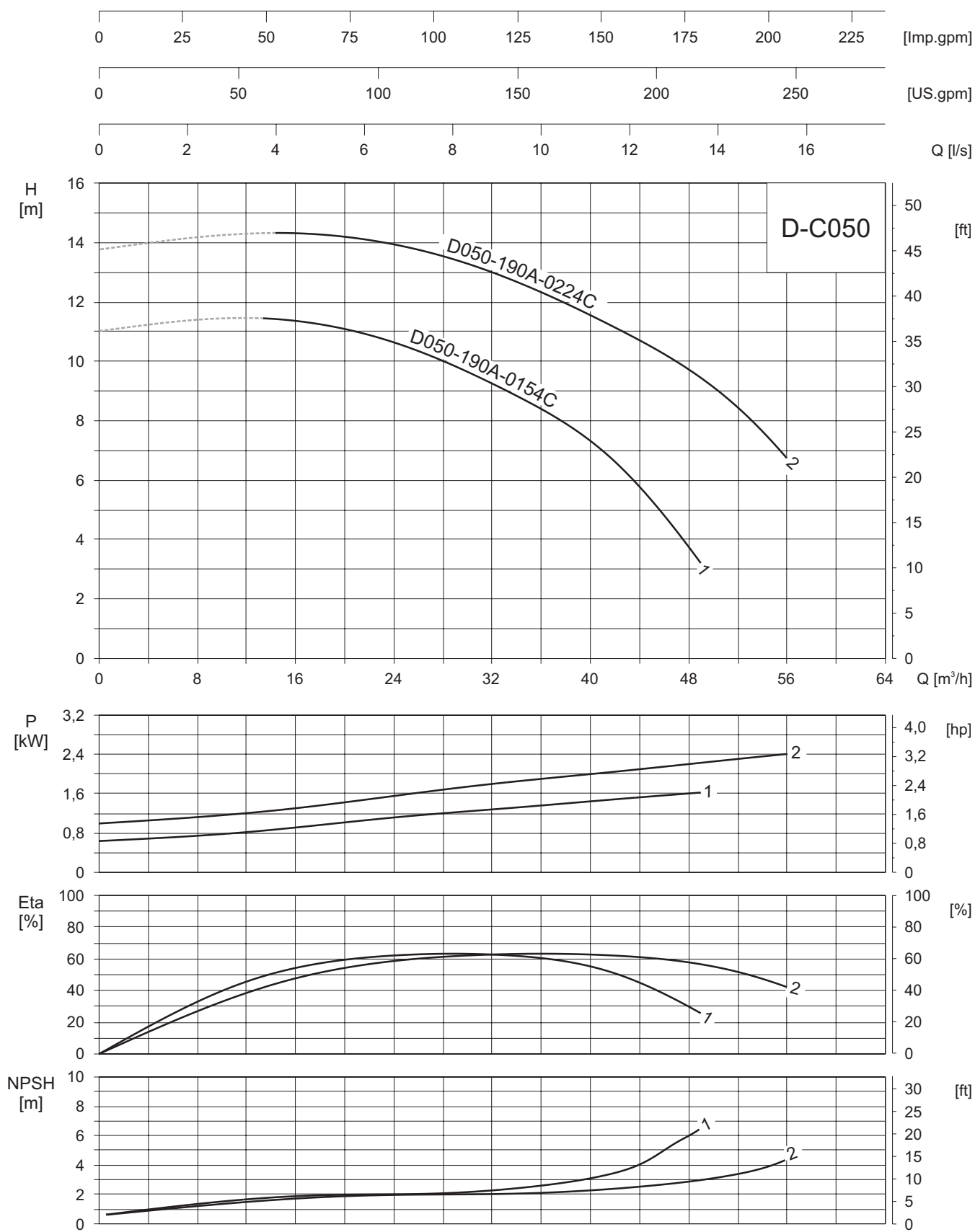
1500 rpm (400 V – 50 Hz)



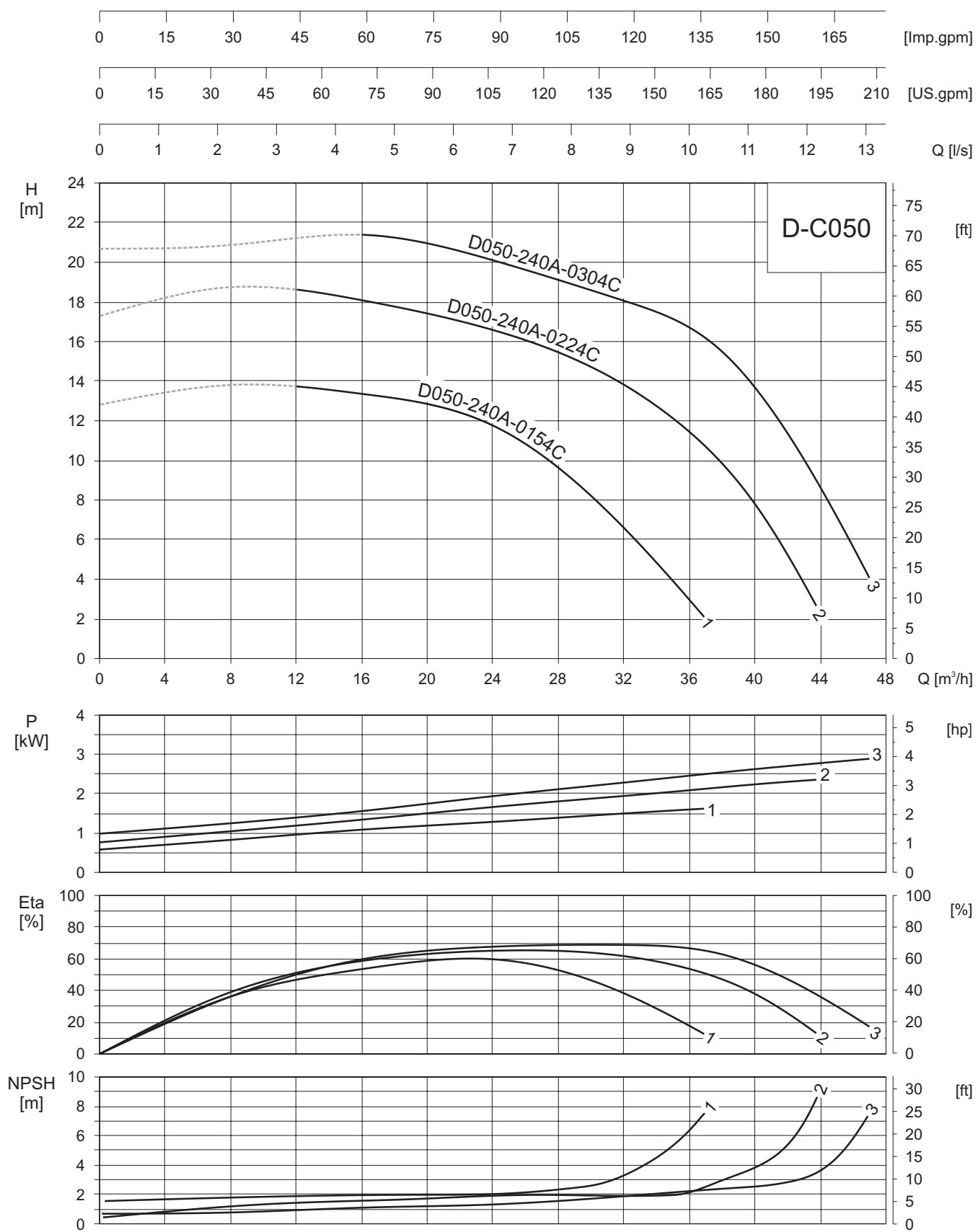
1500 rpm (400 V – 50 Hz)



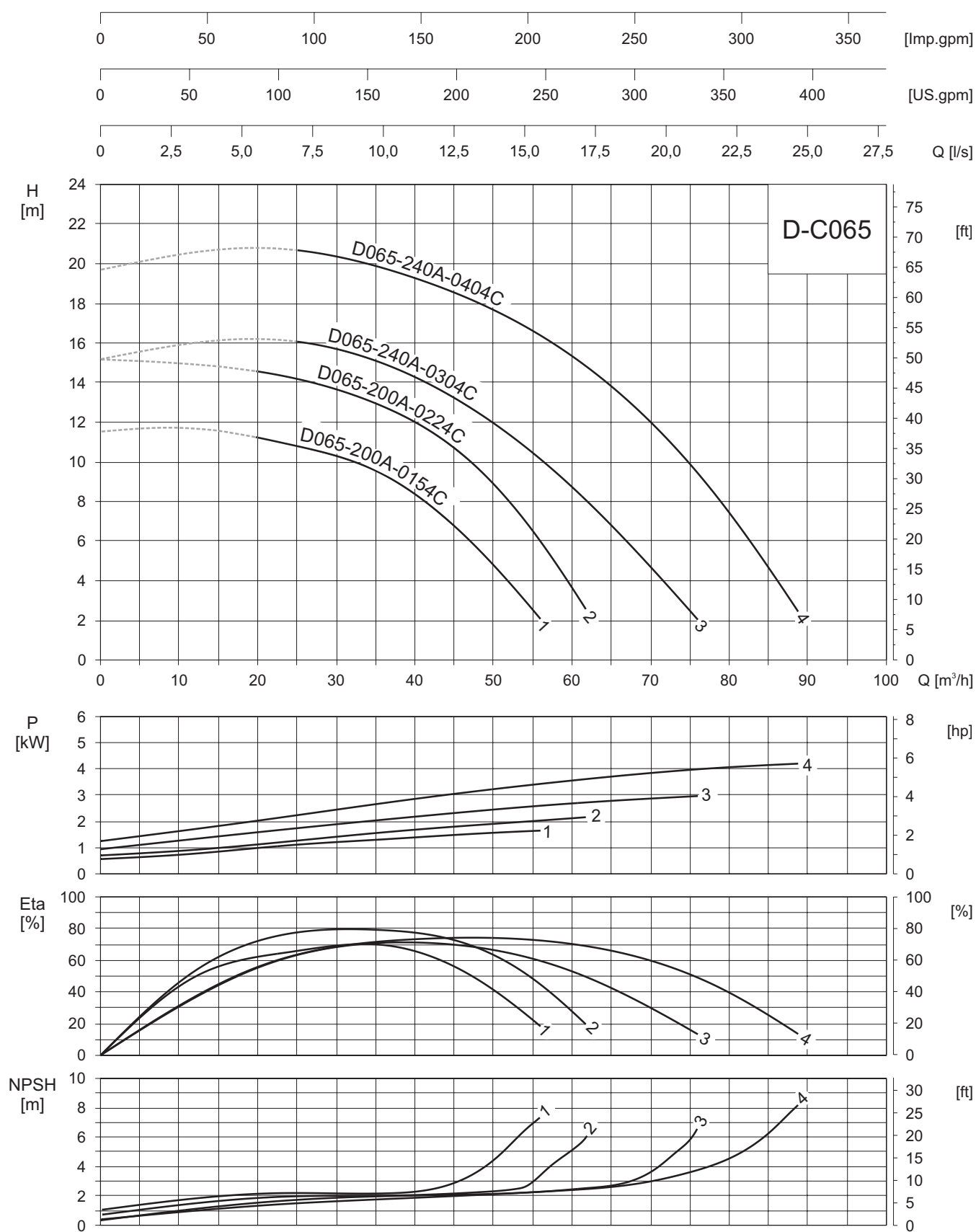
1500 rpm (400 V – 50 Hz)



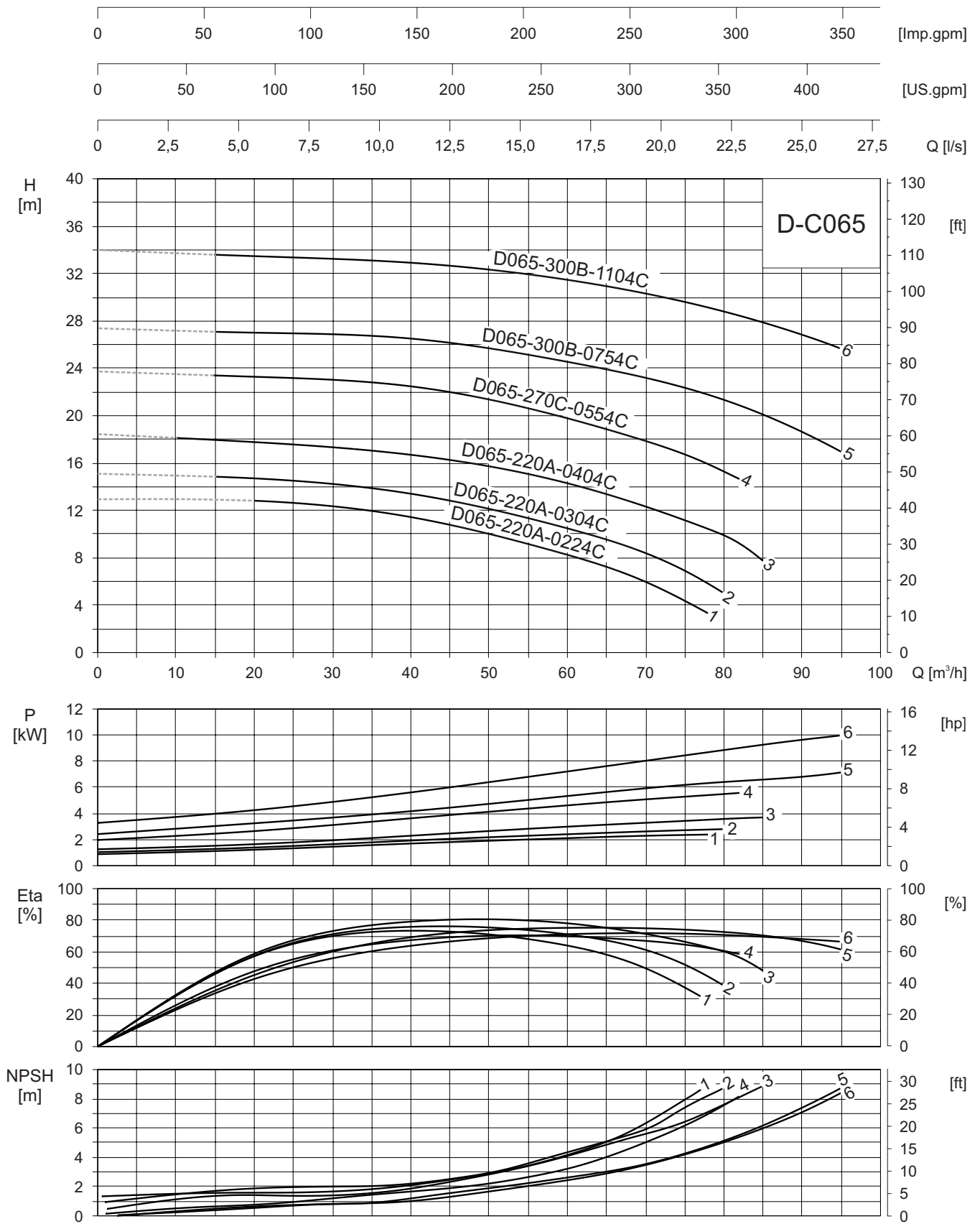
1500 rpm (400 V – 50 Hz)



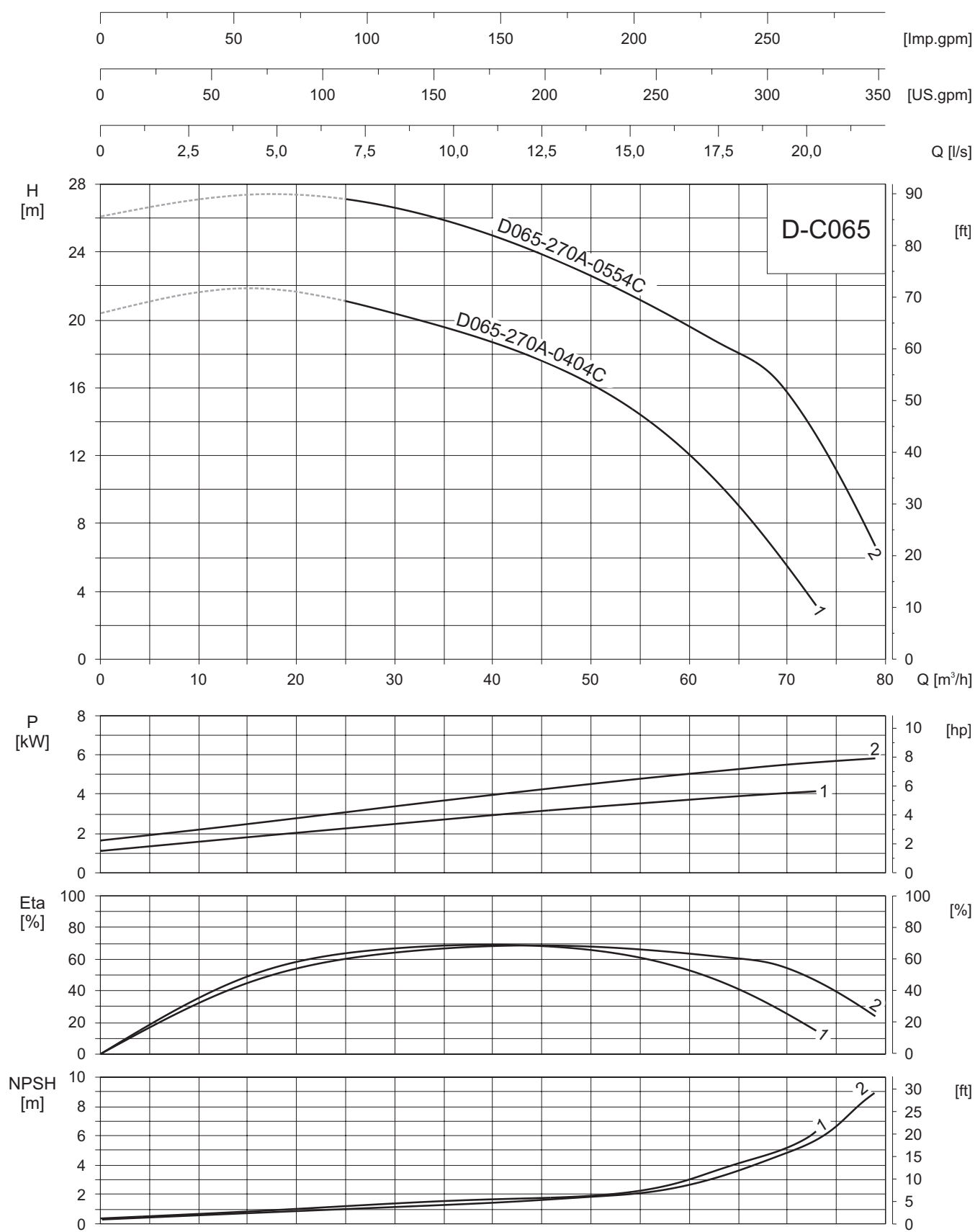
1500 rpm (400 V – 50 Hz)



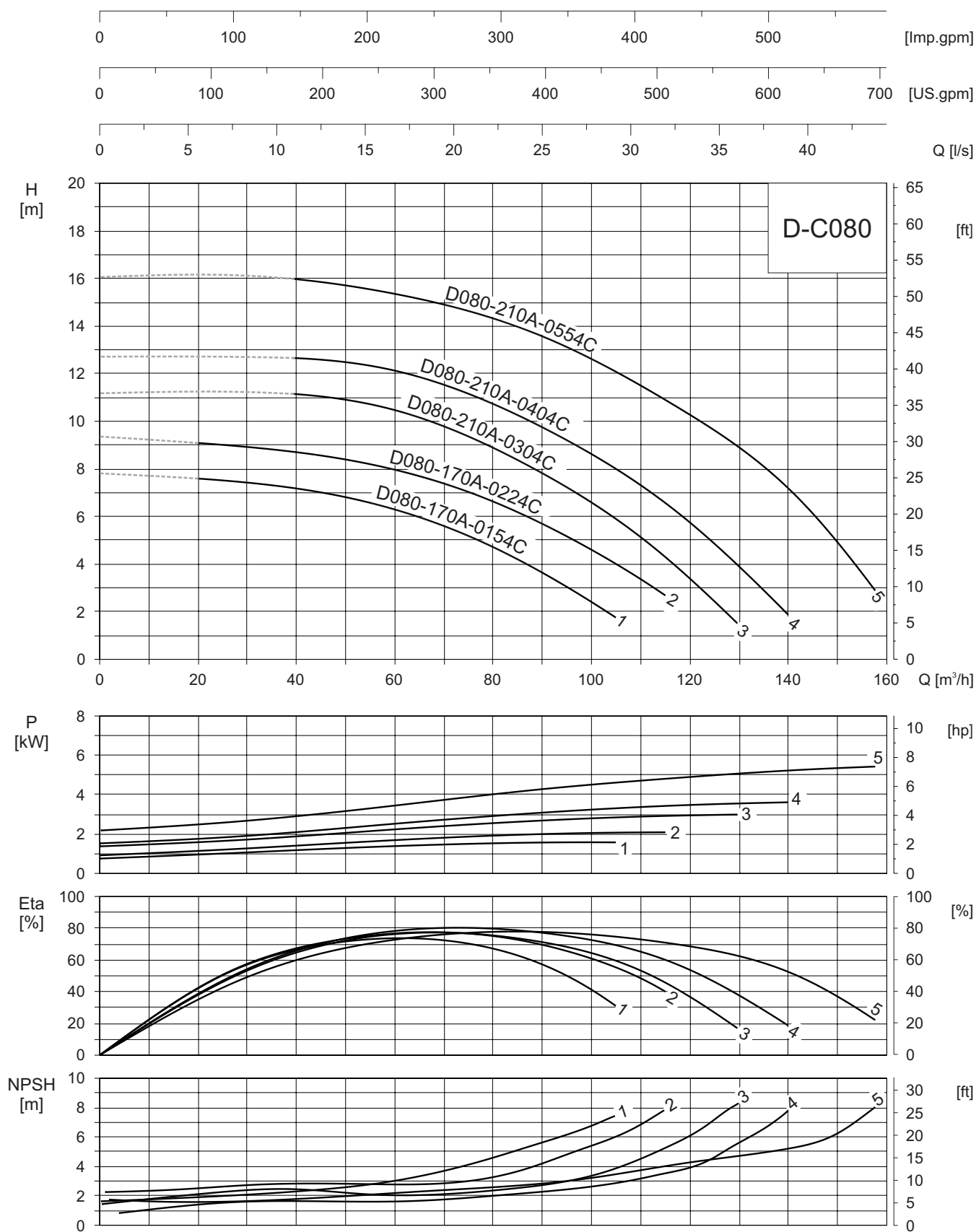
1500 rpm (400 V – 50 Hz)



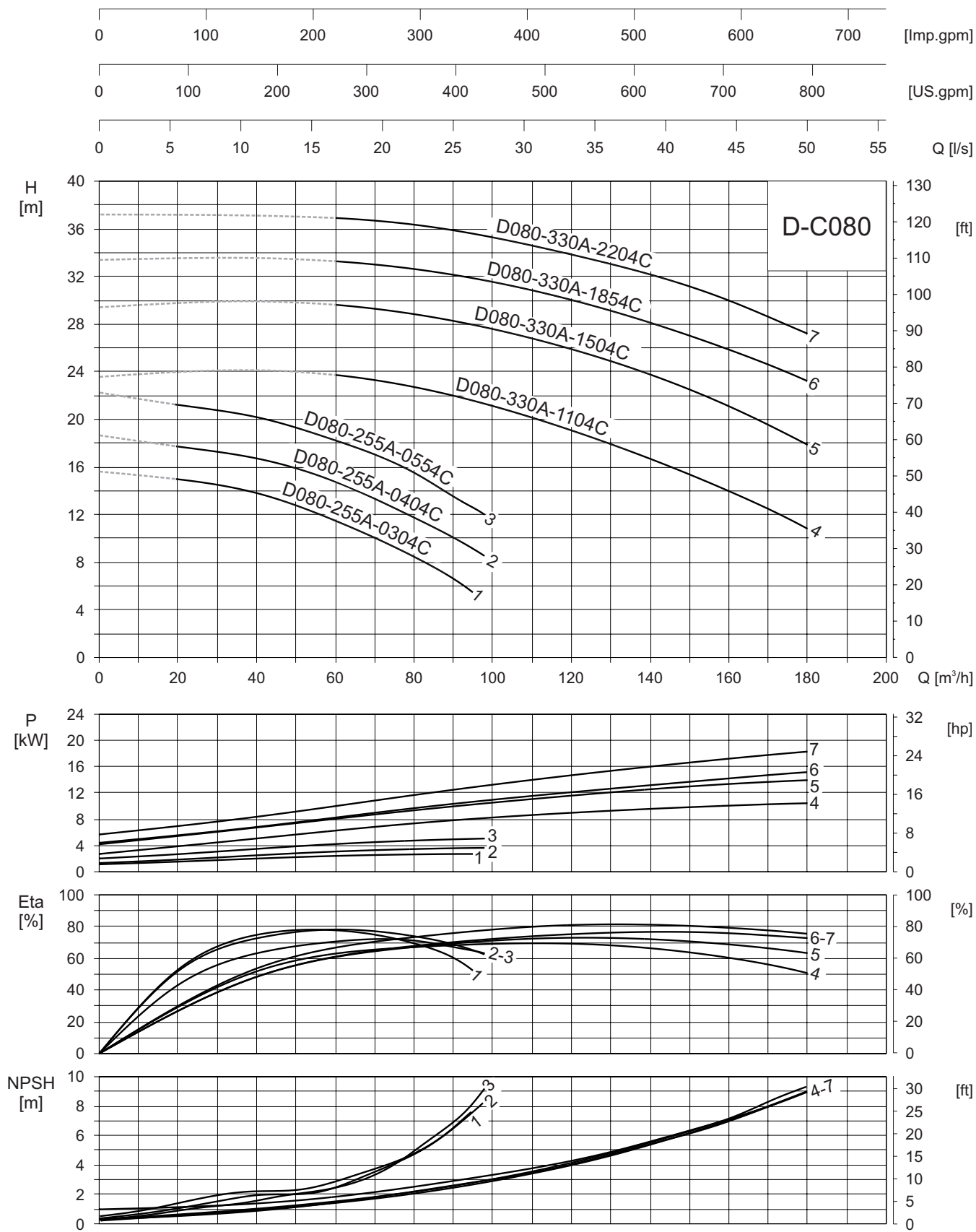
1500 rpm (400 V – 50 Hz)



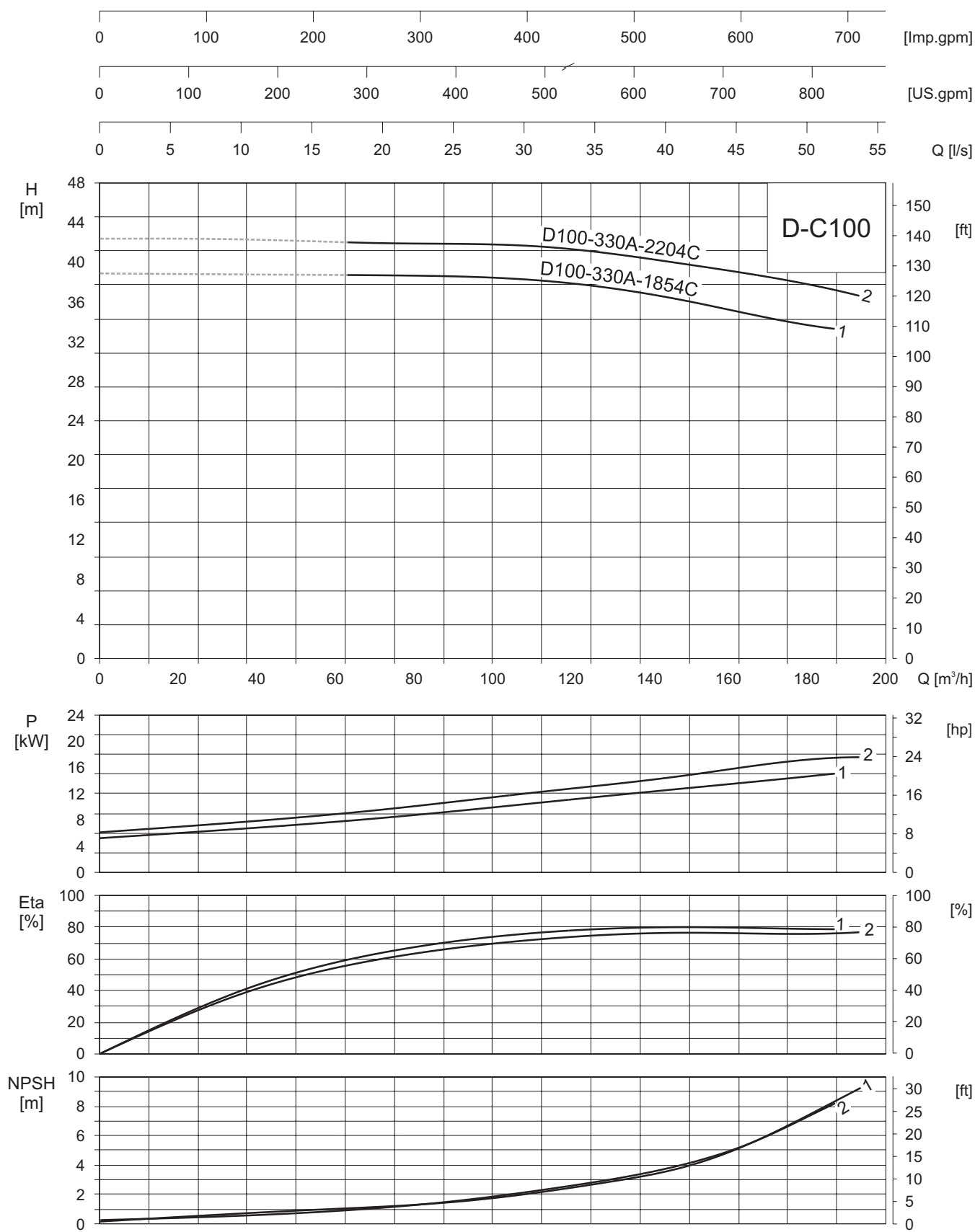
1500 rpm (400 V – 50 Hz)



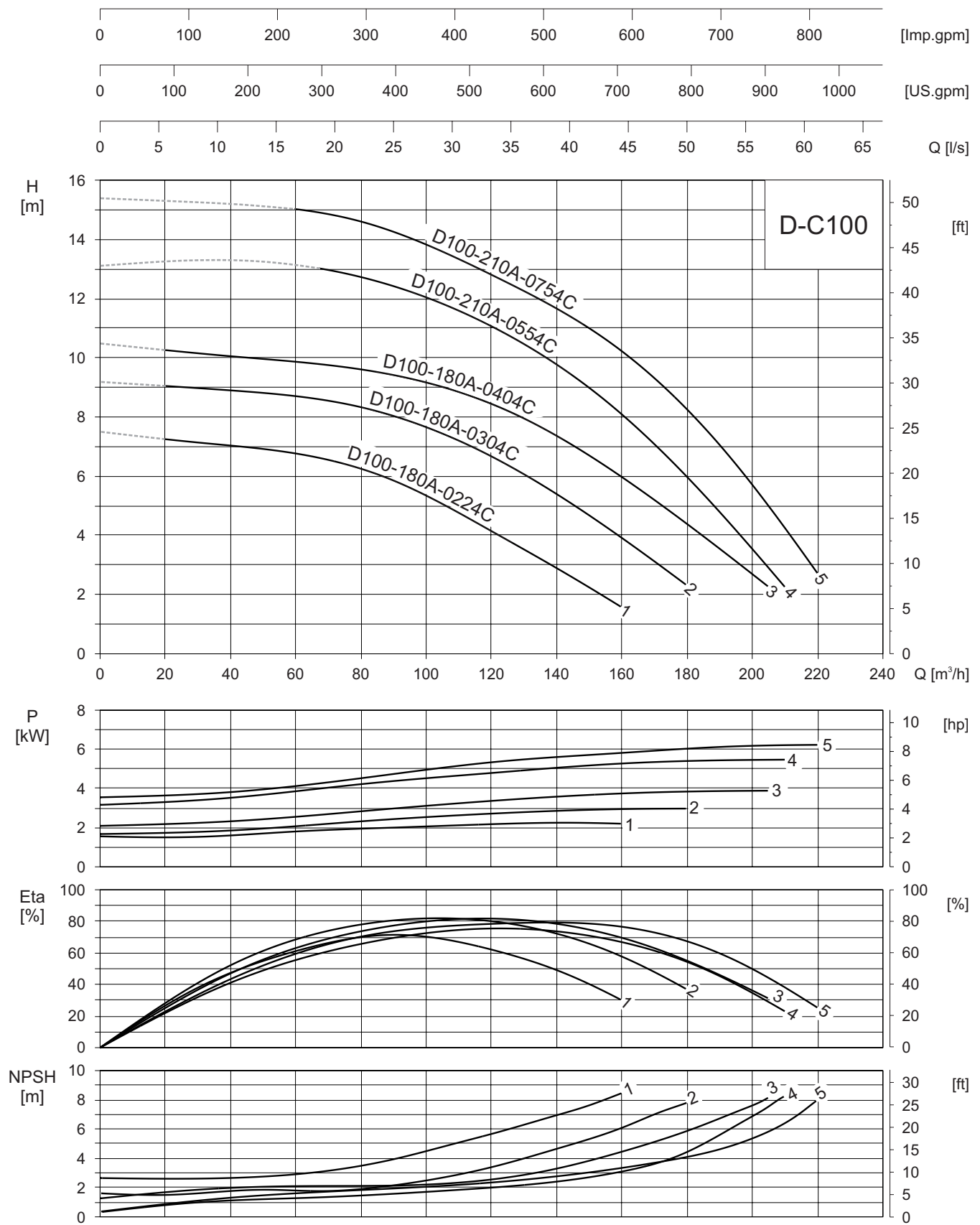
1500 rpm (400 V – 50 Hz)



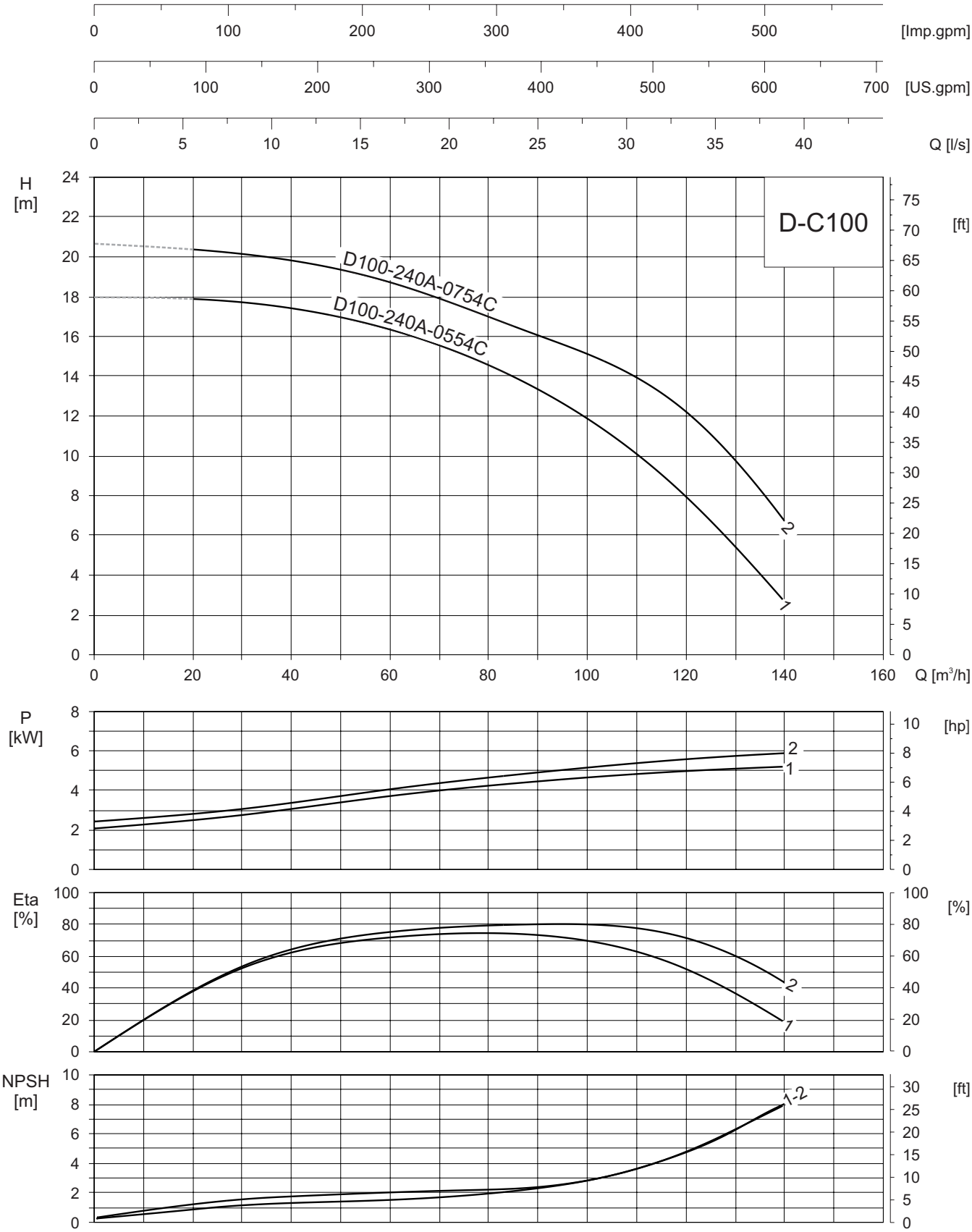
1500 rpm (400 V – 50 Hz)



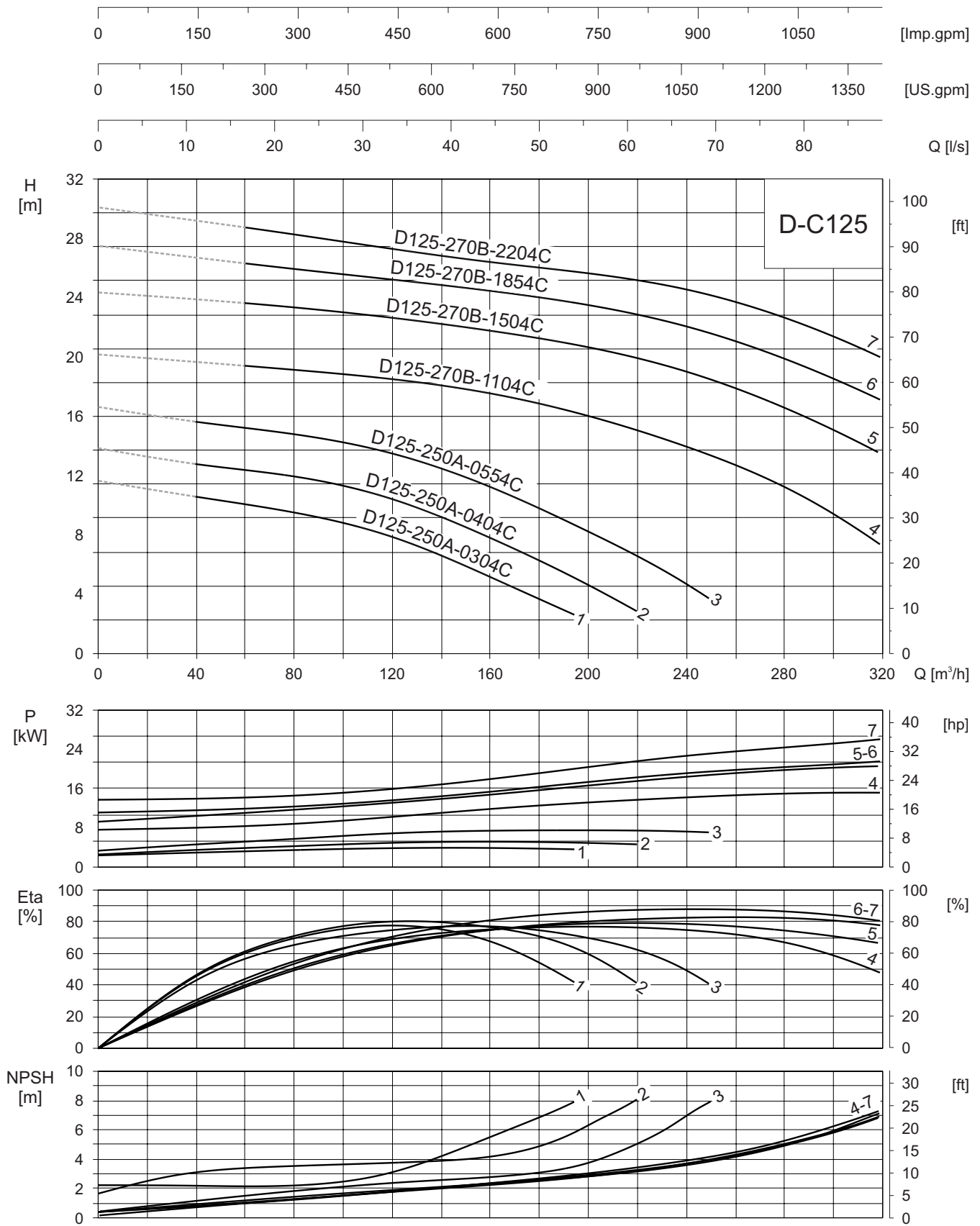
1500 rpm (400 V – 50 Hz)



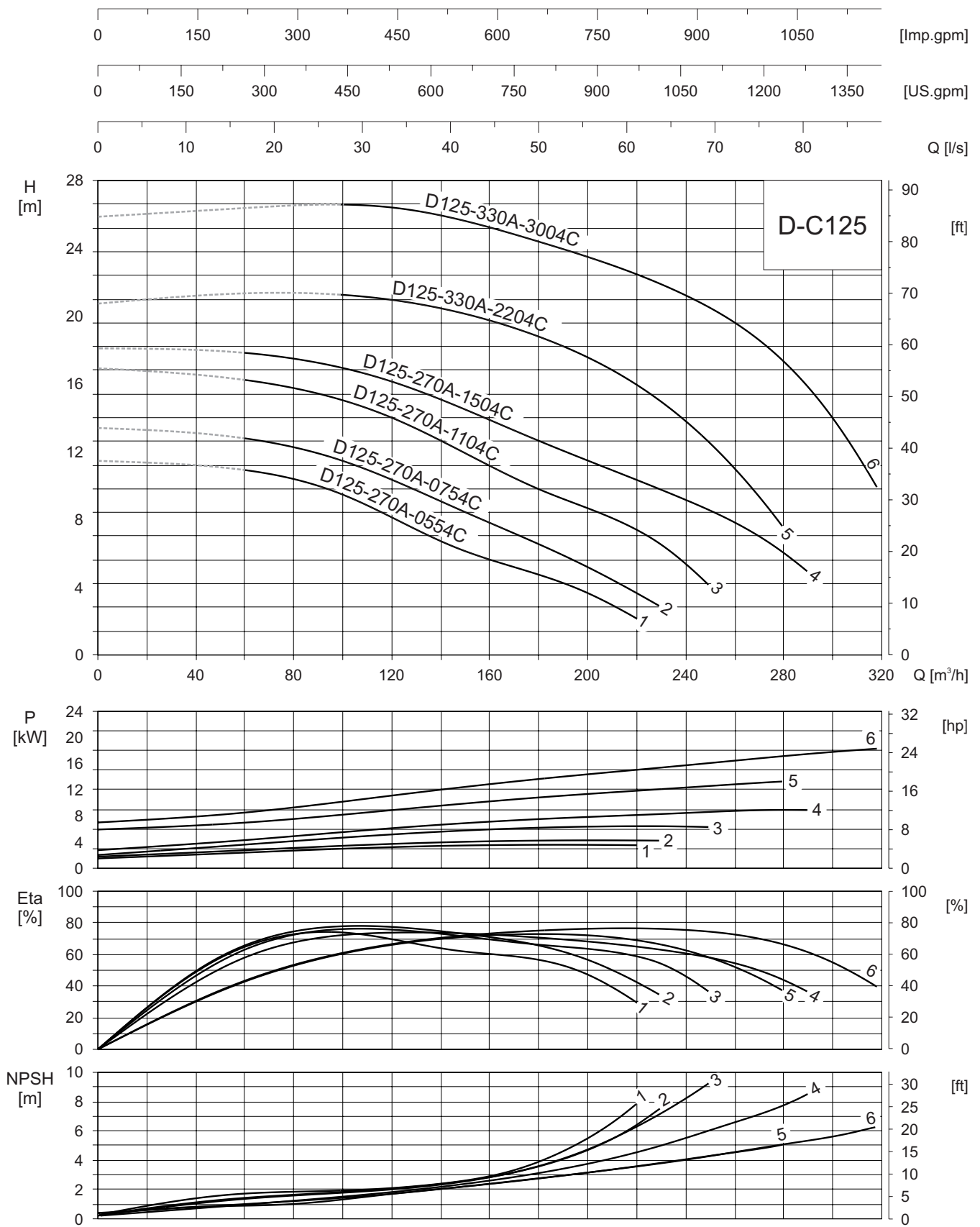
1500 rpm (400 V – 50 Hz)



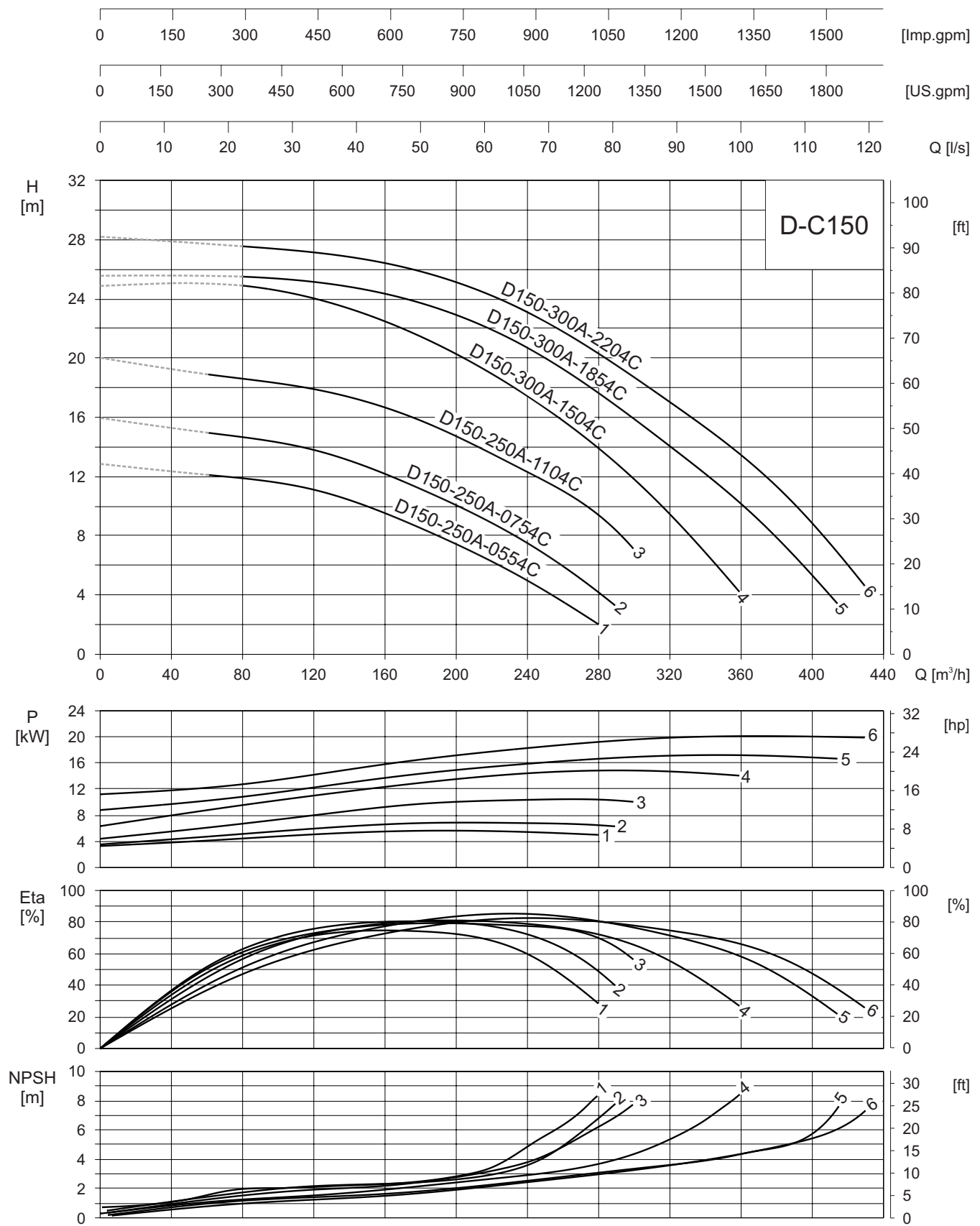
1500 rpm (400 V – 50 Hz)



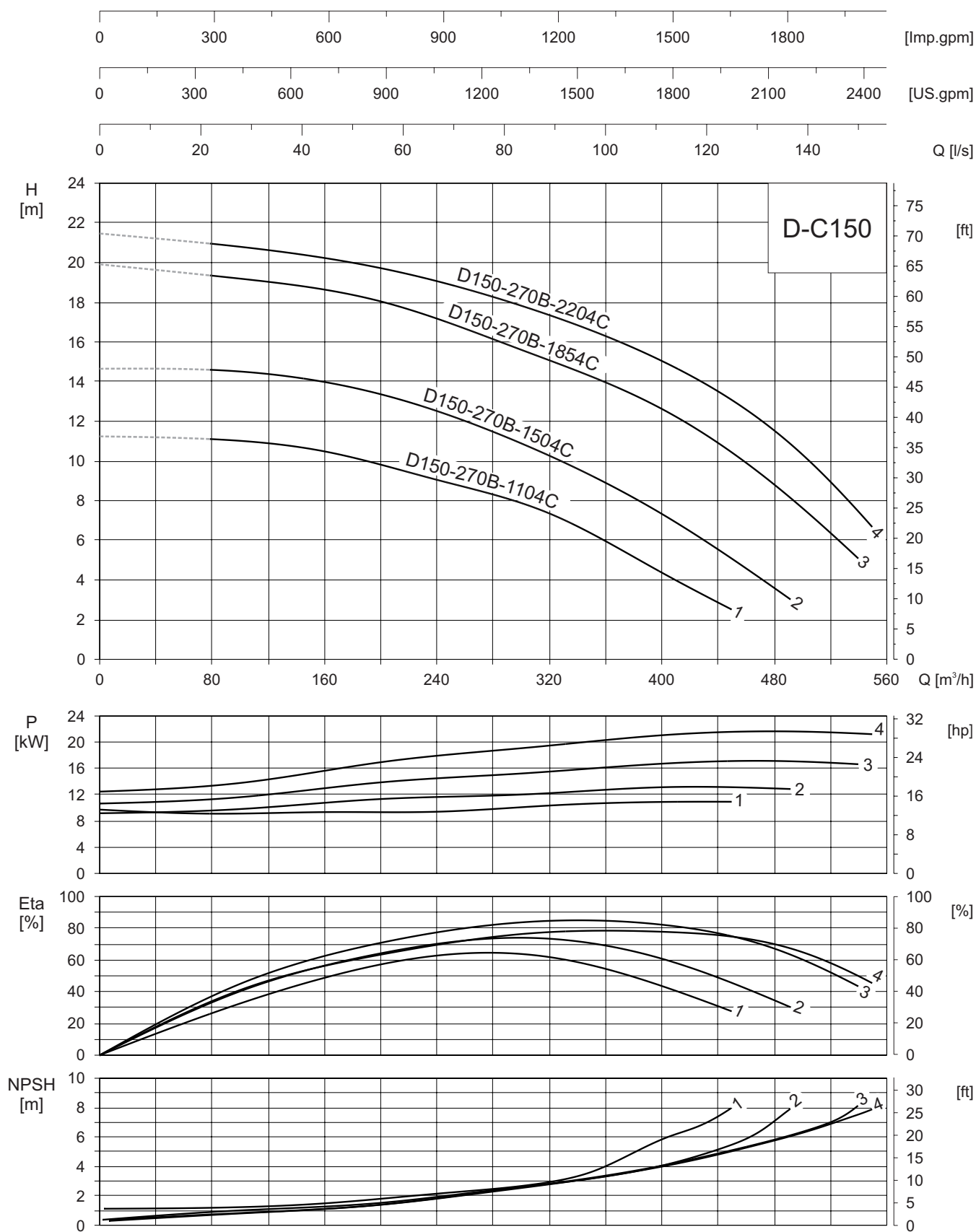
1500 rpm (400 V – 50 Hz)



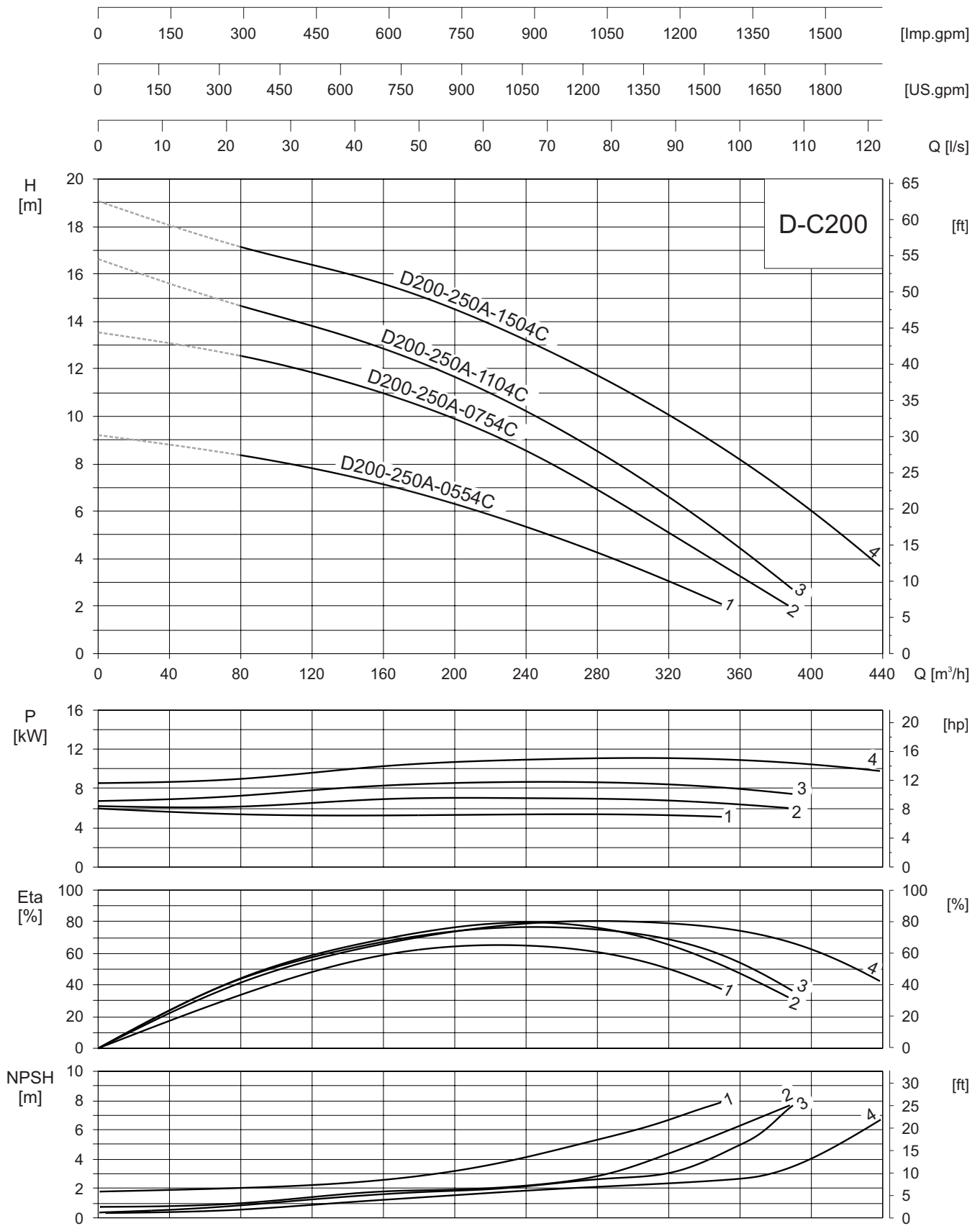
1500 rpm (400 V – 50 Hz)



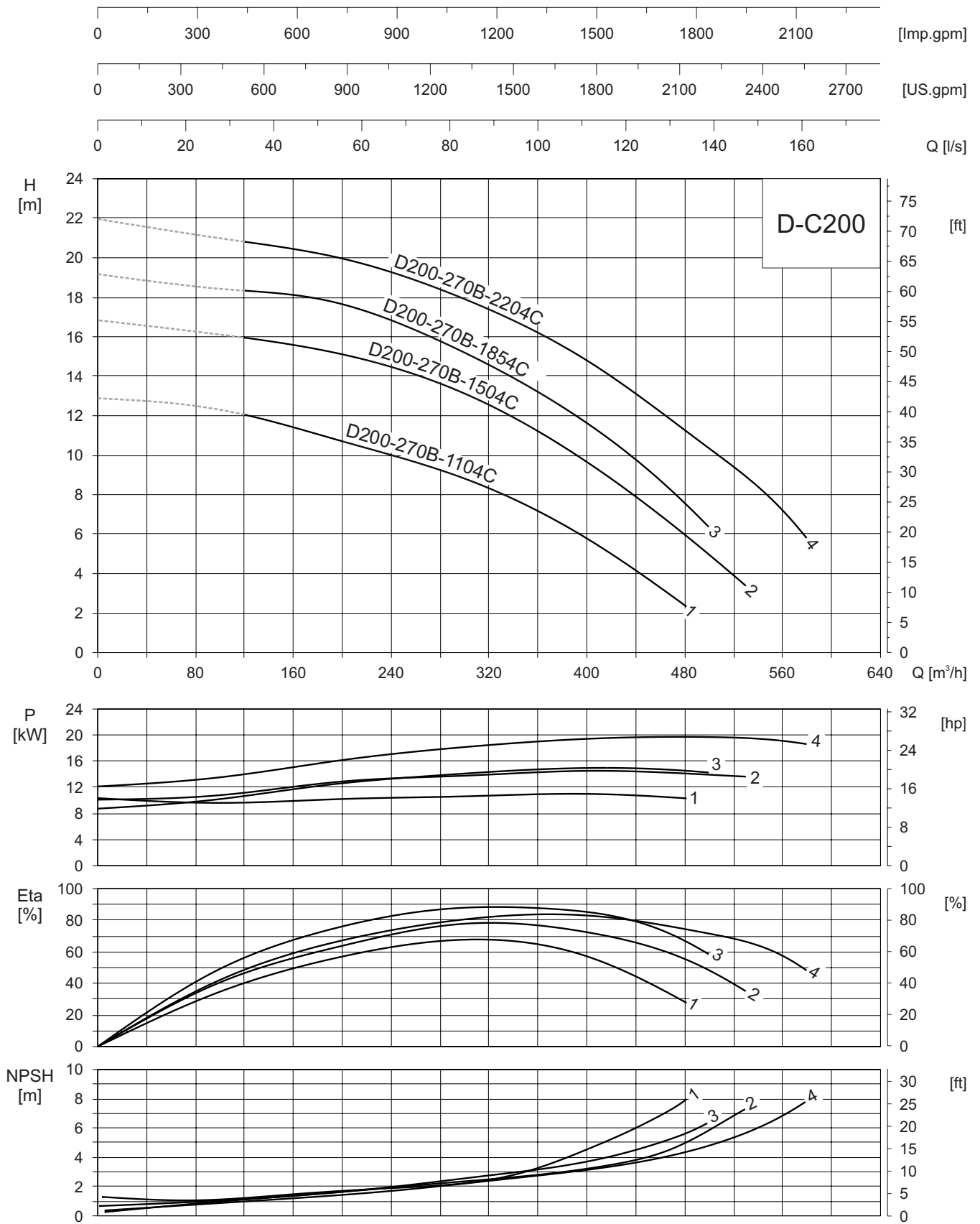
1500 rpm (400 V – 50 Hz)



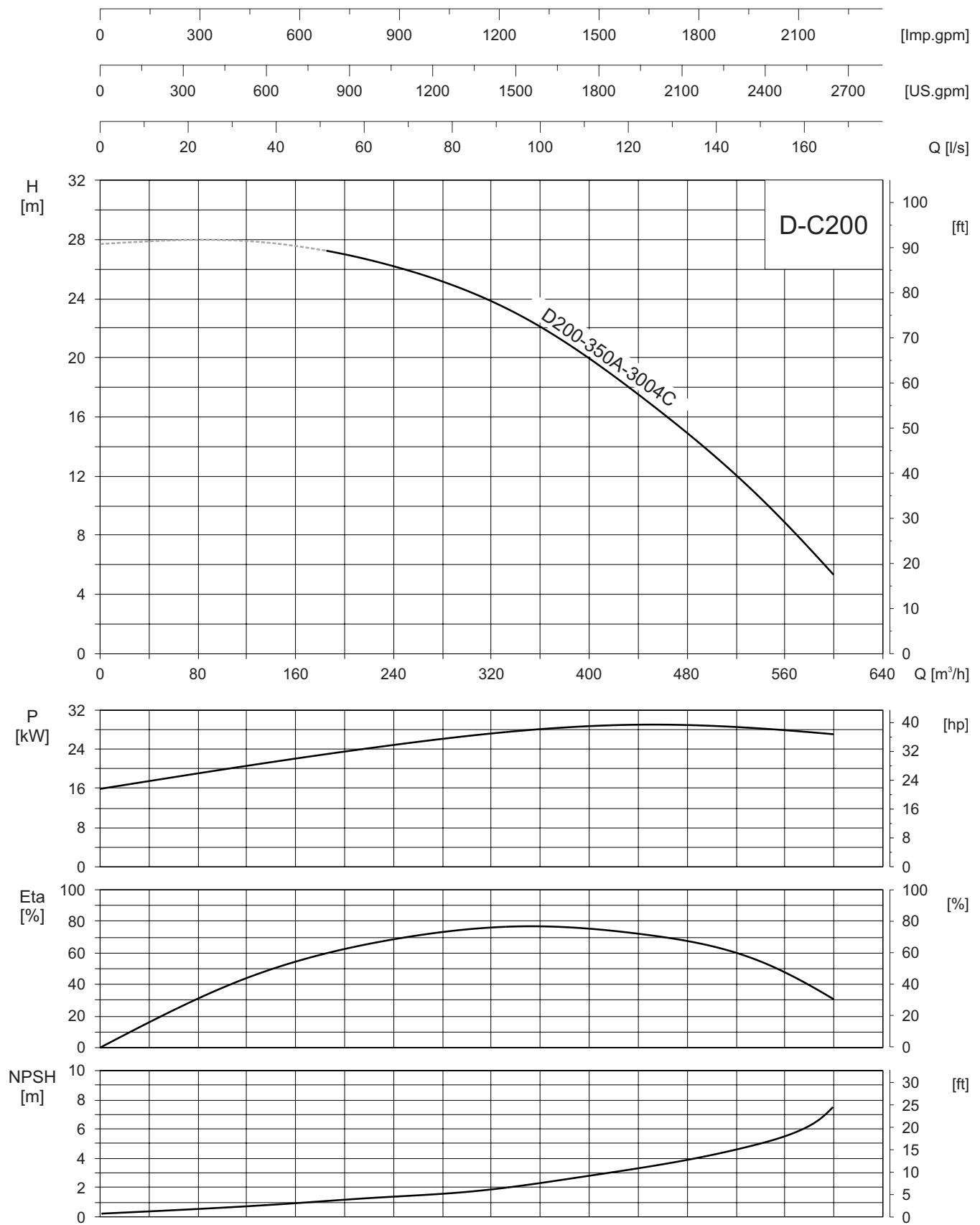
1500 rpm (400 V – 50 Hz)

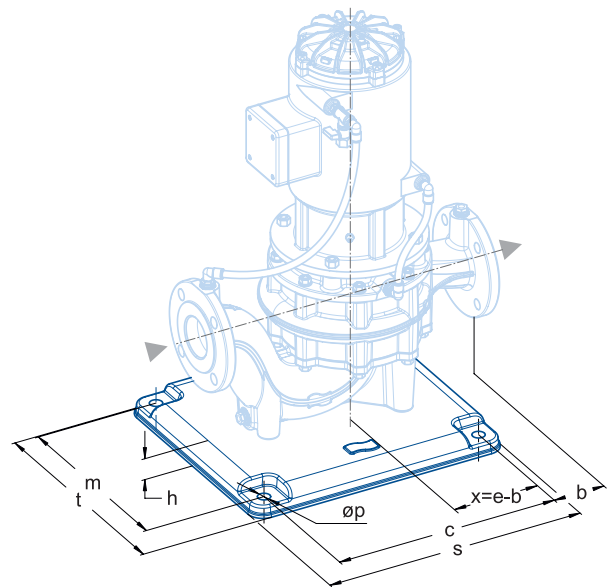
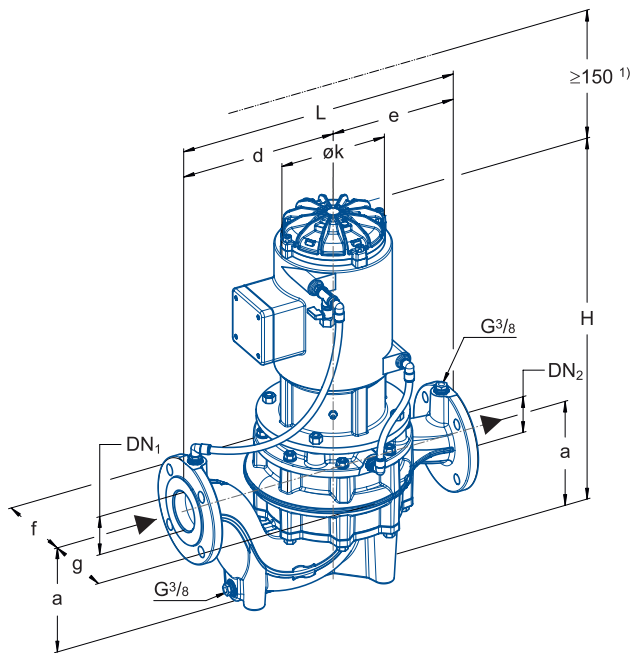


1500 rpm (400 V – 50 Hz)



1500 rpm (400 V – 50 Hz)





D-C, 50 Hz: 1500 rpm

Typ	P2 [kW] 50Hz	P2 [kW] 60Hz	DN _{1/2}	H	L	a	b	c	d	e	fmax	gmax	h	Ø k	m	p	s	t	m ²⁾ [kg]	m ³⁾ [kg]
D032-250A	1,5	1,8	32	620	495	193	69	390	270	225	160	160	40	192	340	21	454	404	87	109
D032-250A	2,2	2,6	32	620	495	193	69	390	270	225	160	160	40	192	340	21	454	404	87	108
D032-250A	3	3,6	32	632	495	193	69	390	270	225	160	160	40	192	340	21	454	404	83	105
D032-250A	4	4,8	32	692	495	193	69	390	270	225	185	185	40	218	340	21	454	404	93	115
D032-250A	2,2	2,6	32	620	495	193	69	390	270	225	160	160	40	192	340	21	454	404	87	109
D040-220A	1,5	1,8	40	603	460	170	65	390	260	200	160	160	40	192	340	21	454	404	81	103
D040-270A	2,2	2,6	40	623	514	195	91	390	280	234	178	162	40	192	340	21	454	404	92	114
D040-270A	3	3,6	40	631	514	195	91	390	280	234	178	162	40	192	340	21	454	404	88	109
D040-270A	4	4,8	40	691	514	195	91	390	280	234	185	185	40	218	340	21	454	404	97	119
D050-140A	1,5	1,8	50	623	410	187	30	390	250	160	160	160	40	192	340	21	454	404	66	87
D050-190A	1,5	1,8	50	626	460	190	70	390	260	200	160	160	40	192	340	21	454	404	76	97
D050-190A	2,2	2,6	50	624	460	190	70	390	260	200	160	160	40	192	340	21	454	404	74	95
D050-240A	1,5	1,8	50	614	500	185	77	390	280	220	170	160	40	192	340	21	454	404	80	102
D050-240A	2,2	2,6	50	614	500	185	77	390	280	220	170	160	40	192	340	21	454	404	80	102
D050-240A	3	3,6	50	624	500	185	77	390	280	220	170	160	40	192	340	21	454	404	77	99
D050-300A	5,5	6,6	50	709	600	210	55	630	320	280	195	185	45	218	530	25	704	604	122	173
D065-200A	1,5	1,8	65	646	505	193	90	390	280	225	160	160	40	192	340	21	454	404	87	109
D065-200A	2,2	2,6	65	634	505	193	90	390	280	225	160	160	40	192	340	21	454	404	86	108
D065-220A	2,2	2,6	65	609	533	170	165	300	283	250	170	160	35	192	250	17	354	304	82	93
D065-220A	3	3,6	65	609	533	170	165	300	283	250	170	160	35	192	250	17	354	304	77	88
D065-220A	4	4,8	65	669	533	170	165	300	283	250	185	185	35	218	250	17	354	304	86	98
D065-240A	3	3,6	65	646	560	205	105	390	310	250	184	160	40	192	340	21	454	404	88	110
D065-240A	4	4,8	65	706	560	205	105	390	310	250	185	185	40	218	340	21	454	404	98	119
D065-270A	4	4,8	65	706	560	205	95	390	320	240	185	185	40	218	340	21	454	404	104	126
D065-270A	5,5	6,6	65	706	560	205	95	390	320	240	185	185	40	218	340	21	454	404	105	127
D065-270C	5,5	6,6	65	708	570	205	105	390	320	250	192	185	40	218	340	21	454	404	107	129
D065-300B	7,5	9	65	732	615	225	130	390	340	275	211	191	40	218	340	21	454	404	128	150
D065-300B	11	13,2	65	797	615	225	130	390	340	275	211	208	40	258	340	21	454	404	172	194
D080-170A	1,5	1,8	80	656	545	220	95	390	320	225	165	160	40	192	340	21	454	404	83	105
D080-170A	2,2	2,6	80	669	545	220	95	390	320	225	165	160	40	192	340	21	454	404	83	105
D080-210A	3	3,6	80	678	595	240	115	390	345	250	188	160	40	192	340	21	454	404	89	110
D080-210A	4	4,8	80	738	595	240	115	390	345	250	188	185	40	218	340	21	454	404	98	120

¹⁾ When dismantling the motor, ensure there is sufficient room for the lifting device.

²⁾ Total weight of the pump

³⁾ Total weight of the pump with pump support

Flange connection dimensions according to DIN 2501 PN 10

Dimensions with frequency converter for direct installation on request.

Typ	P2 [kW] 50Hz	P2 [kW] 60Hz	DN _{1/2}	H	L	a	b	c	d	e	fmax	gmax	h	Ø k	m	p	s	t	m ²⁾ [kg]	m ³⁾ [kg]
D080-210A	5,5	6,6	80	738	595	240	115	390	345	250	188	185	40	218	340	21	454	404	111	132
D080-255A	3	3,6	80	665	630	230	135	390	350	280	190	167	40	192	340	21	454	404	110	131
D080-255A	4	4,8	80	725	630	230	135	390	350	280	190	185	40	218	340	21	454	404	119	141
D080-255A	5,5	6,6	80	725	630	230	135	390	350	280	190	185	40	218	340	21	454	404	110	131
D080-330A	11	13,2	80	848	715	265	90	630	400	315	248	214	45	258	530	25	704	604	213	264
D080-330A	15	18	80	848	715	265	90	630	400	315	248	214	45	258	530	25	704	604	213	264
D080-330A	18,5	22,2	80	1022	715	265	90	630	400	315	262	262	45	312	530	25	704	604	361	413
D080-330A	22	26,4	80	1022	715	265	90	630	400	315	262	262	45	312	530	25	704	604	374	425
D100-180A	2,2	2,6	100	712	630	260	162	390	350	280	185	160	40	192	340	21	454	404	101	123
D100-180A	3	3,6	100	718	630	260	162	390	350	280	185	160	40	192	340	21	454	404	95	117
D100-180A	4	4,8	100	778	630	260	162	390	350	280	185	185	40	218	340	21	454	404	104	126
D100-200A	2,2	2,6	100	716	655	280	162	390	375	280	220	164	40	192	340	21	454	404	100	122
D100-200A	3	3,6	100	721	655	280	162	390	375	280	220	164	40	192	340	21	454	404	96	117
D100-200A	4	4,8	100	781	655	280	162	390	375	280	220	185	40	218	340	21	454	404	105	127
D100-210A	3	3,6	100	721	645	280	162	390	365	280	197	163	40	192	340	21	454	404	97	119
D100-210A	4	4,8	100	781	645	280	162	390	365	280	197	185	40	218	340	21	454	404	107	128
D100-210A	5,5	6,6	100	781	645	280	162	390	365	280	197	185	40	218	340	21	454	404	119	141
D100-210A	7,5	9	100	781	645	280	162	390	365	280	197	185	40	218	340	21	454	404	122	144
D100-240A	5,5	6,6	100	740	650	245	135	390	370	280	202	185	40	218	340	21	454	404	114	136
D100-240A	7,5	9	100	740	650	245	135	390	370	280	202	185	40	218	340	21	454	404	118	139
D100-270A	5,5	6,6	100	750	640	255	152	390	370	270	198	185	40	218	340	21	454	404	122	144
D100-270A	7,5	9	100	750	640	255	152	390	370	270	198	185	40	218	340	21	454	404	125	147
D100-270A	11	13,2	100	843	640	255	152	390	370	270	208	208	40	258	340	21	454	404	174	196
D100-330A	18,5	22,2	100	978	705	245	205	390	390	315	262	262	40	312	340	21	454	404	334	356
D100-330A	22	26,4	100	978	705	245	205	390	390	315	262	262	40	312	340	21	454	404	347	369
D100-330C	11	13,2	100	821	710	250	90	630	395	315	225	208	45	258	530	25	704	604	200	251
D100-330C	15	18	100	821	710	250	90	630	395	315	225	208	45	258	530	25	704	604	200	251
D125-250A	3	3,6	125	726	810	290	165	630	455	355	260	188	45	192	530	25	704	604	140	191
D125-250A	4	4,8	125	786	810	290	165	630	455	355	260	188	45	218	530	25	704	604	150	201
D125-250A	5,5	6,6	125	786	810	290	165	630	455	355	260	188	45	218	530	25	704	604	149	200
D125-250A	7,5	9	125	786	810	290	165	630	455	355	260	188	45	218	530	25	704	604	152	204
D125-270A	5,5	6,6	125	750	729	245	239	390	374	355	209	185	40	218	340	21	454	404	129	150
D125-270A	7,5	9	125	750	729	245	239	390	374	355	209	185	40	218	340	21	454	404	132	153
D125-270A	11	13,2	125	820	729	245	239	390	374	355	209	208	40	258	340	21	454	404	177	199
D125-270A	15	18	125	820	729	245	239	390	374	355	209	208	40	258	340	21	454	404	177	199
D125-270B	11	13,2	125	888	805	310	165	630	450	355	260	212	45	258	530	25	704	604	202	253
D125-270B	15	18	125	888	805	310	165	630	450	355	260	212	45	258	530	25	704	604	202	253
D125-270B	18,5	22,2	125	1019	805	310	165	630	450	355	262	262	45	312	530	25	704	604	332	383
D125-270B	22	26,4	125	1019	805	310	165	630	450	355	262	262	45	312	530	25	704	604	344	396
D125-330A	22	26,4	125	1056	805	325	150	630	450	355	262	262	45	312	530	25	704	604	383	435
D125-330A	30	36	125	1010	805	325	150	630	450	355	262	262	45	312	530	25	704	604	395	446
D150-250A	5,5	6,6	150	820	875	320	205	630	500	375	277	203	45	218	530	25	704	604	167	219
D150-250A	7,5	9	150	820	875	320	205	630	500	375	277	203	45	218	530	25	704	604	171	222
D150-250A	11	13,2	150	894	875	320	205	630	500	375	277	208	45	258	530	25	704	604	219	270
D150-270B	11	13,2	150	949	925	370	200	630	550	375	313	247	45	258	530	25	704	604	240	291
D150-270B	15	18	150	949	925	370	200	630	550	375	313	247	45	258	530	25	704	604	240	291
D150-270B	18,5	22,2	150	1080	925	370	200	630	550	375	313	262	45	312	530	25	704	604	370	421
D150-270B	22	26,4	150	1080	925	370	200	630	550	375	313	262	45	312	530	25	704	604	382	434
D150-300A	15	18	150	911	825	340	125	630	495	330	268	212	45	258	530	25	704	604	228	279
D150-300A	18,5	22,2	150	1079	825	340	125	630	495	330	268	262	45	312	530	25	704	604	366	418
D150-300A	22	26,4	150	1079	825	340	125	630	495	330	268	262	45	312	530	25	704	604	379	430
D200-250A	5,5	6,6	200	894	890	380	180	630	540	350	268	212	45	218	530	25	704	604	186	237
D200-250A	7,5	9	200	894	890	380	180	630	540	350	268	212	45	218	530	25	704	604	189	240
D200-250A	11	13,2	200	968	890	380	180	630	540	350	268	212	45	258	530	25	704	604	234	285
D200-250A	15	18	200	968	890	380	180	630	540	350	268	212	45	258	530	25	704	604	234	285
D200-270B	11	13,2	200	997	920	390	195	630	550	370	286	221	45	258	530	25	704	604	249	300
D200-270B	15	18	200	997	920	390	195	630	550	370	286	221	45	258	530	25	704	604	249	300
D200-270B	18,5	22,2	200	1137	920	390	195	630	550	370	286	262	45	312	530	25	704	604	381	432
D200-270B	22	26,4	200	1137	920	390	195	630	550	370	286	262	45	312	530	25	704	604	394	445
D200-350A	30	36	200	1107	958	352	205	630	558	400	333	263	45	312	530	25	704	604	461	512

1) When dismounting the motor, ensure there is sufficient room for the lifting device.

2) Total weight of the pump

3) Total weight of the pump with pump support

Flange connection dimensions according to DIN 2501 PN 10

Dimensions with frequency converter for direct installation on request.

50 Hz: 1500 rpm (400 V)

P_2 [kW]	I [A]	I_A/I_N	dB(A)
1.5	3.15	7.6	49
2.2	4.9	6.6	49
3.0	7.1	4.6	49
4.0	8.6	5.3	49
5.5	12.0	5.4	49
7.5	17.1	5.3	49
11.0	20.9	5.8	50
15.0	30.0	6.0	50
18.5	41.0	6.5	52
22.0	44.5	6.5	52
30.0	57.5	6.0	52

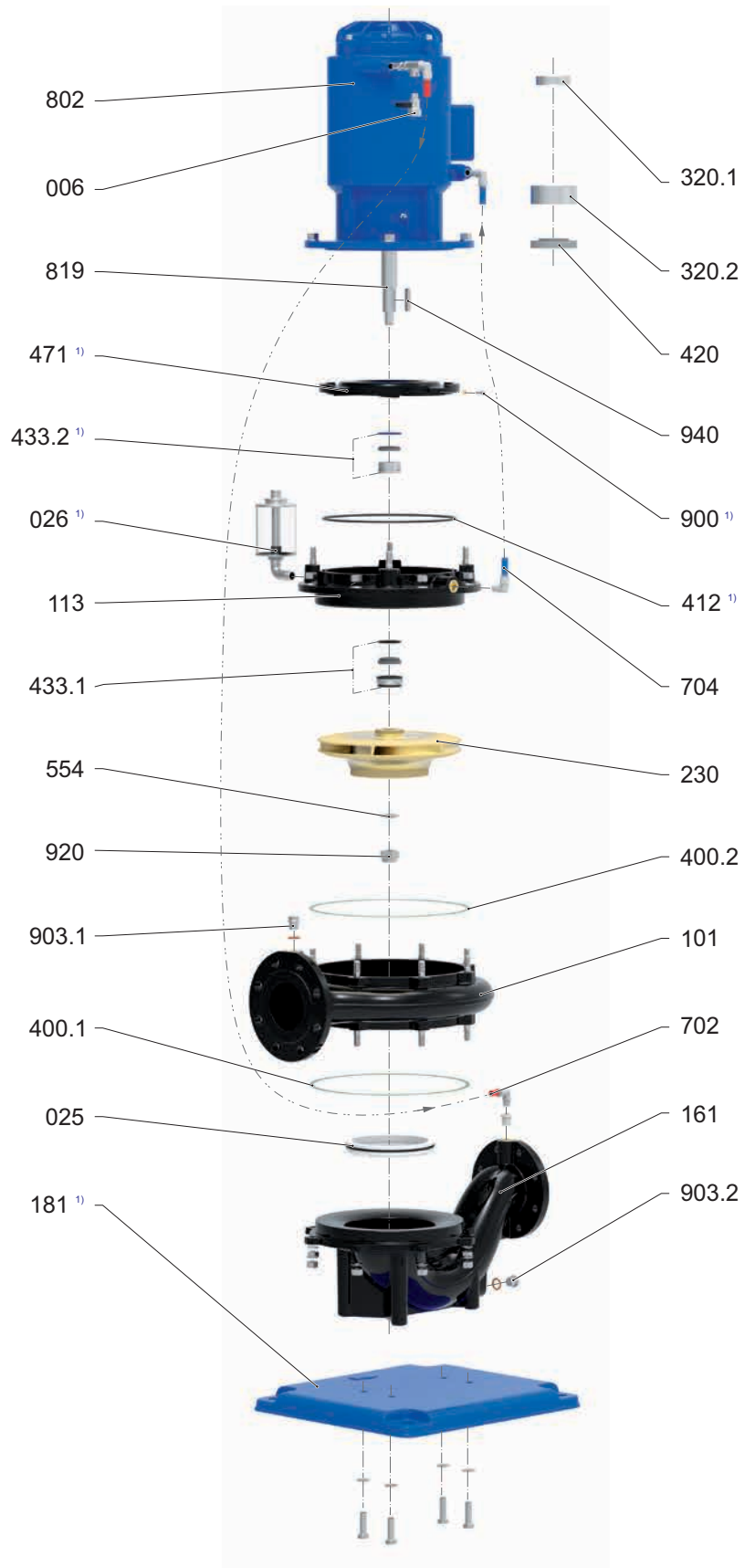
Legend: P_2 : Rated power

I: Rated current

 I_A/I_N : Locked-rotor current to rated currentdB(A): Sound pressure level of the entire pump. Tolerance ± 3 dB(A)

Individual components

006	Ball valve
025	Impeller protector
026 ¹⁾	Seal-Guard-System
101	Pump casing
113	Intermediate casing
161	Casing cover
181 ¹⁾	Pump support
230	Impeller
320.1	Anti-friction bearing (non-drive side)
320.2	Anti-friction bearing (drive side)
400.1	Gasket
400.2	Gasket
412 ¹⁾	O-ring
420	Shaft seal ring
433.1	Mechanical seal
433.2 ¹⁾	Mechanical seal
471 ¹⁾	Seal cover
554	Washer
702	Return pipe
704	Cooling water pipe
802	Block motor
819	Motor shaft
900 ¹⁾	Screw
903.1	Screw plug
903.4	Drain plug
920	Nut
940	Key



¹⁾ Special design/accessories

Frequency converter

Frequency converters are used for the electronic regulation of motor speed which saves a significant quantity of energy. They also extend the service life of the system and reduce repair and maintenance costs.

Their main advantage is that through pump speed regulation the duty point can be adapted to the system requirements (e.g. night-time energy reduction in swimming pools), which compared to previous technical solutions and possibilities brings significant improvements for saving energy.

Frequency converters are used for installation in wall or switch cabinets (all ratings).



Seal-Guard-System

The Seal-Guard-System prevents dry running of the mechanical seal by means of a reserve medium supply.

As soon as the primary mechanical seal in a pump is not in contact with the medium (a situation which subsequently would result in dry running), the reserve medium supply compensates for this insufficient lubrication. The medium supply is introduced into the pump back wall and is sealed on the drive side against the motor by means of a further secondary mechanical seal. You can also see from this tank if the primary mechanical seal is leaking. This system is maintenance-free with the exception of a possible topping up of the reserve medium supply.

Through dry running protection for the primary mechanical seal by means of medium supply costs can be saved and therefore the life cycle costs lowered.



ETS X4

The electronic dry running protection system (ETS X4) prevents dry running of the mechanical seal by means of electronic monitoring. The air venting process is automated.

This allows a saving of replacement seals and their assembly, reduces standstill times considerably and therefore minimises the life cycle costs for the pump.

Please note that it is not possible to vent an entire system with the ETS.



Long-Life-Set

The Long-Life-Set consists of a grease gun with high-performance grease. By ensuring the relubrication of motor bearings, the service life of the bearings is noticeably increased and therefore the life cycle costs of the pump are significantly improved.



Analogue pressure display

The analogue pressure display is for indicating the pressure on the pressure side of the pump. This enables the operator to determine contamination of the filter strainer easily.



Digital pressure display

The digital pressure detector records the pressure on the pressure side of the pump. The value is displayed directly on the optional digital display.





HERBORNER
PUMPENTECHNIK

herborner. **D-C**

100% COATING = 0% CORROSION!

Technical data brochure
60 Hz



The coated, inline-block centrifugal pump with heat exchanger motor:
Flexible, innovative and powerful all at the same time.



Table of contents

Technical descriptions.....	3
Versions.....	8
1800 rpm	8
Characteristic curves 1800 rpm	9
DN 40.....	9
DN 50.....	10
DN 65.....	12
DN 80.....	15
DN 100.....	17
DN 125.....	18
DN 200.....	19
Dimensions • Weights	20
Technical data.....	22
Exploded view.....	23
Accessories	24



Use

The **herborner.D-C** with its 100% coating is particularly suited for use in swimming complexes, leisure and adventure pools, theme parks, industrial plants and ship technology. The inline version of the block pump is intended for direct installation into a pipeline. The coating is approved for use in swimming pools and for drinking water, making it the right choice for just about any application.

The coating thickness of up to 1000 µm ensures an extremely smooth surface. This increases hydraulic efficiency by up to 10%, saving energy for years.

Coating

Corrosion protection and protection against aggressive media thanks to the 100% coating of all relevant parts at risk from corrosion and that come in contact with the medium. Corrosion damage to the pump or system components is thereby prevented.

Impeller protector

Special impeller protector made of highly durable plastic protects the impeller from seizing up due to corrosion (after standstill periods) and ensures that the pump runs quietly.

The version with a particularly small gap achieves high efficiency.

Mechanical seal protector

The seat of the mechanical seal is fully protected against corrosion. This prevents corrosion cavities forming in the intermediate casing in the area of the O-ring seat of the mechanical seal. Improving corrosion stability leads to reduced life cycle costs.

X-Lock-System

With the X-Lock-System, it is possible to achieve 100% coating of the internal threads in cast parts in order to avoid corrosion in the threads.

Service and maintenance

Only stainless steel screwed connections are used, allowing trouble-free maintenance of components for years.

Seal-Guard-System (optional)

Normally, a mechanical seal is defective after a few seconds of dry running. The innovative and maintenance-free Seal-Guard-System has a reserve medium supply for such cases that compensates for insufficient lubrication for a much longer period of time. Thus, the primary mechanical seal is effectively protected against dry running.

Impellers

Dynamically balanced impellers ensure vibration-free running and contribute significantly to the long lifetime of the pump. By correcting the diameter, all impellers can reach any duty point within the set of performance curves.



Closed multi vane impellers for clean to slightly soiled pumped media are used.

Construction

The robust and stable type of construction was consistently continued. The dynamic process design for easy disassembling of the interchangeable module is also an integral element. Variable flange positions in intervals of 45° also offer optimal design flexibility.

Venting

Simple ventilation of the pump in vertical installation by means of a ball valve to remove air accumulation and avoid dry running of the mechanical seal.

Efficiency

An extended lifetime is achieved through liberally dimensioned shafts and bearings. All motors are also equipped with a re-lubrication unit.

These technological improvements reduce the life cycle costs of the pump significantly compared to standard motors.

Motor shaft

The rigid motor shaft made from high-alloy stainless steel ensures minimal deflection. In this way, seal leaks can be minimised and the service life of the motor shaft increased.

Shaft sealing

A maintenance-free mechanical seal is used for shaft sealing. It is independent of the direction of rotation and made from wear-resistant silicon carbide (SiC).

For the versions with the Seal-Guard-System, a mechanical seal made from wear-resistant silicon carbide (SiC) is used for sealing on the pump side and a mechanical seal in the form of cast carbon/chromium molybdenum on the drive side. The intermediate casing is filled with NSF H1 lubricating oil to lubricate and cool the mechanical seals. This oil even enables a short-term dry run.

All motors are equipped with a special seal for splash-proofing on the pump side.

By-pass channel

The mechanical seal is flushed optimally by the pumped medium through this channel. This gives the sliding surfaces the required lubricating and cooling medium thereby, extending the lifetime of the mechanical seal.

Installation

The pumps can be integrated into a piping system both horizontally and vertically with "Motor to the top".



Horizontal installation of the pump



Vertical installation of the pump

Optionally, a pump support for simple ground attachment can be included in delivery.



Vertical installation of the pump with pump support.

Output range

Speed	Q _{max} [m³/h]	H _{max} [m]
1800 rpm	630	49

Noise

Noise emission is determined by complex influencing factors such as size, materials, operating and installation conditions. As early as the development stage, hydraulic measures and solid construction are used to reduce noise emission. The maximum sound pressure level is generally determined by air, magnetic and bearing noise from the drive motors. Noise levels are below the permissible limit curves specified for electrical motors as defined by DIN EN 60034-9. Noise emission during operation close to Q_{optimal} (optimal efficiency) is minimal.

Motor

A medium-cooled heat exchanger motor is used. This returns a large proportion of the motor's waste heat back to the medium via an integrated cooling system through which the medium is guided.

Design	IM B5
Protection type	IP55
Speed	1800 rpm
Frequency	60 Hz
Connection ≤ 2.2 kW	460 V
Connection ≥ 3.0 kW	460 V
Insulation class EN 60034-1	F (155 °C)

The motors are fitted with a PTC thermistor as standard.

The motor is optionally available with an external frequency converter. The use of a frequency converter is recommended, but not compulsory.

Frequency regulation of pumps is available and depends upon the working conditions.

- from 30 to 60 Hz (460 V)

General data

- Design temperature +40°C
- Explosion-proof version from - 5 to + 40 °C
- Ambient temperature range from -5 to +40 °C
- Pumped medium free of H₂S, up to 1000 mg/l of chloride ions
- Certificate of performance according to DIN EN ISO 9906, Class 2
- Density of the pumped medium up to max. 1050 kg/m³
- Viscosity of the pumped medium up to max. 1.75 mm²/s

In case of deviating application conditions, the output is corrected in accordance with customer-specific requirements.

Special configurations

- Different voltage and/or mains frequency
- Different insulation class
- Heightened ambient temperature
- Higher protection type
- Enhanced tropical and moisture protection
- Special materials
- Special paint finish for all uncoated components
- Asynchronous motors with efficiency class IE2 or IE3 (**herborner.D**)
- Permanent magnet motors with maximum levels of efficiency of up to IE4 (**herborner.D-PM**)
- Customer-specific solutions

Model designation

D040-220A-0184C-W2B-L-EX

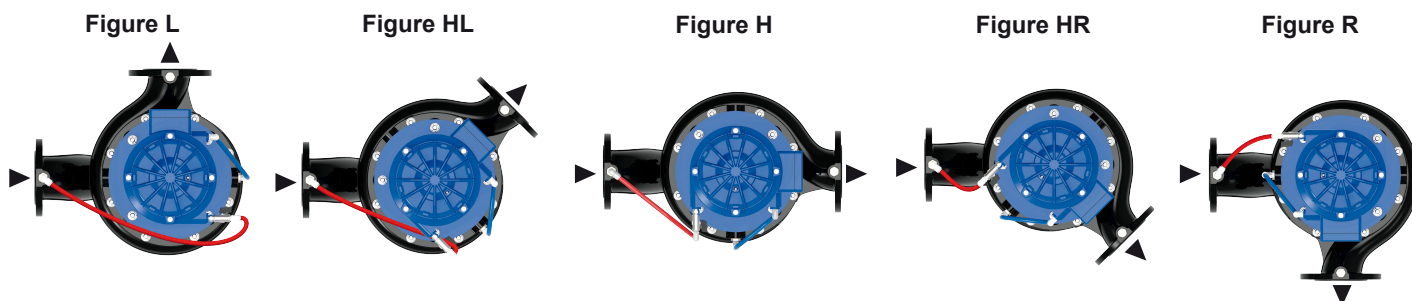
1 2 3 4 5 6 7 8 9 10

Number	Designation	Type code marking	Meaning
1	Design	D	herborner.D
2	Nominal diameter of pressure flange	032	DN 32
		040	DN 40
		050	DN 50
		065	DN 65
		080	DN 80
		100	DN 100
		125	DN 125
		150	DN 150
		200	DN 200
3	Construction dimensions	220	Centering diameter
4	Version	A-Z	Design version
5	Motor rating	018	1.8 kW
		026	2.6 kW
		036	3.6 kW
		048	4.8 kW
		066	6.6 kW
		090	9 kW
		132	13.2 kW
		180	18 kW
		222	22.2 kW
		264	26.4 kW
		360	36 kW
6	Speed	4	1800 rpm
7	Motor model	C	Heat exchanger motor
8	Materials	W2B	See materials
		W30	See materials
9	Flange position	L	Left
		RrL	Centred between the rear and left
		Rr	Rear
		RrR	Centred between the rear and right
		R	Right
10	Permitted use		Standard
		EX	Explosion protection

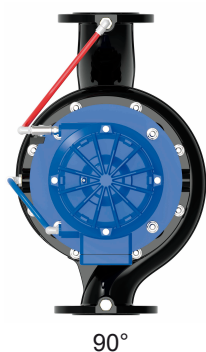
Materials

¹⁾	Individual components	W2B ²⁾	W30 ²⁾
025	Impeller protector	POM/FKM	POM
101	Pump casing	EN-GJL-250 ³⁾ (EN-JL1040)	CuSn10 (CC480K)
113	Intermediate casing	EN-GJL-250 ³⁾ (EN-JL1040)	CuSn10 (CC480K)
161	Casing cover	EN-GJL-250 ³⁾ (EN-JL1040)	CuSn10 (CC480K)
181	Pump support	EN-GJL-250 (EN-JL1040)	EN-GJL-250 (EN-JL1040)
230	Impeller	CuAl10Fe5Ni5-C (CC333G)	CuAl10Fe5Ni5-C (CC333G)
433.1	Mechanical seal	SiC/SiC/FKM	SiC/SiC/FKM
433.2	Mechanical seal	Carbon/CrMo cast/NBR	Carbon/CrMo cast/NBR
471	Seal cover	EN-GJL-250 (EN-JL1040)	EN-GJL-250 (EN-JL1040)
819	Motor shaft	X6CrNiMoTi17-12-2 (1.4571)	X6CrNiMoTi17-12-2 (1.4571)
	Mechanical seal protector	CuSn12-C (CC483K)	CuSn12-C (CC483K)

Flange position ^{4) 5)}



Terminal box alignment



¹⁾ See exploded view (page 23)

²⁾ Other material pairings upon request

³⁾ With thick coating

⁴⁾ The position of the terminal box may vary for versions with a frequency converter for direct mounting.

⁵⁾ See Versions (page 8)

1800 rpm

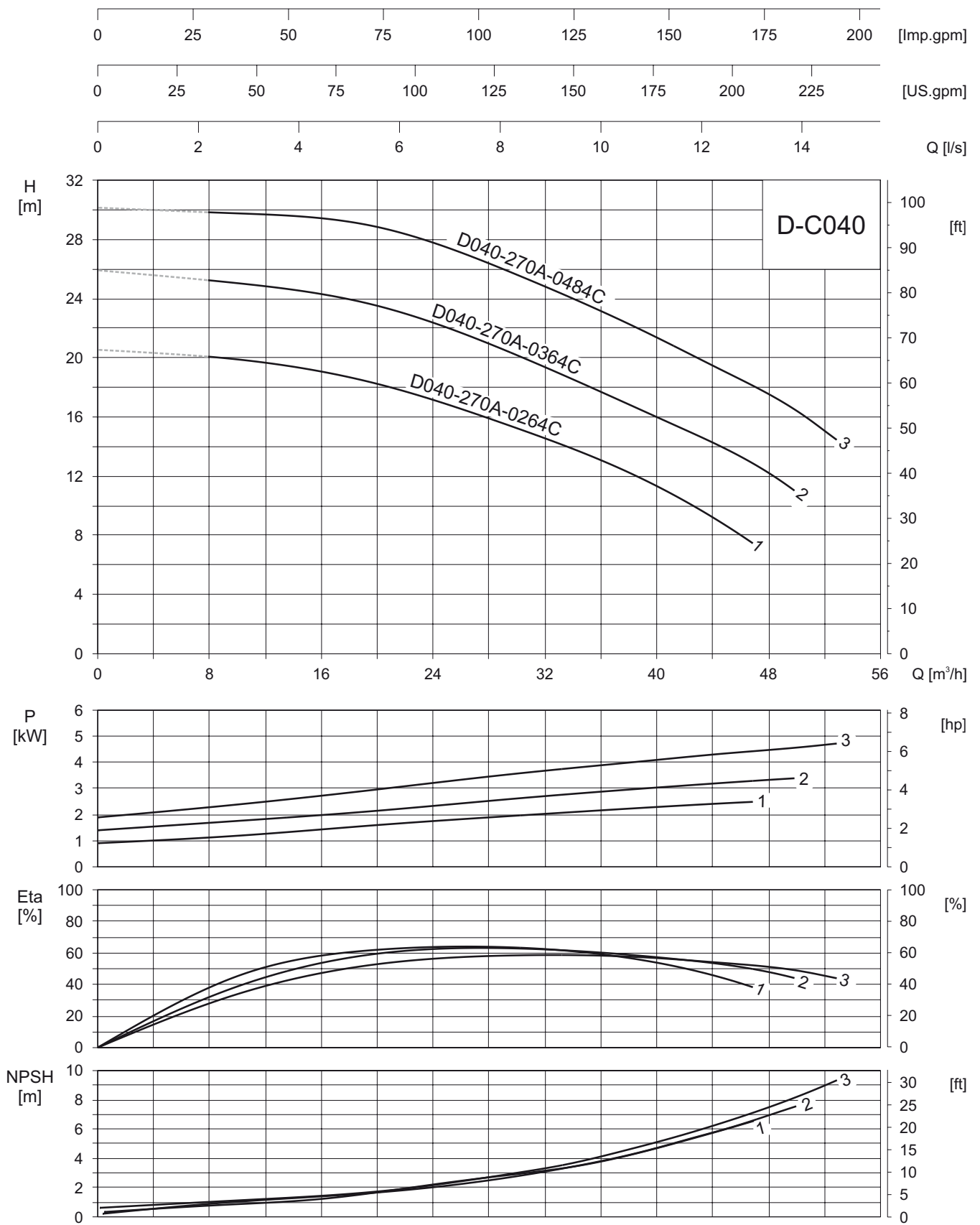
Model	P ₂ [kW]			Flange position					Accessories		
		without pump support	with pump support	L	RrL	Rr	RrR	R	Seal- Guard- System	frequency converter (direct in- stallation)	frequency converter (wall instal- lation)
											
D040-270A	2,6	●	○	○	○	●	○	○	○	-	○
D040-270A	3,6	●	○	○	○	●	○	○	○	-	○
D040-270A	4,8	●	○	○	○	●	○	○	○	-	○
D050-190A	1,8	●	○	○	○	●	○	○	○	-	○
D050-190A	2,6	●	○	○	○	●	○	○	○	-	○
D050-190A	3,6	●	○	○	○	●	○	○	○	-	○
D050-240A	1,8	●	○	○	○	●	○	○	○	-	○
D050-240A	2,6	●	○	○	○	●	○	○	○	-	○
D050-240A	3,6	●	○	○	○	●	○	○	○	-	○
D065-200A	1,8	●	○	○	○	●	○	○	○	-	○
D065-200A	2,6	●	○	○	○	●	○	○	○	-	○
D065-220A	2,6	●	○	○	○	●	○	○	○	-	○
D065-220A	3,6	●	○	○	○	●	○	○	○	-	○
D065-220A	4,8	●	○	○	○	●	○	○	○	-	○
D065-240A	3,6	●	○	○	○	●	○	○	○	-	○
D065-240A	4,8	●	○	○	○	●	○	○	○	-	○
D065-270A	4,8	●	○	○	○	●	○	○	○	-	○
D065-270A	6,6	●	○	○	○	●	○	○	○	-	○
D080-170A	1,8	●	○	○	○	●	○	○	○	-	○
D080-170A	2,6	●	○	○	○	●	○	○	○	-	○
D080-255A	3,6	●	○	○	○	●	○	○	○	-	○
D080-255A	4,8	●	○	○	○	●	○	○	○	-	○
D080-255A	6,6	●	○	○	○	●	○	○	○	-	○
D080-330A	13,2	●	○	○	○	●	○	○	○	-	○
D080-330A	18	●	○	○	○	●	○	○	○	-	○
D080-330A	22,2	●	○	○	○	●	○	○	○	-	○
D080-330A	26,4	●	○	○	○	●	○	○	○	-	○
D100-330A	22,2	●	○	○	○	●	○	○	○	-	○
D100-330A	26,4	●	○	○	○	●	○	○	○	-	○
D125-270A	6,6	●	○	○	○	●	○	○	○	-	○
D125-270A	9	●	○	○	○	●	○	○	○	-	○
D125-270A	13,2	●	○	○	○	●	○	○	○	-	○
D125-270A	18	●	○	○	○	●	○	○	○	-	○
D200-350A	36	●	○	○	○	●	○	○	○	-	○

● Standard

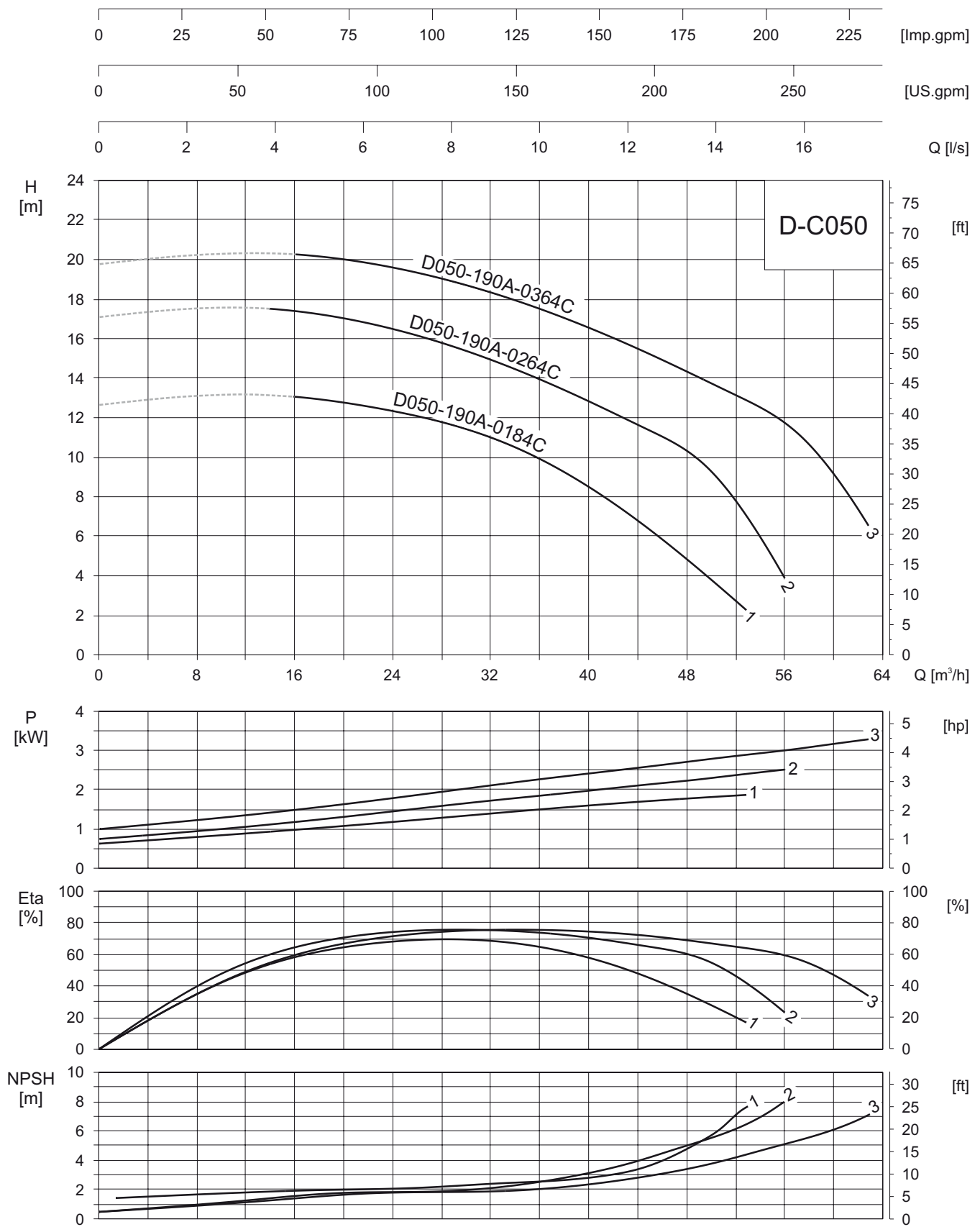
○ Option

- cannot be implemented

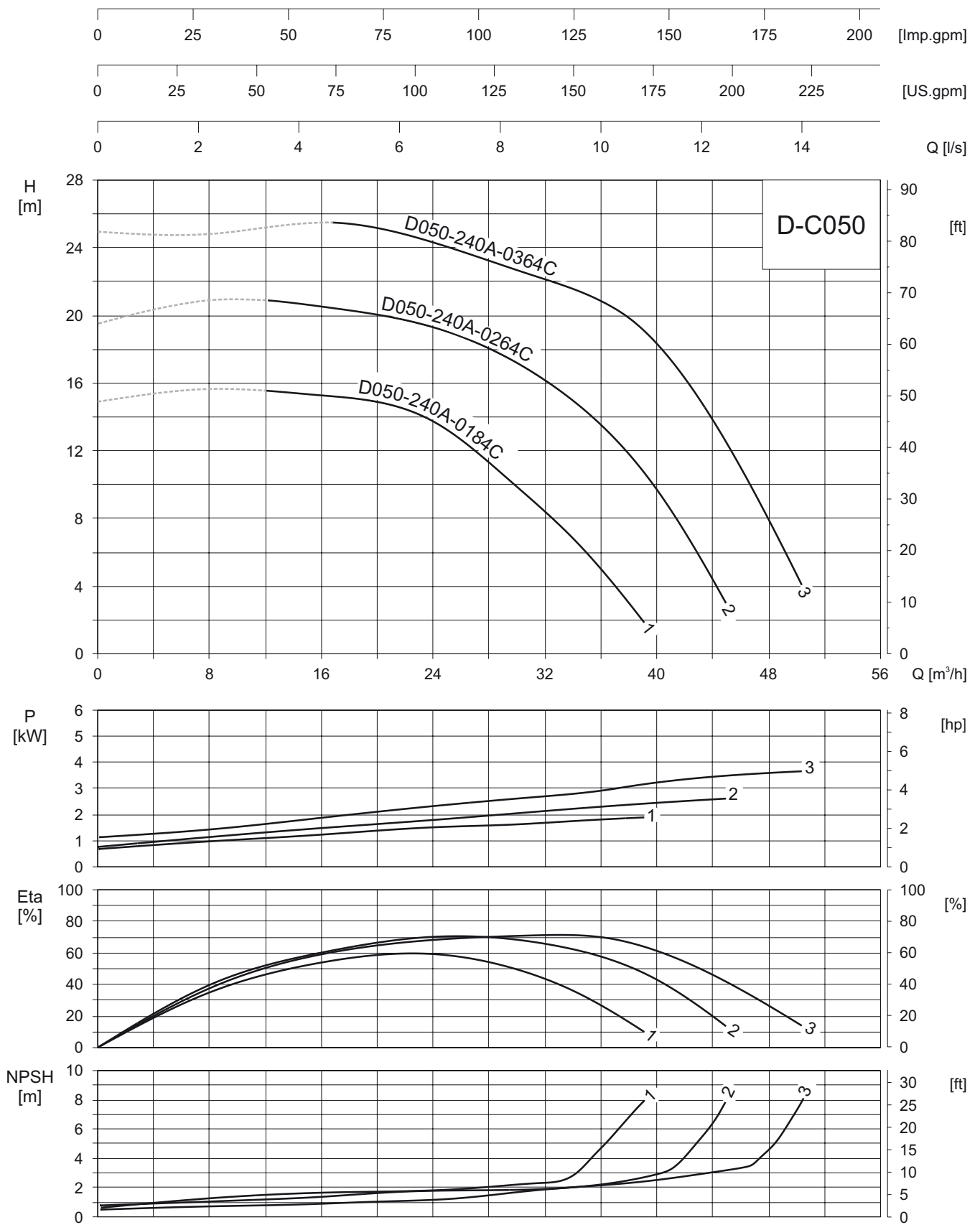
1800 rpm (460 V - 60 Hz)



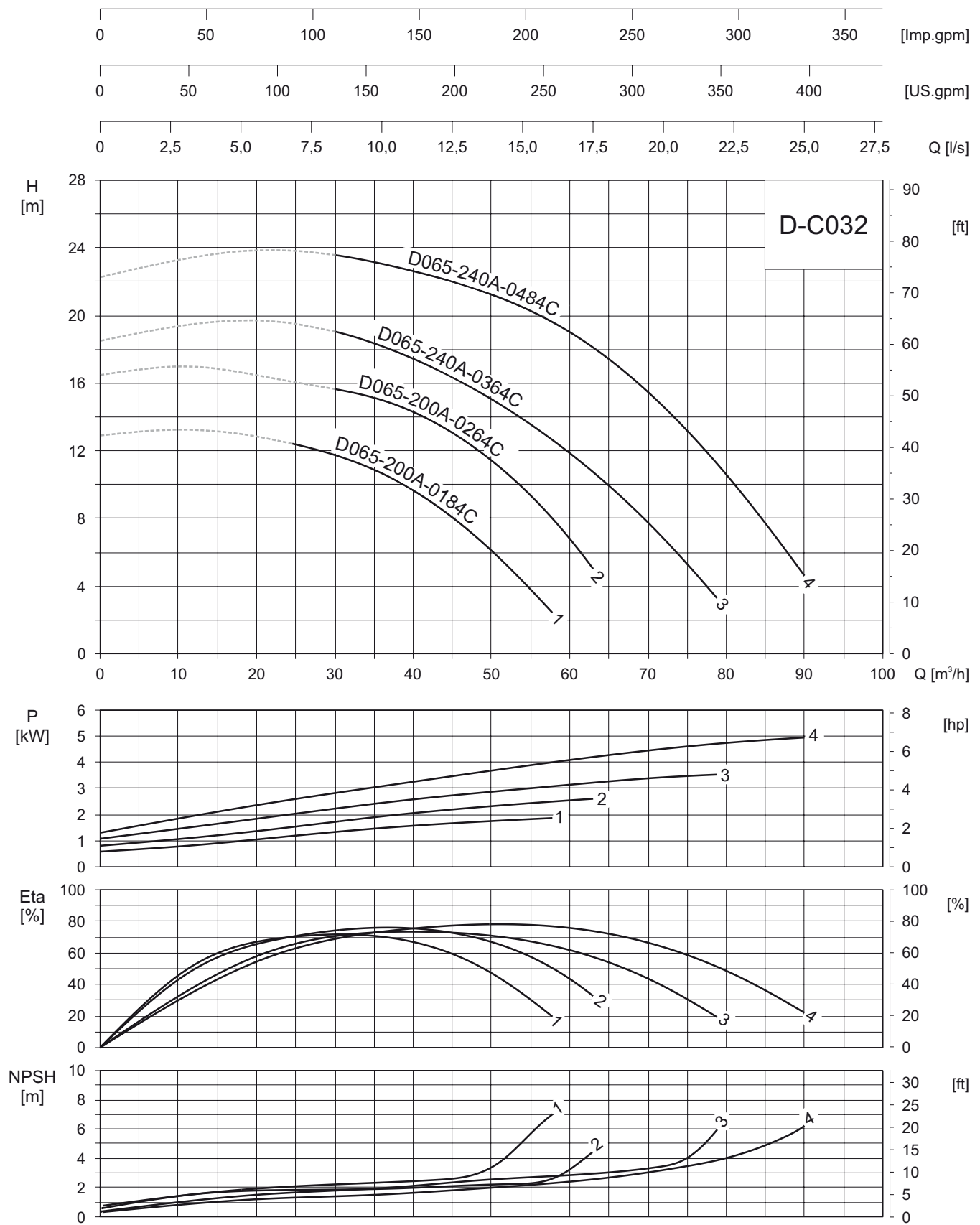
1800 rpm (460 V - 60 Hz)



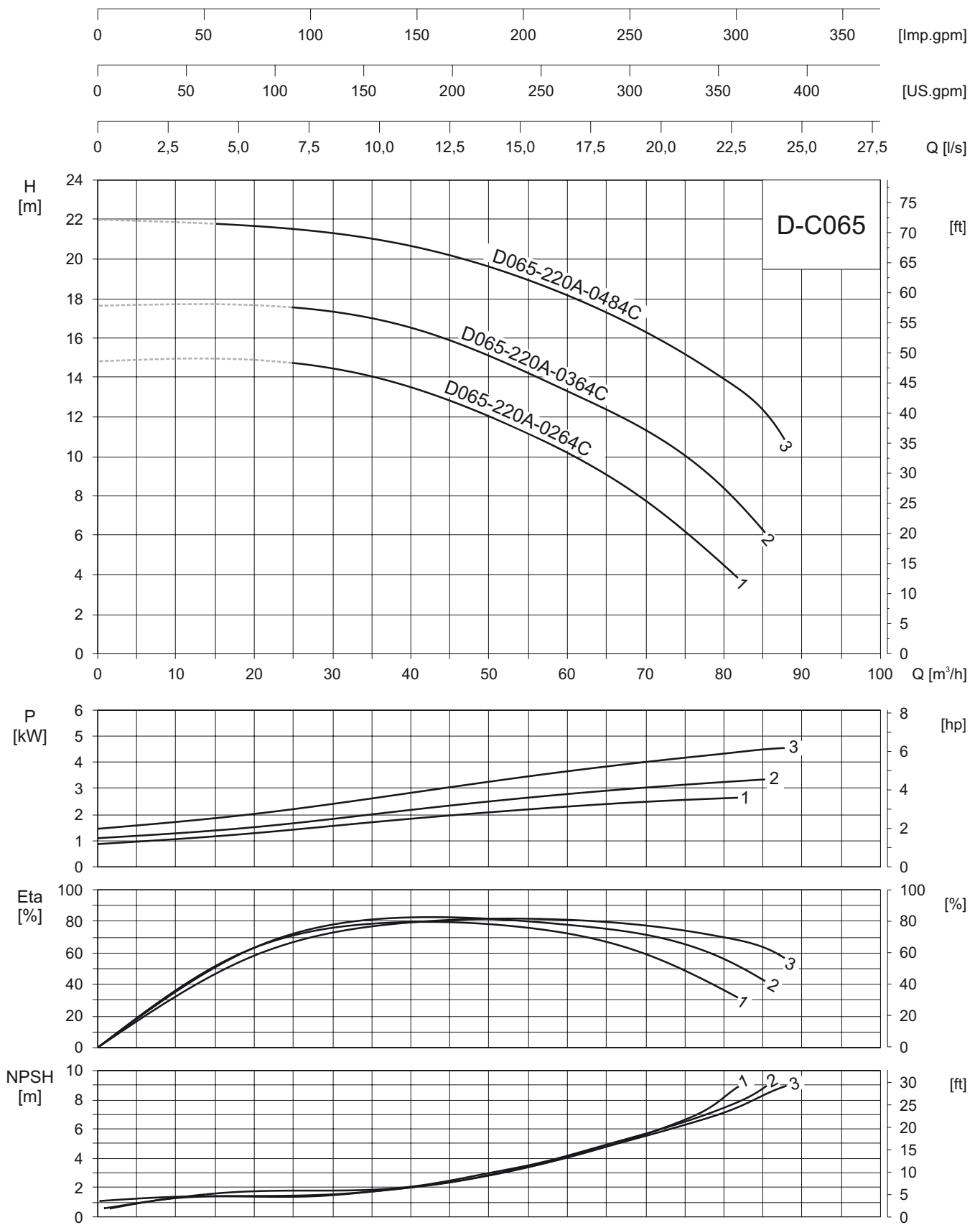
1800 min⁻¹ (460 V - 60 Hz)



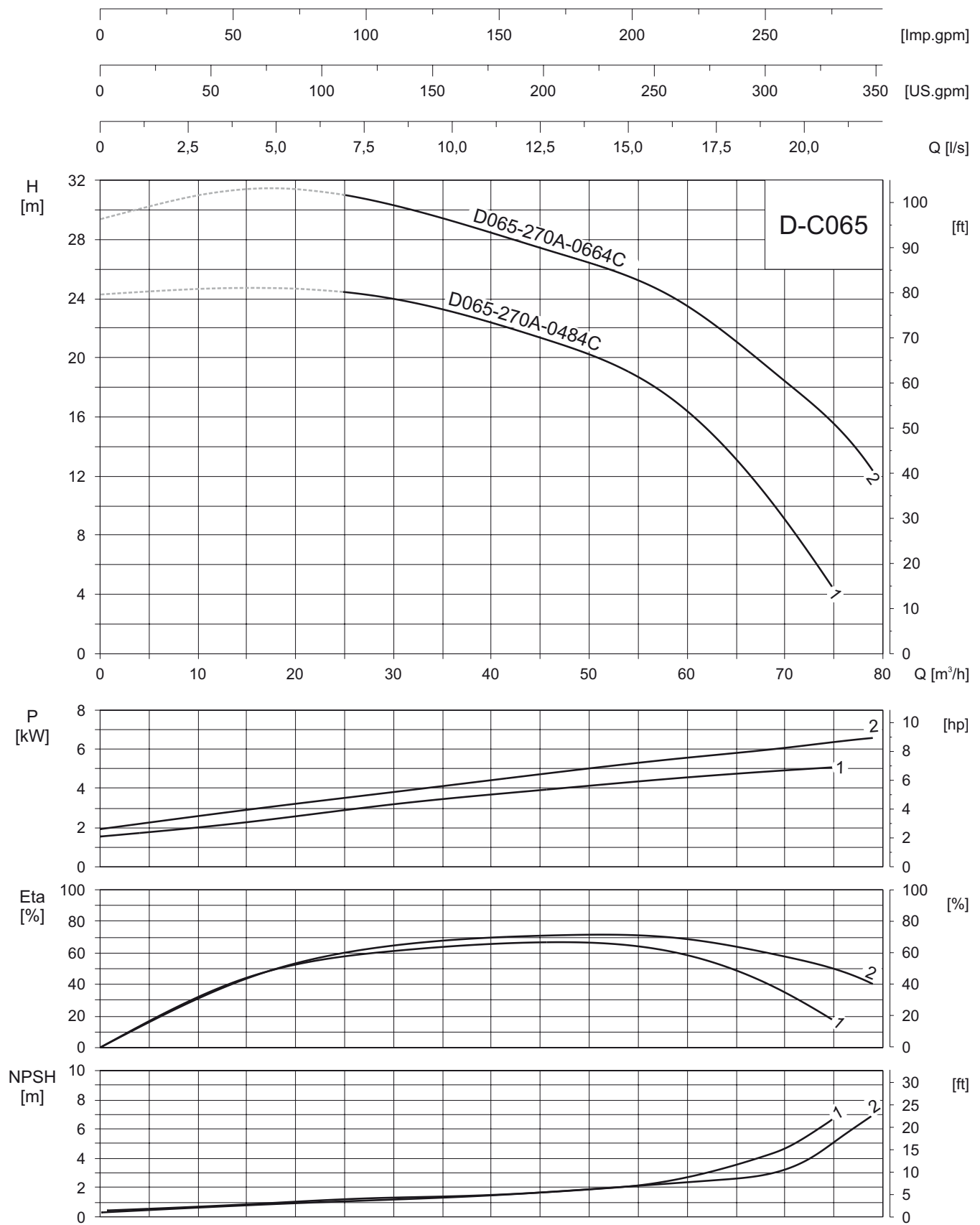
1800 rpm (460 V – 60 Hz)



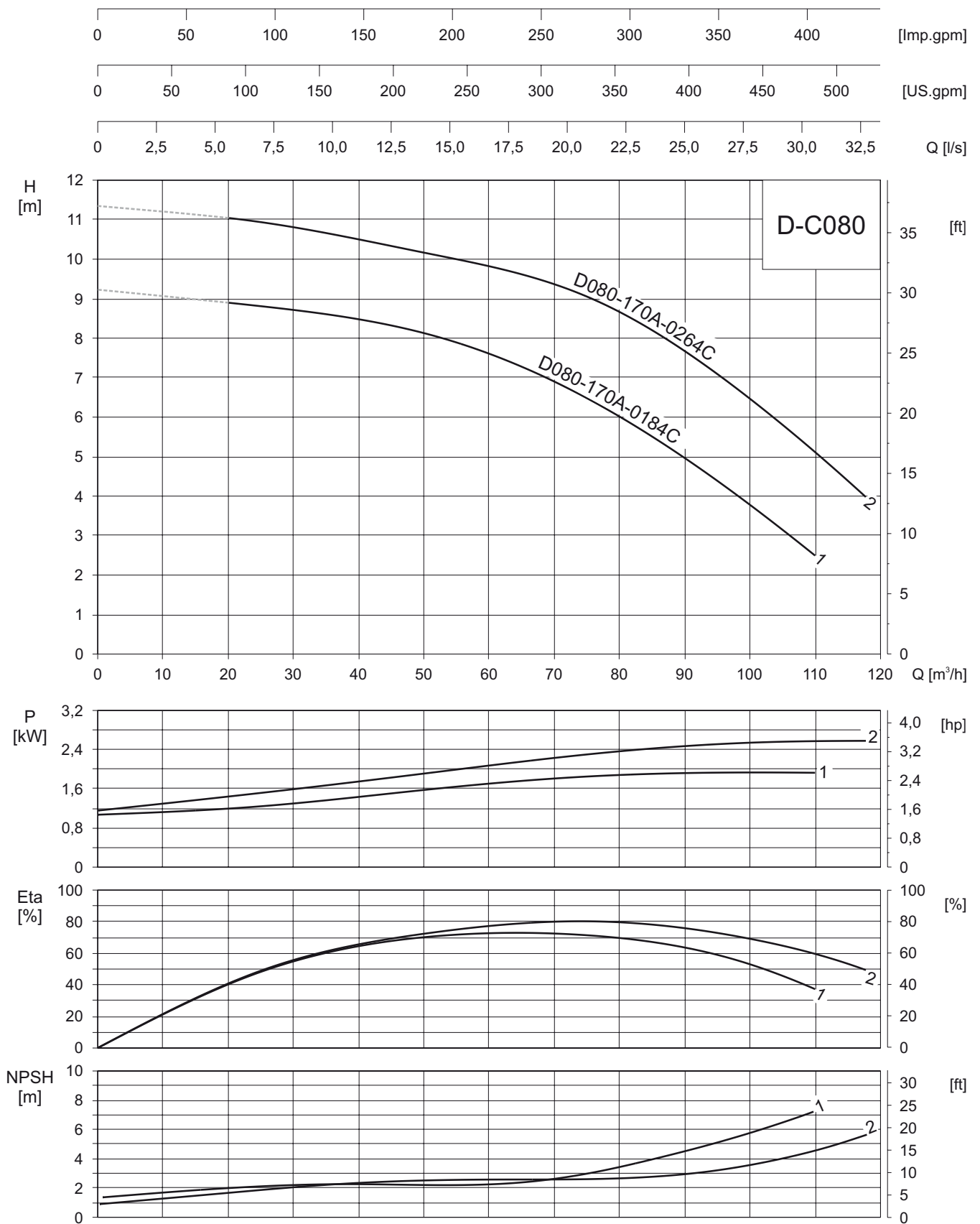
1800 rpm (460 V – 60 Hz)



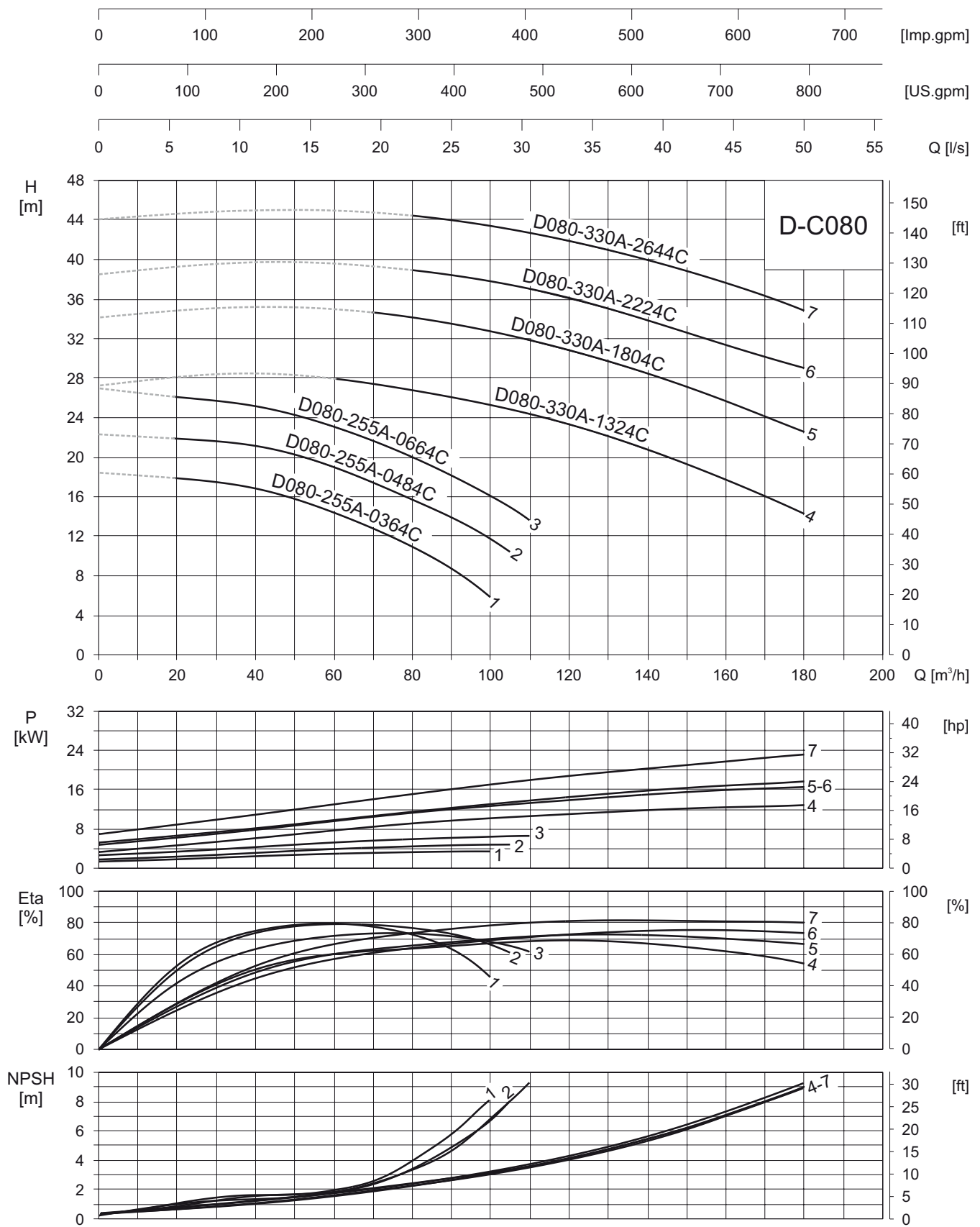
1800 rpm (460 V – 60 Hz)



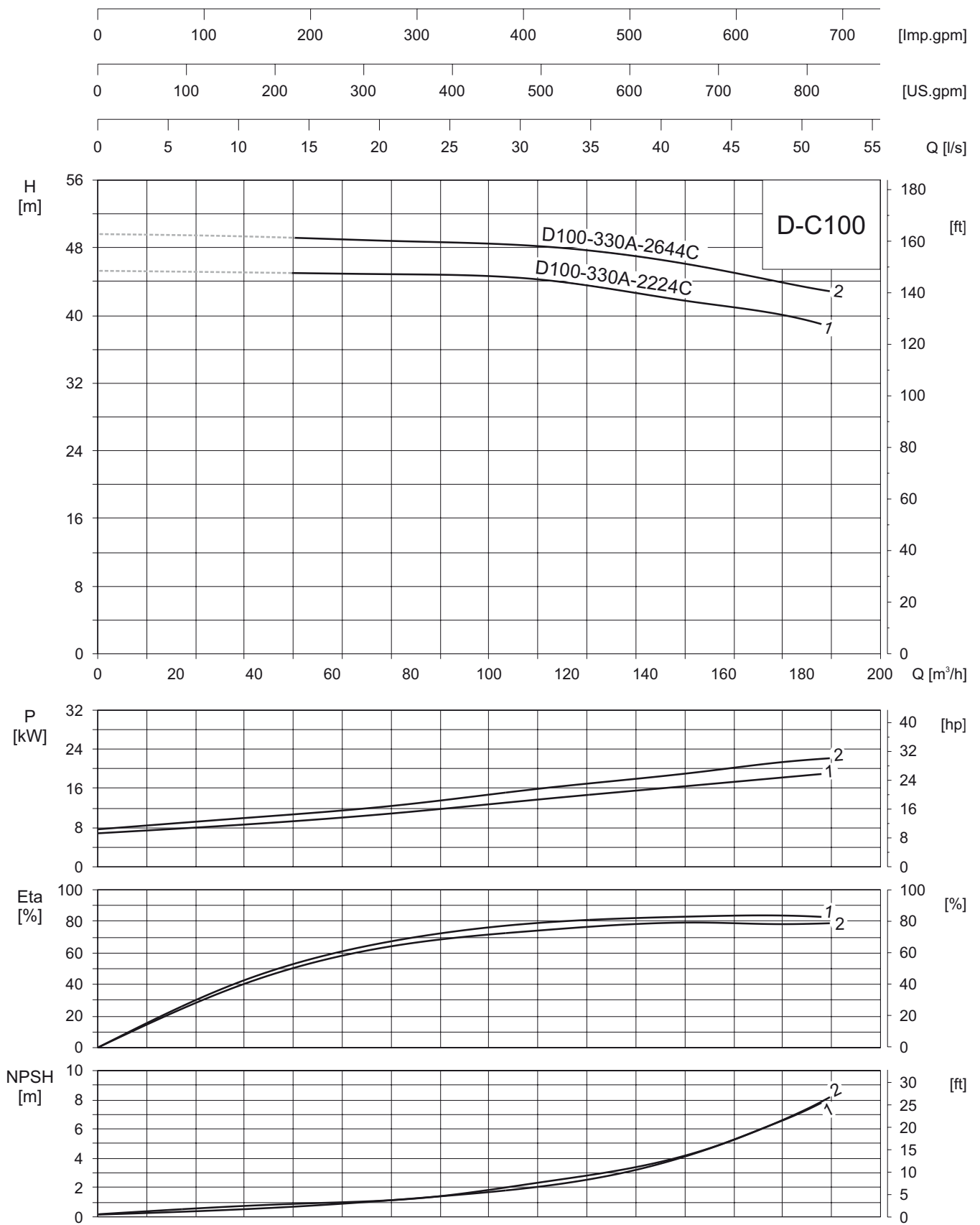
1800 rpm (460 V – 60 Hz)



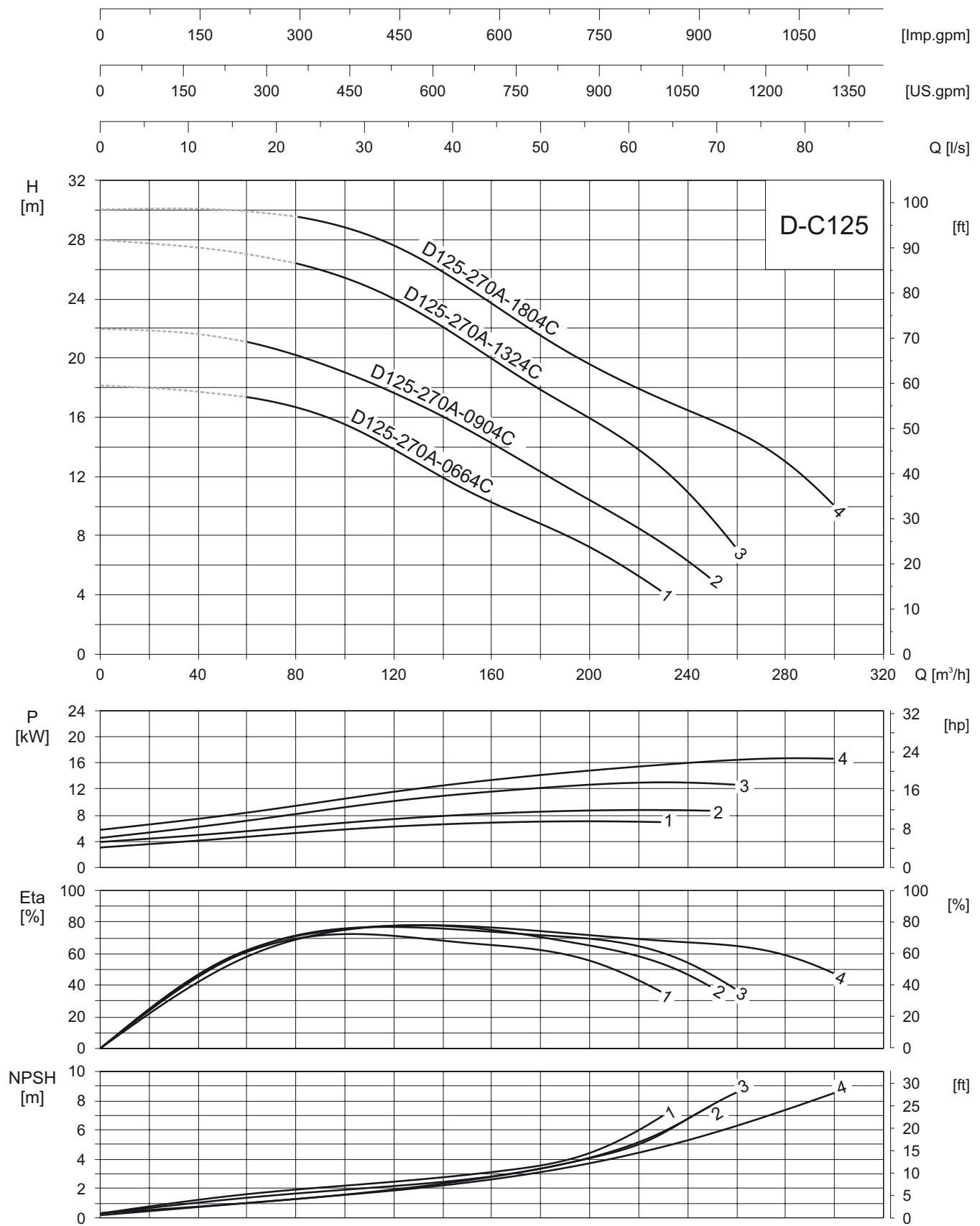
1800 rpm (460 V – 60 Hz)



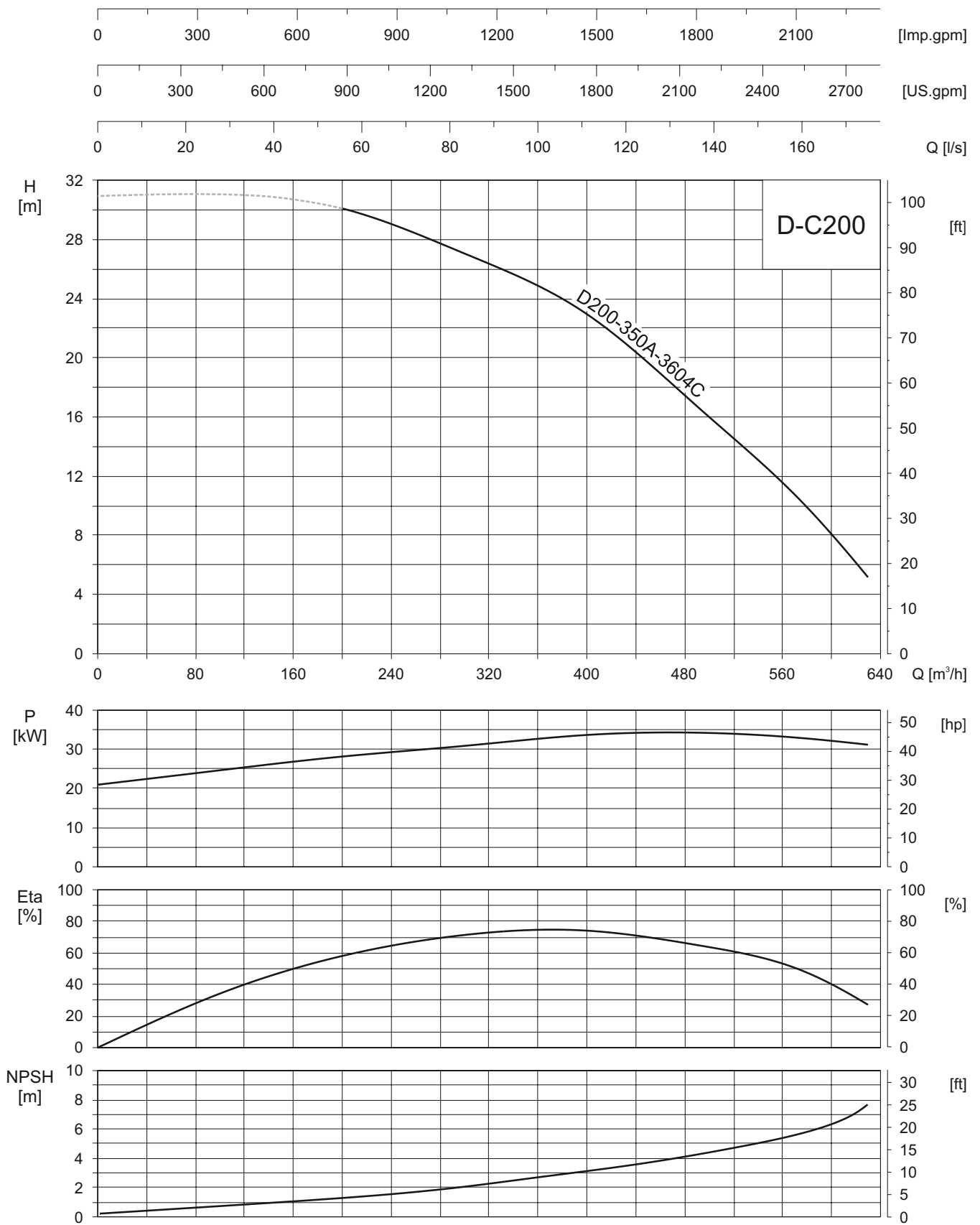
1800 rpm (460 V – 60 Hz)

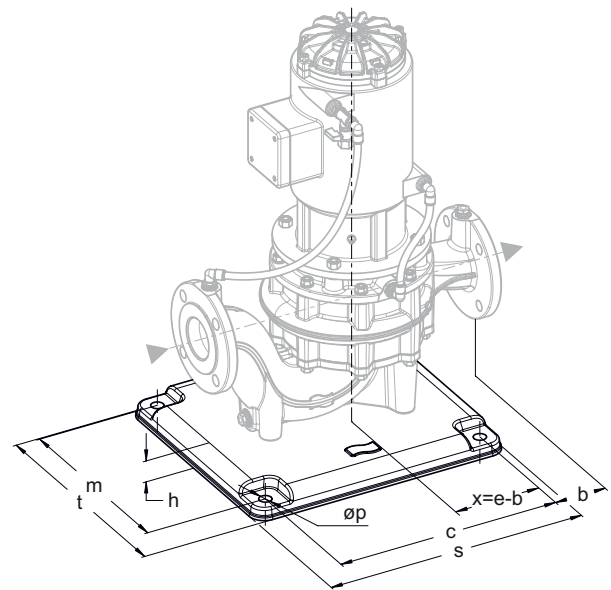
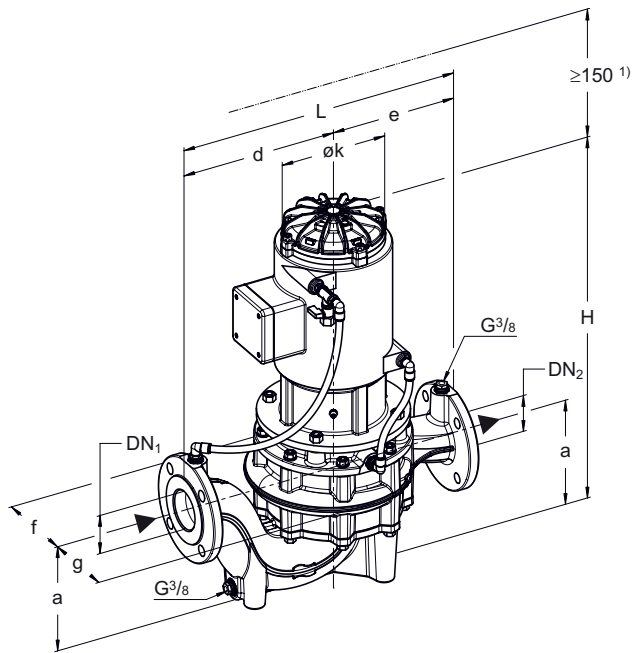


1800 rpm (460 V – 60 Hz)



1800 rpm (460 V – 60 Hz)





D-C, 60 Hz: 1800 rpm

Typ	P ₂ [kW] 50Hz	DN _{1/2}	H	L	a	b	c	d	e	f _{max}	g _{max}	h	Ø k	m	p	s	t	m ²⁾ [kg]	m ³⁾ [kg]
D040-270A	2,2	40	623	514	195	91	390	280	234	178	162	40	192	340	21	454	404	92	114
D040-270A	3	40	631	514	195	91	390	280	234	178	162	40	192	340	21	454	404	88	109
D040-270A	4	40	691	514	195	91	390	280	234	185	185	40	218	340	21	454	404	97	119
D050-190A	1,5	50	626	460	190	70	390	260	200	160	160	40	192	340	21	454	404	76	97
D050-190A	2,2	50	624	460	190	70	390	260	200	160	160	40	192	340	21	454	404	74	95
D050-240A	1,5	50	614	500	185	77	390	280	220	170	160	40	192	340	21	454	404	80	102
D050-240A	2,2	50	614	500	185	77	390	280	220	170	160	40	192	340	21	454	404	80	102
D050-240A	3	50	624	500	185	77	390	280	220	170	160	40	192	340	21	454	404	77	99
D065-200A	1,5	65	646	505	193	90	390	280	225	160	160	40	192	340	21	454	404	87	109
D065-200A	2,2	65	634	505	193	90	390	280	225	160	160	40	192	340	21	454	404	86	108
D065-220A	2,2	65	609	533	170	165	300	283	250	170	160	35	192	250	17	354	304	82	93
D065-220A	3	65	609	533	170	165	300	283	250	170	160	35	192	250	17	354	304	77	88
D065-220A	4	65	669	533	170	165	300	283	250	185	185	35	218	250	17	354	304	86	98
D065-240A	3	65	646	560	205	105	390	310	250	184	160	40	192	340	21	454	404	88	110
D065-240A	4	65	706	560	205	105	390	310	250	185	185	40	218	340	21	454	404	98	119
D065-270A	4	65	706	560	205	95	390	320	240	185	185	40	218	340	21	454	404	104	126
D065-270A	5,5	65	706	560	205	95	390	320	240	185	185	40	218	340	21	454	404	105	127
D080-170A	1,5	80	656	545	220	95	390	320	225	165	160	40	192	340	21	454	404	83	105
D080-170A	2,2	80	669	545	220	95	390	320	225	165	160	40	192	340	21	454	404	83	105
D080-255A	3	80	665	630	230	135	390	350	280	190	167	40	192	340	21	454	404	110	131
D080-255A	4	80	725	630	230	135	390	350	280	190	185	40	218	340	21	454	404	119	141
D080-255A	5,5	80	725	630	230	135	390	350	280	190	185	40	218	340	21	454	404	110	131
D080-330A	11	80	848	715	265	90	630	400	315	248	214	45	258	530	25	704	604	213	264
D080-330A	15	80	848	715	265	90	630	400	315	248	214	45	258	530	25	704	604	213	264
D080-330A	18,5	80	1022	715	265	90	630	400	315	262	262	45	312	530	25	704	604	361	413
D080-330A	22	80	1022	715	265	90	630	400	315	262	262	45	312	530	25	704	604	374	425
D100-330A	18,5	100	978	705	245	205	390	390	315	262	262	40	312	340	21	454	404	334	356
D100-330A	22	100	978	705	245	205	390	390	315	262	262	40	312	340	21	454	404	347	369

¹⁾ When dismantling the motor, ensure there is sufficient room for the lifting device.

²⁾ Total weight of the pump

³⁾ Total weight of the pump with pump support

Flange connection dimensions according to DIN 2501 PN 10

Dimensions with frequency converter for direct installation on request.

Typ	P ₂ [kW] 50Hz	DN _{1/2}	H	L	a	b	c	d	e	f _{max}	g _{max}	h	Ø k	m	p	s	t	m ²⁾ [kg]	m ³⁾ [kg]
D125-270A	5,5	125	750	729	245	239	390	374	355	209	185	40	218	340	21	454	404	129	150
D125-270A	7,5	125	750	729	245	239	390	374	355	209	185	40	218	340	21	454	404	132	153
D125-270A	11	125	820	729	245	239	390	374	355	209	208	40	258	340	21	454	404	177	199
D125-270A	15	125	820	729	245	239	390	374	355	209	208	40	258	340	21	454	404	177	199
D200-350A	30	200	1107	958	352	205	630	558	400	333	263	45	312	530	25	704	604	461	512

¹⁾ When dismantling the motor, ensure there is sufficient room for the lifting device.

²⁾ Total weight of the pump

³⁾ Total weight of the pump with pump support

Flange connection dimensions according to DIN 2501 PN 10

Dimensions with frequency converter for direct installation on request.

60 Hz: 1800 rpm (460 V)

P_2 [kW]	I [A]	I_A/I_N	dB(A)
1.8	3.3	7.3	53
2.6	5.1	6.3	53
3.6	7.4	4.4	53
4.8	9.0	5.1	53
6.6	12.5	5.2	53
9.0	17.8	5.1	53
13.2	21.8	5.6	54
18.0	31.3	5.8	54
22.2	42.8	6.2	56
26.4	46.4	6.2	56
36.0	60.0	5.8	56

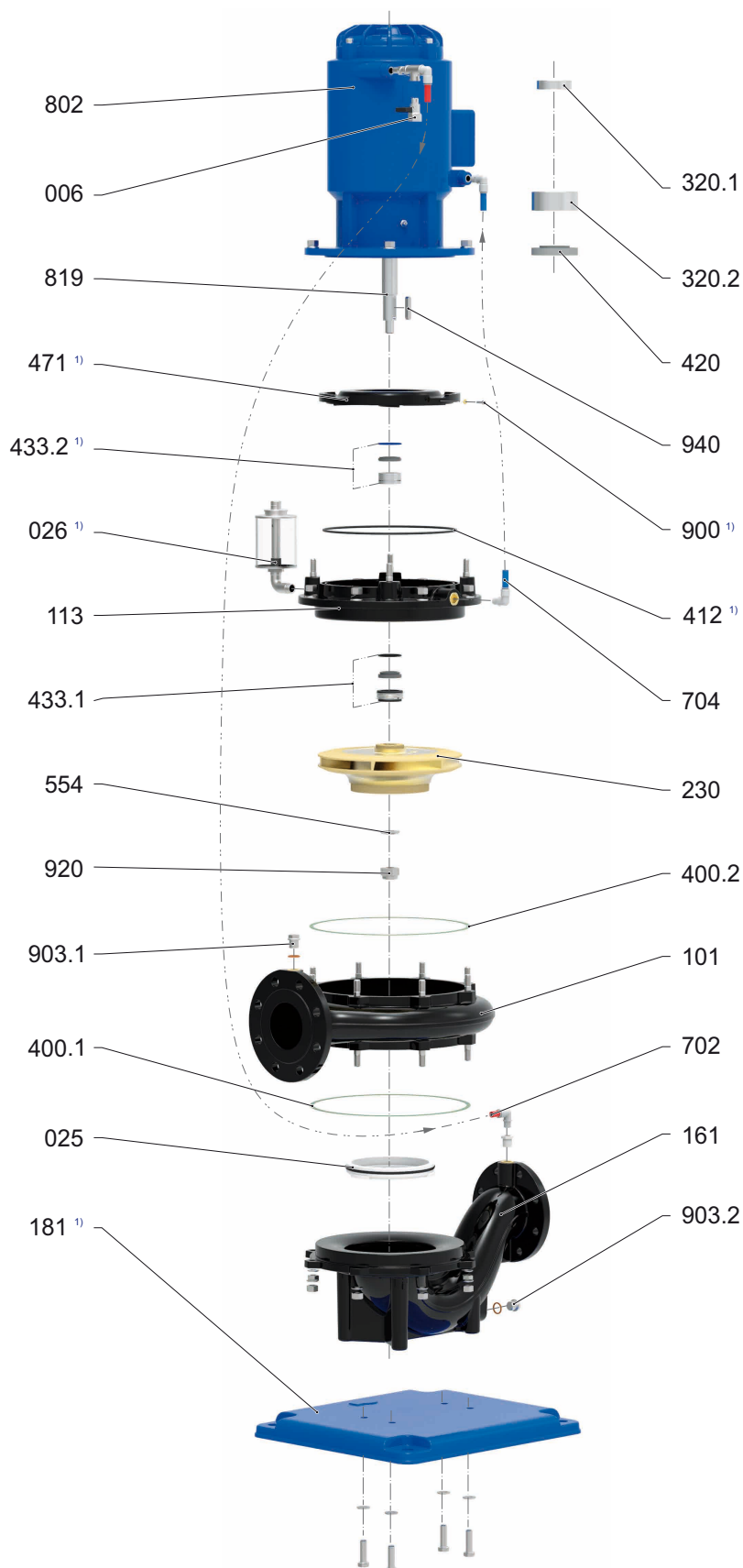
Legend: P_2 : Rated power

I: Rated current

 I_A/I_N : Locked-rotor current to rated currentdB(A): Sound pressure level of the entire pump. Tolerance ± 3 dB(A)

Individual components

006	Ball valve
025	Impeller protector
026 ¹⁾	Seal-Guard-System
101	Pump casing
113	Intermediate casing
161	Casing cover
181 ¹⁾	Pump support
230	Impeller
320.1	Anti-friction bearing (non-drive side)
320.2	Anti-friction bearing (drive side)
400.1	Gasket
400.2	Gasket
412 ¹⁾	O-ring
420	Shaft seal ring
433.1	Mechanical seal
433.2 ¹⁾	Mechanical seal
471 ¹⁾	Seal cover
554	Washer
702	Return pipe
704	Cooling water pipe
802	Block motor
819	Motor shaft
900 ¹⁾	Screw
903.1	Screw plug
903.4	Drain plug
920	Nut
940	Key



¹⁾ Special design/accessories

Frequency converter

Frequency converters are used for the electronic regulation of motor speed which saves a significant quantity of energy. They also extend the service life of the system and reduce repair and maintenance costs.

Their main advantage is that through pump speed regulation the duty point can be adapted to the system requirements (e.g. night-time energy reduction in swimming pools), which compared to previous technical solutions and possibilities brings significant improvements for saving energy.

Frequency converters are used for installation in wall or switch cabinets (all ratings).



Seal-Guard-System

The Seal-Guard-System prevents dry running of the mechanical seal by means of a reserve medium supply.

As soon as the primary mechanical seal in a pump is not in contact with the medium (a situation which subsequently would result in dry running), the reserve medium supply compensates for this insufficient lubrication. The medium supply is introduced into the pump back wall and is sealed on the drive side against the motor by means of a further secondary mechanical seal. You can also see from this tank if the primary mechanical seal is leaking. This system is maintenance-free with the exception of a possible topping up of the reserve medium supply.

Through dry running protection for the primary mechanical seal by means of medium supply costs can be saved and therefore the life cycle costs lowered.



ETS X4

The electronic dry running protection system (ETS X4) prevents dry running of the mechanical seal by means of electronic monitoring. The air venting process is automated.

This allows a saving of replacement seals and their assembly, reduces standstill times considerably and therefore minimises the life cycle costs for the pump.

Please note that it is not possible to vent an entire system with the ETS.



Long-Life-Set

The Long-Life-Set consists of a grease gun with high-performance grease. By ensuring the relubrication of motor bearings, the service life of the bearings is noticeably increased and therefore the life cycle costs of the pump are significantly improved.



Analogue pressure display

The analogue pressure display is for indicating the pressure on the pressure side of the pump. This enables the operator to determine contamination of the filter strainer easily.



Digital pressure display

The digital pressure detector records the pressure on the pressure side of the pump. The value is displayed directly on the optional digital display.



По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Россия (495)268-04-70

Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Киргизия (996)312-96-26-47

Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Казахстан (7172)727-132

Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93