

SPERONI®

NS

End-Suction
Centrifugal
Pump



SPERONI®

WATER PUMPS

water...is life!

General Data

Definition of Model	4
Min inlet pressure	4
Typical application	4
Construction	4
Specification	4
Curve notes	4
Features	4
Model performance drawing	5
Sectional drawing	6
Part list	6
Models	7

Technical Data

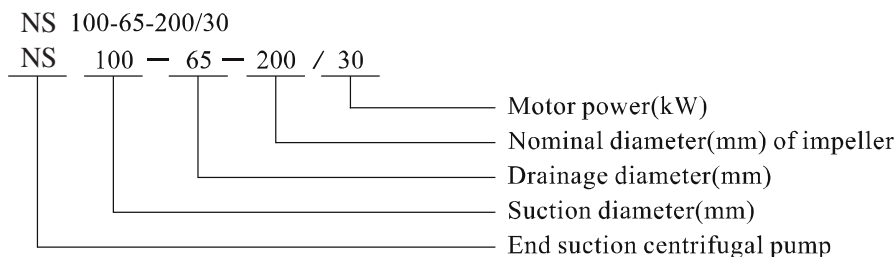
2 Pole

NS 50-32-160 / NS 50-32-200	11-12
NS 65-40-200 / NS 65-40-250	13-14
NS 65-40-315 / NS 65-50-160	15-16
NS 80-50-200 / NS 80-50-250	17-18
NS 80-50-315 / NS 80-65-160	19-20
NS 100-65-200 / NS 100-65-250	21-22
NS 100-65-315 / NS 100-80-160	23-24
NS 125-100-200 / NS 125-100-250	25-26
NS 125-100-315	27

4 Pole

NS 50-32-160	28
NS 50-32-200 / NS 65-40-200	29-30
NS 65-40-250 / NS 65-40-315	31-32
NS 65-50-160 / NS 80-50-200	33-34
NS 80-50-250 / NS 80-50-315	35-36
NS 80-65-160 / NS 100-65-200	37-38
NS 100-65-250 / NS 100-65-315	39-40
NS 100-80-160 / NS 125-80-400	41-42
NS 125-100-200 / NS 125-100-250	43-44
NS 125-100-315 / NS 125-100-400	45-46
NS 150-125-250 / NS 150-125-315	47-48
NS 150-125-400 / NS 200-150-315	49-50
NS 200-150-400	51
Pump dimensions	52
Pump dimensions table	53-54

Definition of Model



Min inlet pressure

Min inlet pressure depends on NPSH +0.5m safety margin + gasified pressure. It should be re-calculated the inlet pressure if one of the following happens.

- The liquid is more warm.
- The flow exceeds the nominate value.
- Suction distance is very long or inlet pipe is very long.
- System pressure is too little.
- Inlet pressure is low.

Typical application

- Clean, thin, non-corrosive, non-flammable or non-explosive liquid without grain or fiber.
- Water supply system
- Heat, air condition system
- Booster, constant pressure water supply
- Firefighting, splitting system
- Irrigating, farming
- Industry cooling, heater circulation system
- Industry transferring, drainage system

Construction

- Non-self-priming, single stage, single suction, horizontal, axial suction and radical discharge, pump body is fixed by base.
- Use bearing cradle, which can orientate bearing, prevent from radical vibration, improve the rigidity of rotary part.
- Compacted shaft, use deep groove grease lubricated roller bearing.
- Connect pump and motor with semi-flexible coupling.
- Use standard wearable mechanical seal.
- TEFC motor, size complies to IEC standard, installation type B3.
- The dimensions is conform to ISO 2858

Specification

- Flow: Max 520m³/h
- Head: Max 160m
- Working pressure: Max 16 bar
- Inlet pressure: Max 6bar
- Power: Max 160kW
- Liquid temperature: -15°C ~ 110°C
- Inlet and Outlet diameter: Inlet diameter: DN50~DN200
Outlet diameter: DN32~DN150

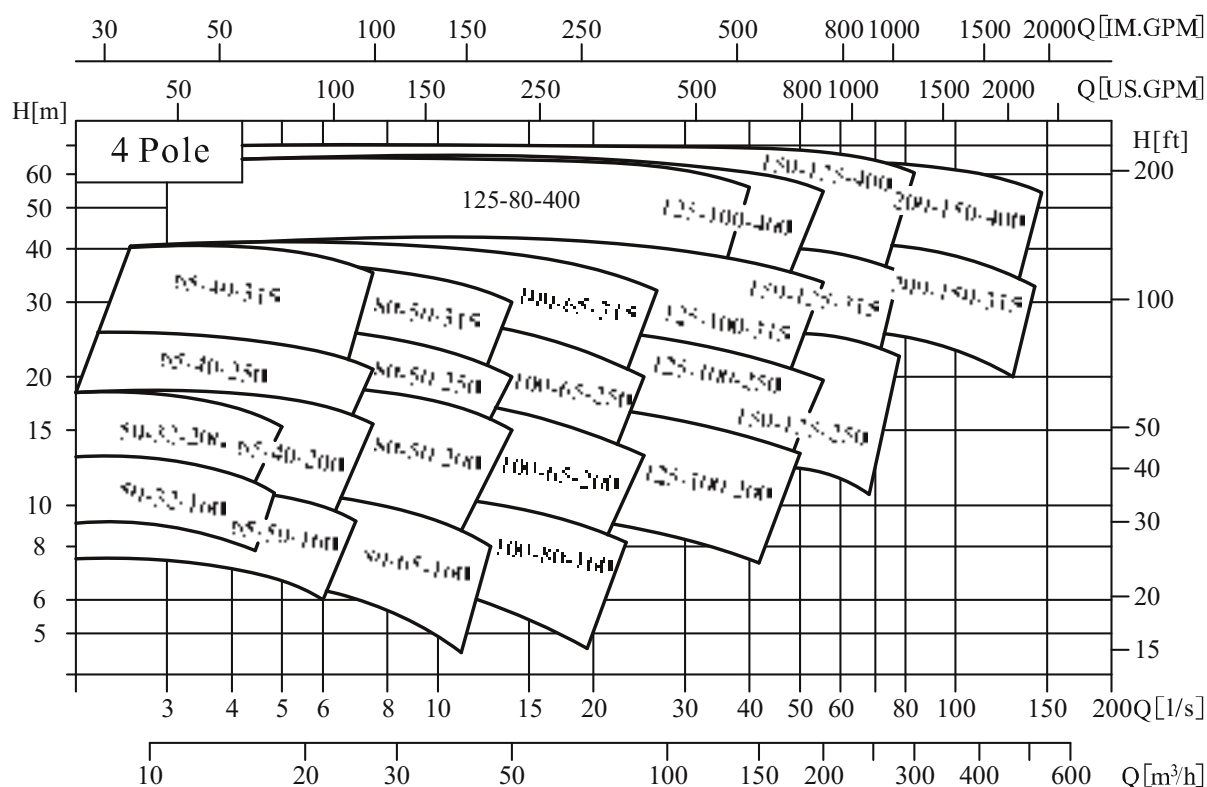
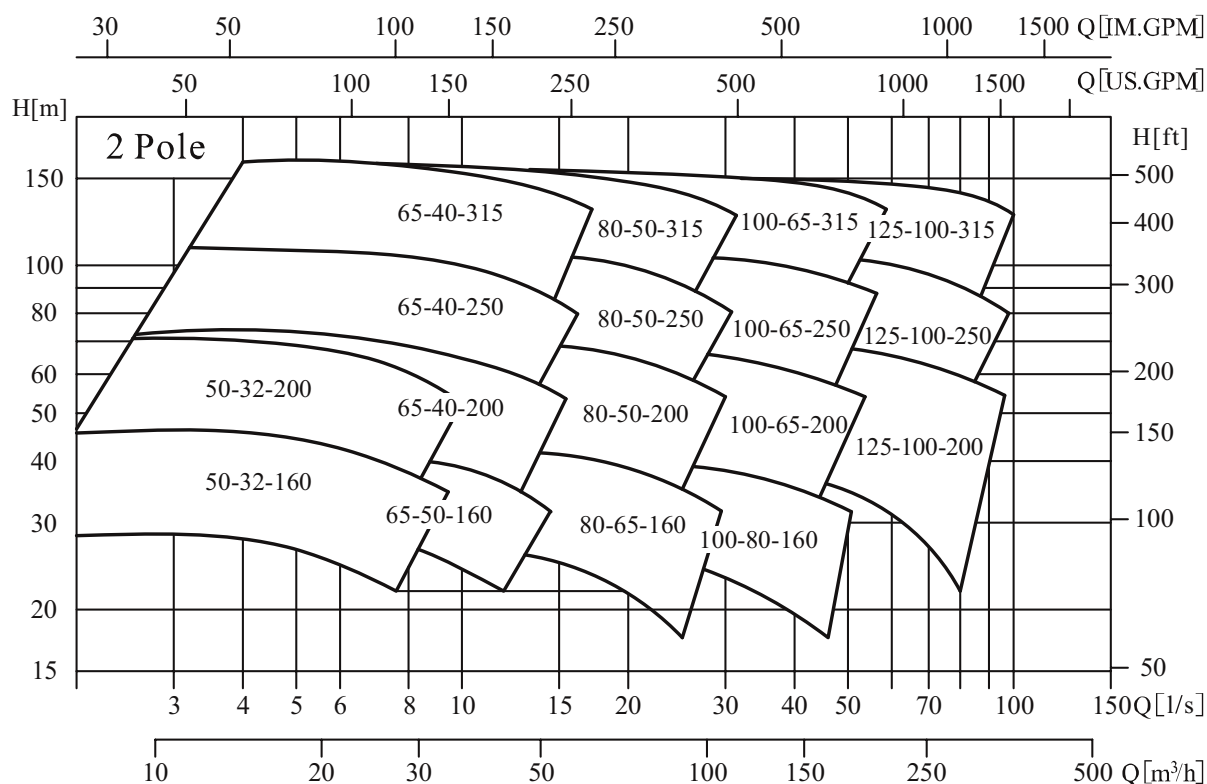
Curve conditions

- Curves tolerance is according to ISO9906, Annex A;
- All curves are based on the measured value of constant motor speed 2900rpm, 2950rpm, 1450rpm or 1480rpm.
- The measurements were made with airless water at temperature of 20°C. The curves apply to a kinematic viscosity of 1mm²/s(1 cst)

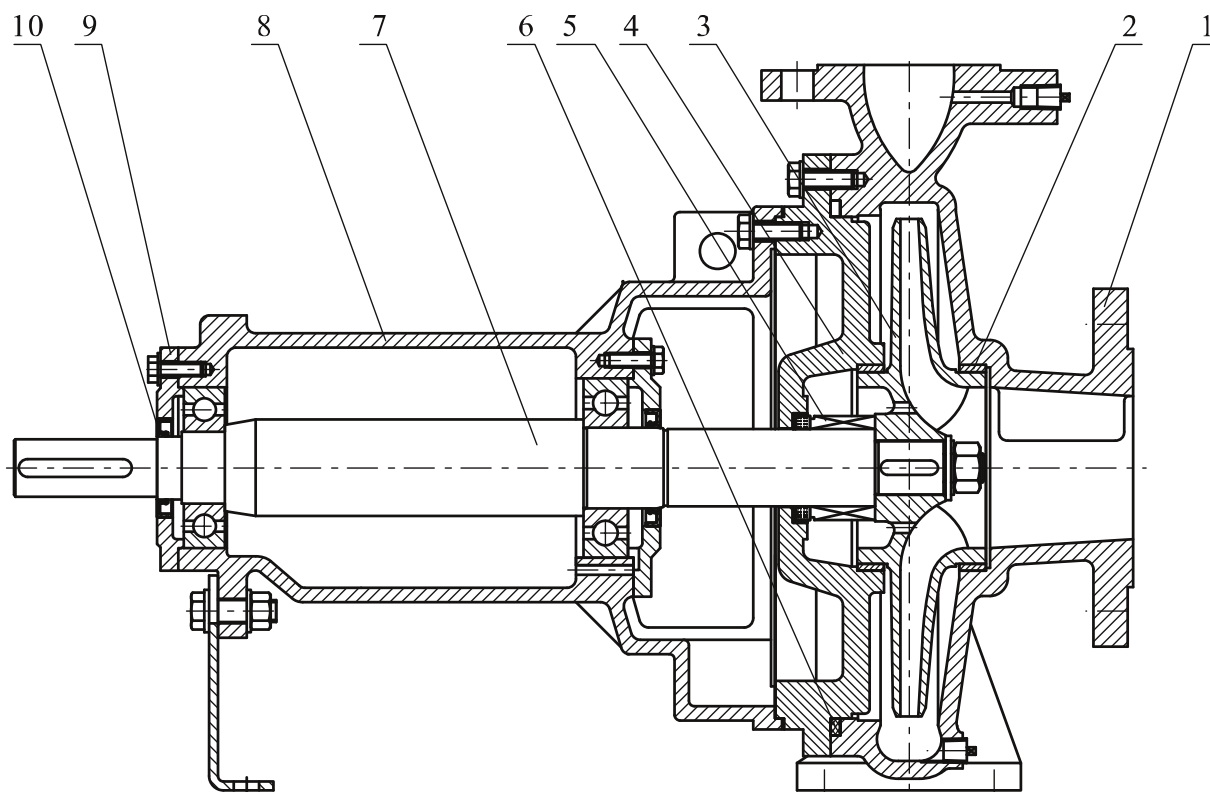
Features

- Back-pull-out design, without having to disturb pump body and pipelines when servicing.
- All the models only use 4 kinds of pump shafts and bearing cover, make parts exchangeable.
- Impeller is optimum design, inlet is enlarged, no whirlpool, deduct the water pump NPSH efficiently, which makes pump work stable with little noise.
- Casing and casing cover use wearing neck ring structure, which makes pump easy to maintain, makes parts work longer. The replaceable seal ring, makes pump work efficiently in a long time.

Model performance drawing



Sectional drawing



Part list

No.	Name	Material	Code/AISI/ASTM
1	Casing	Cast Iron HT200	ASTM25B
2	Wear ring	Cast Iron HT200	ASTM25B
3	Impeller	Cast Iron HT200	ASTM25B
4	Casing cover	Cast Iron HT200	ASTM25B
5	Mechanical seal	Carbon/Silicon Carbide	
6	O ring	NBR	
7	Shaft	SS 2Cr13	AISI420
8	Bearing housing	Cast Iron HT200	ASTM25B
9	Bearing cover	Cast Iron HT200	ASTM25B
10	Seal	NBR	

Models

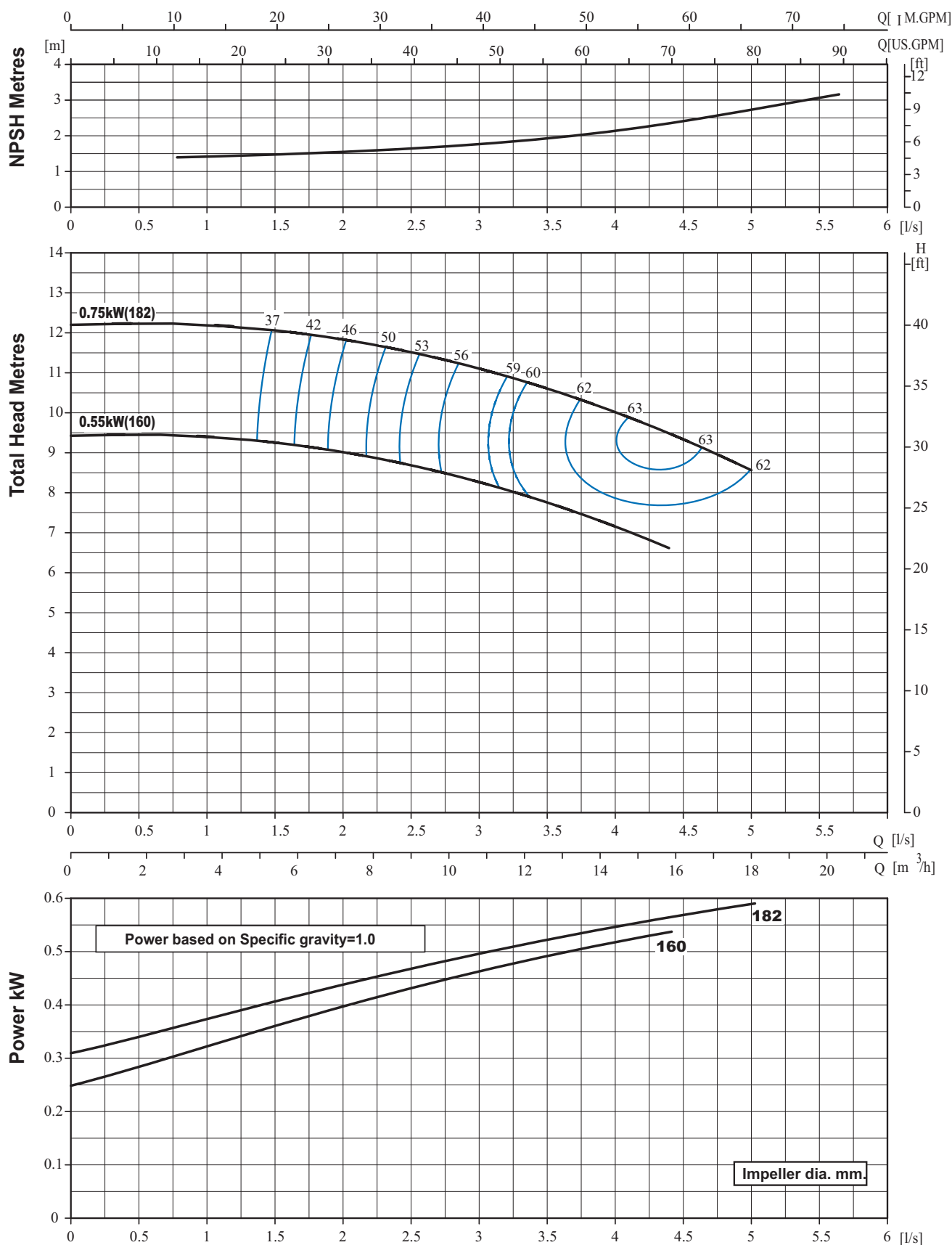
4 Pole

No.	Model	Q [m³/h]	H [m]	Motor [kW]	n [r/min]
1	50-32-160/0.55	6.3	8.5	0.55	1450
2	50-32-160/0.75		11	0.75	
3	50-32-200/1.1		14	1.1	
4	50-32-200/1.5		18	1.5	
5	65-40-200/1.1	12.5	12	1.1	
6	65-40-200/1.5		15	1.5	
7	65-40-200/2.2		17.5	2.2	
8	65-40-250/3		25	3	
9	65-40-315/4		34	4	
10	65-40-315/5.5		40	5.5	
11	65-50-160/0.55		7	0.55	
12	65-50-160/0.75		9	0.75	
13	65-50-160/1.1		10.5	1.1	
14	80-50-200/1.5	25	11	1.5	
15	80-50-200/2.2		15	2.2	
16	80-50-200/3		17.5	3	
17	80-50-250/4		21	4	
18	80-50-250/5.5		25	5.5	
19	80-50-315/5.5		30	5.5	
20	80-50-315/7.5		37	7.5	
21	80-65-160/0.75		6	0.75	
22	80-65-160/1.1		8	1.1	
23	80-65-160/1.5		10.5	1.5	
24	100-65-200/3	50	11.5	3	1480
25	100-65-200/4		14	4	
26	100-65-200/5.5		16	5.5	
27	100-65-250/5.5		20	5.5	
28	100-65-250/7.5		25	7.5	1450
29	100-65-315/11		32	11	
30	100-65-315/15		40	15	
31	100-80-160/1.5		6.5	1.5	
32	100-80-160/2.2		9	2.2	
33	100-80-160/3		10.5	3	

Models

4 Pole

No.	Model	Q [m³/h]	H [m]	Motor [kW]	n [r/min]
34	125-80-400/15	50	39	15	1480
35	125-80-400/18.5		45	18.5	
36	125-80-400/22		50	22	
37	125-80-400/30		60	30	
38	125-80-400/37		67	37	
39	125-100-200/4	100	9	4	1450
40	125-100-200/5.5		11.5	5.5	
41	125-100-200/7.5		14	7.5	
42	125-100-200/11		16.5	11	
43	125-100-250/15		25	15	
44	125-100-315/11		23	11	
45	125-100-315/18.5		32	18.5	
46	125-100-315/22		36	22	
47	125-100-315/30		40	30	
48	125-100-400/30		50	30	
49	125-100-400/37		58	37	
50	125-100-400/45		65	45	
51	150-125-250/11	200	12.5	11	1480
52	150-125-250/15		16	15	
53	150-125-250/18.5		20	18.5	
54	150-125-250/22		24	22	
55	150-125-315/30		32	30	
56	150-125-315/37		39	37	
57	150-125-400/45		50	45	
58	150-125-400/55		57	55	
59	150-125-400/75		68	75	
60	200-150-315/37	400	23	37	
61	200-150-315/45		27	45	
62	200-150-315/55		32	55	
63	200-150-315/75		38	75	
64	200-150-400/75		43	75	
65	200-150-400/90		50	90	
66	200-150-400/110		62	110	



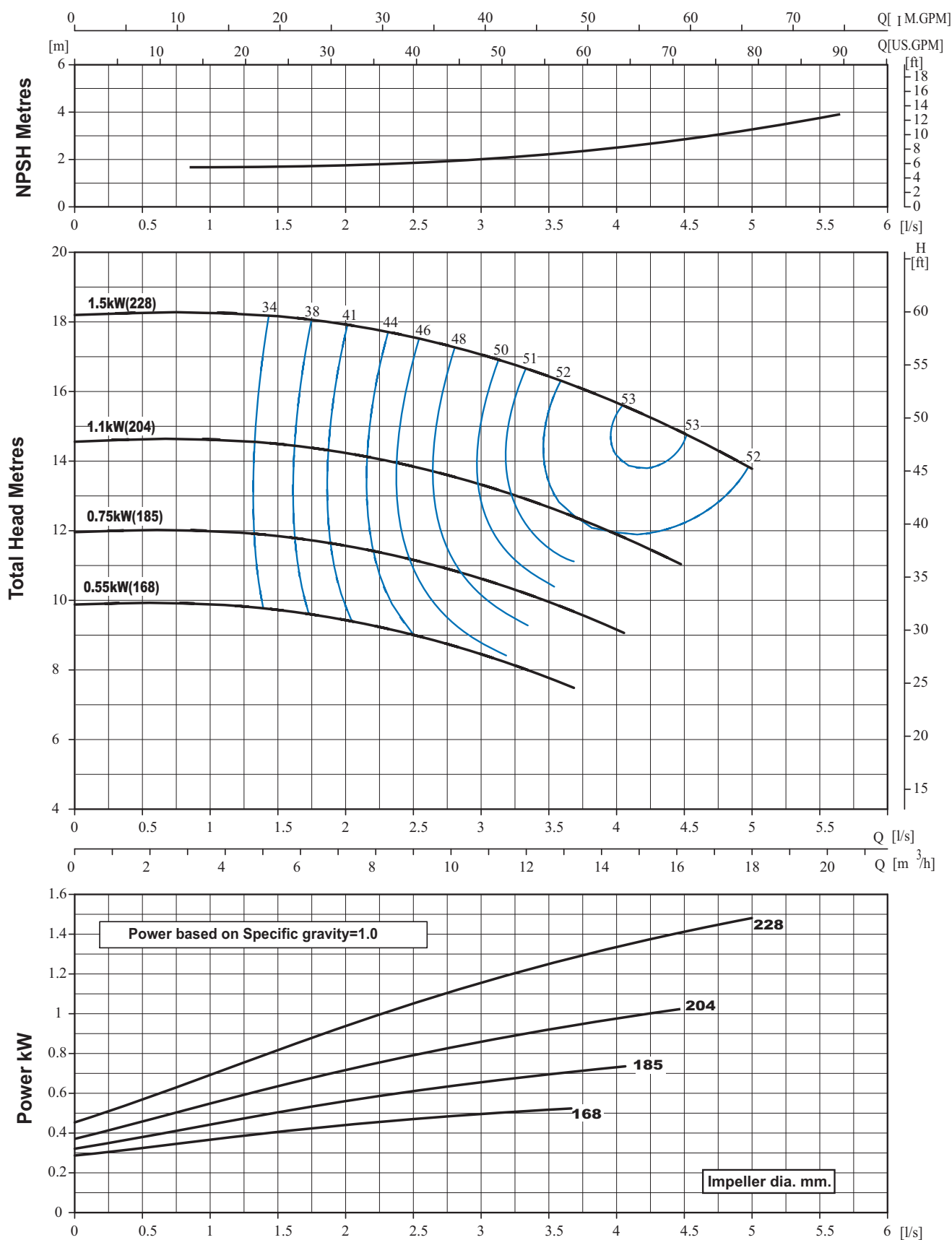
Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
50	32	16 bar	1450	NS 50-32-160

4 POLE

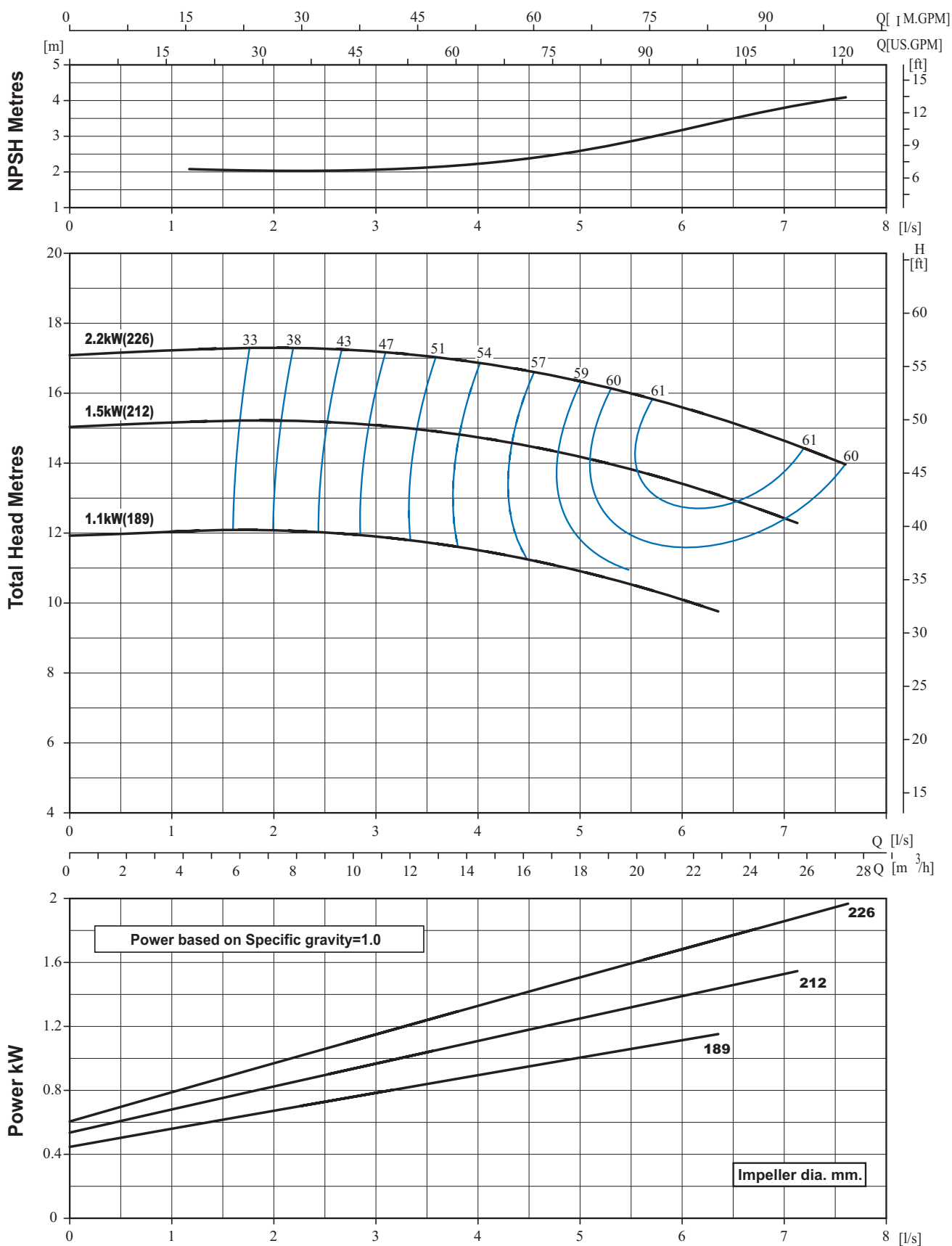


WATER PUMPS



Data based on cold water

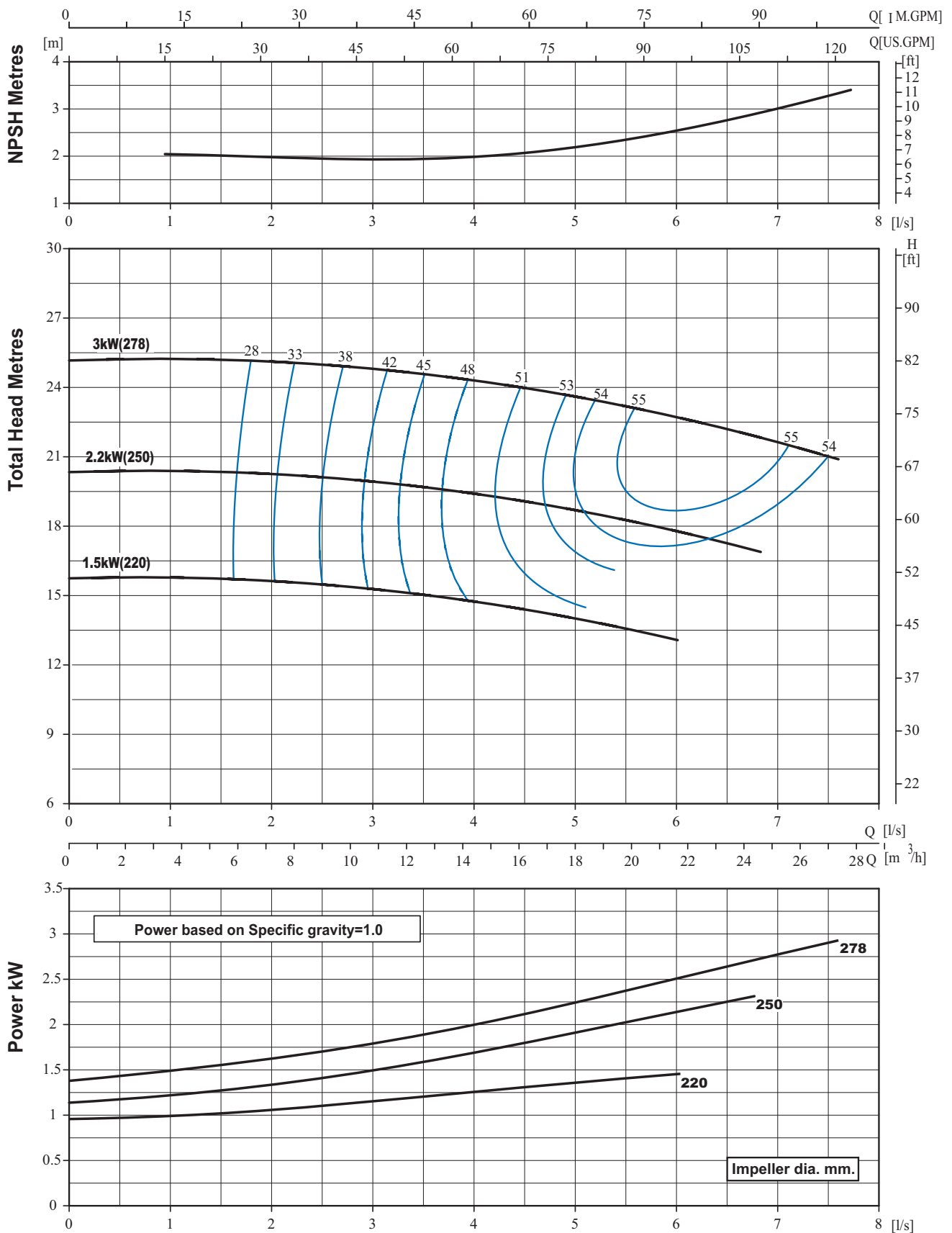
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
50	32	16 bar	1450	NS 50-32-200



Data based on cold water

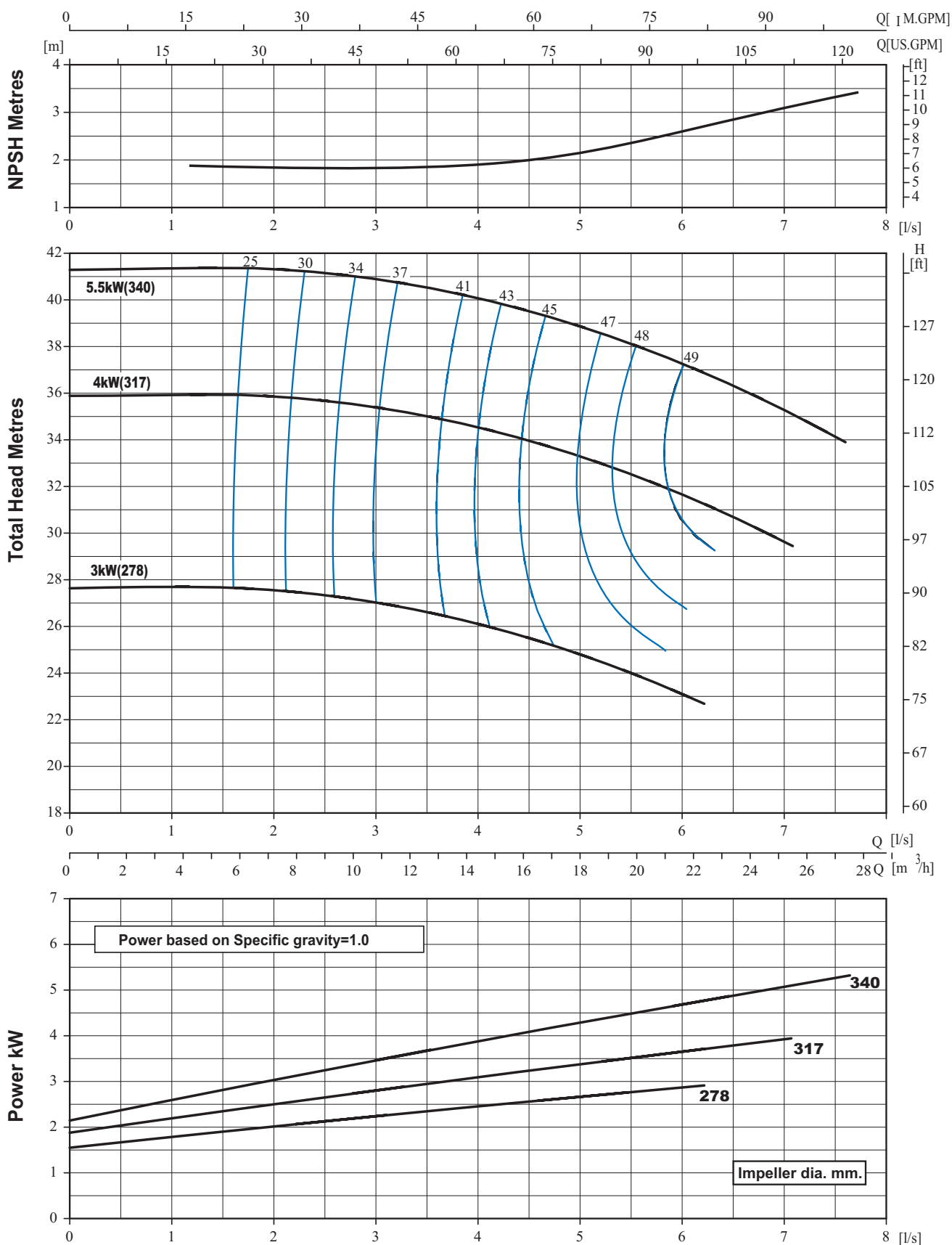
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
65	40	16 bar	1450	NS 65-40-200

4 POLE



Data based on cold water

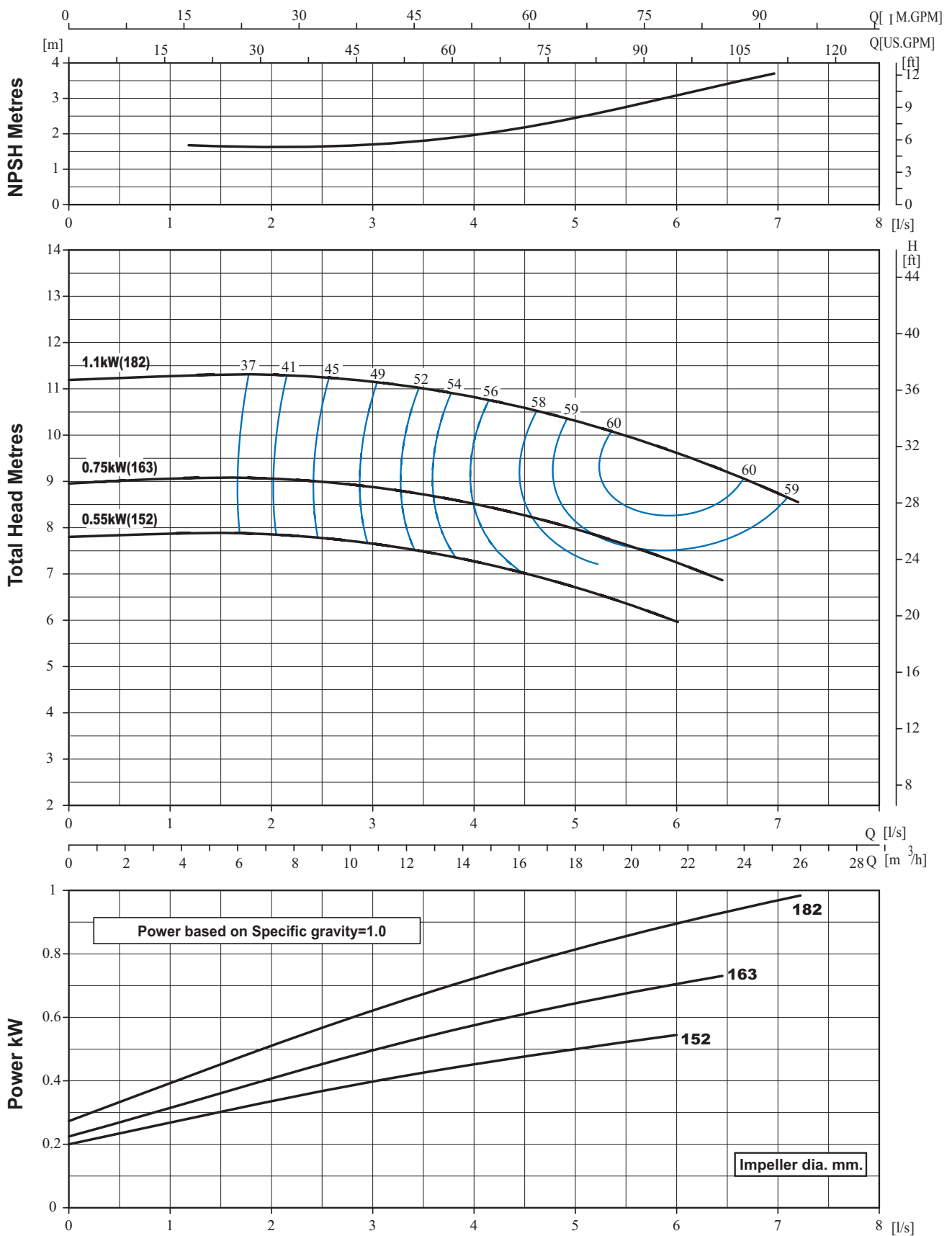
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
65	40	16 bar	1450	NS 65-40-250



Data based on cold water

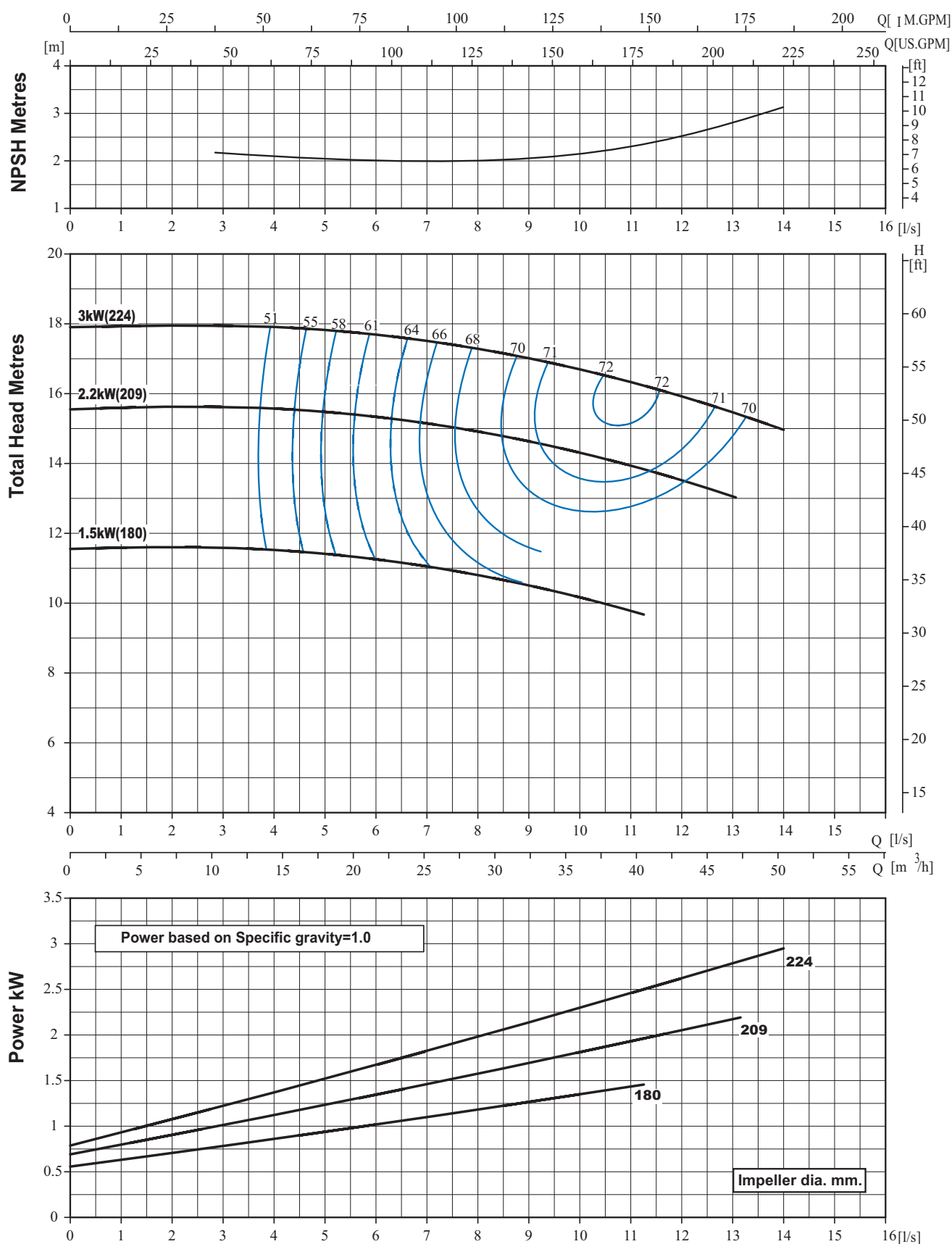
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
65	40	16 bar	1450	NS 65-40-315

4 POLE



Data based on cold water

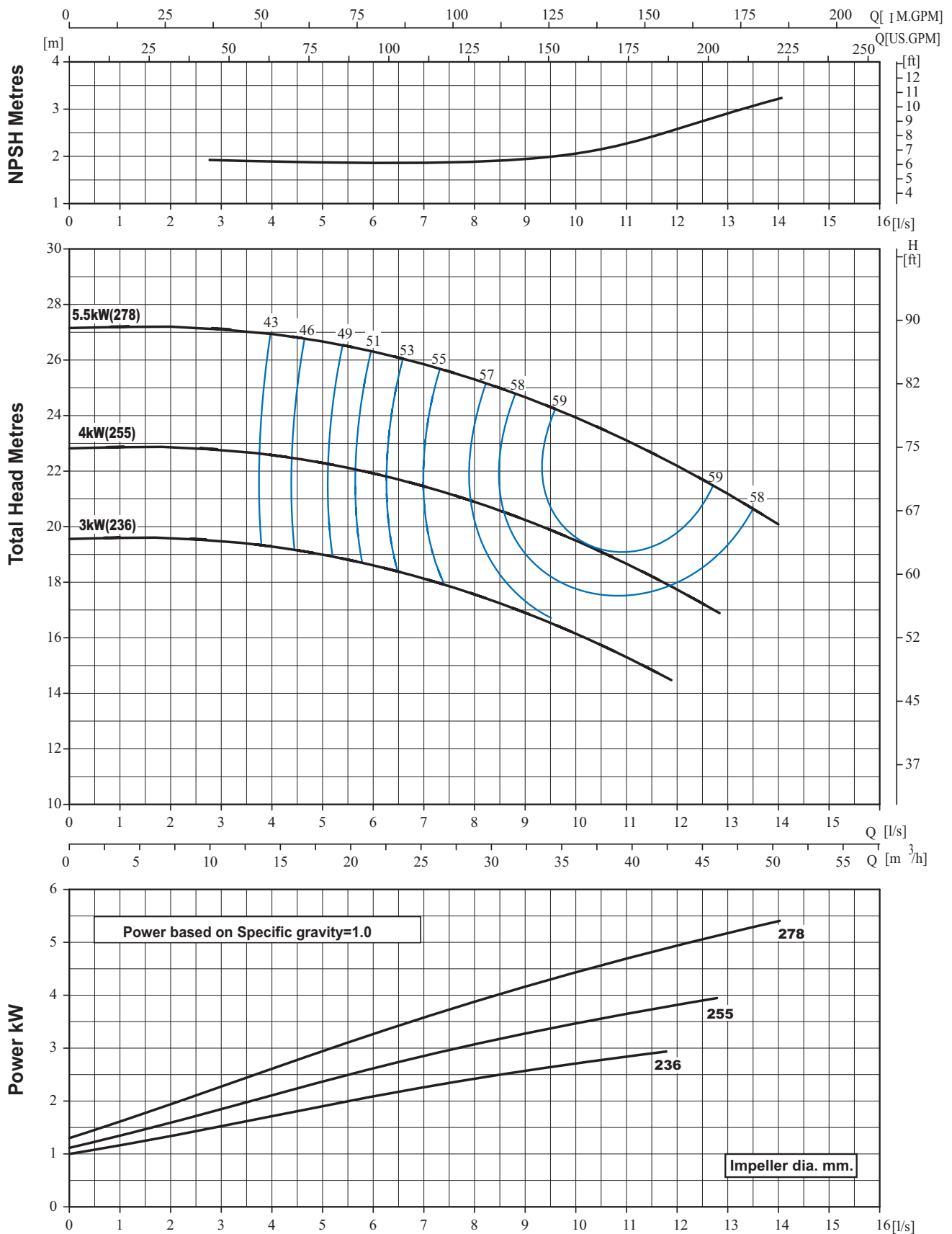
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
65	50	16 bar	1450	NS 65-50-160



Data based on cold water

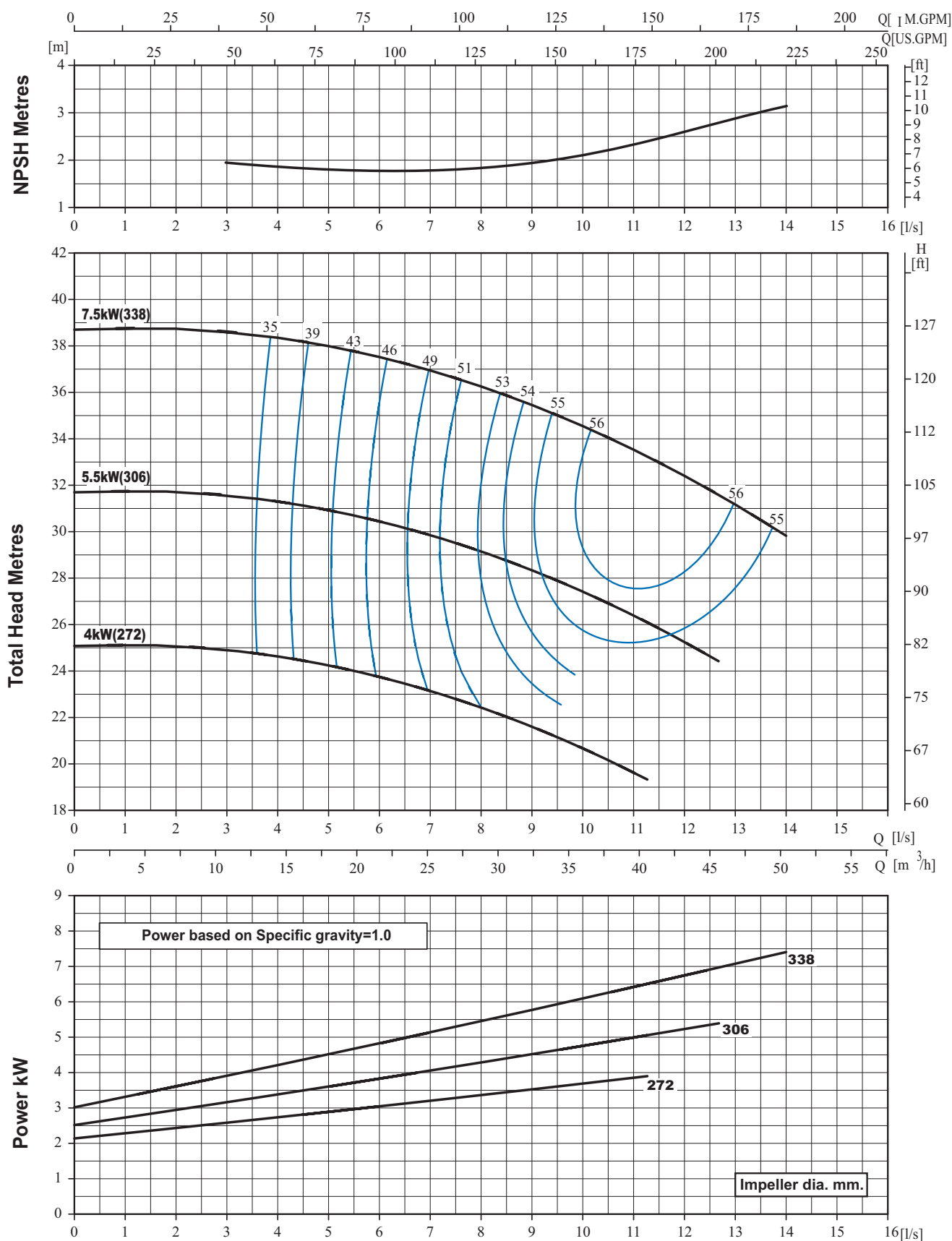
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
80	50	16 bar	1450	NS 80-50-200

4 POLE



Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
80	50	16 bar	1450	NS 80-50-250



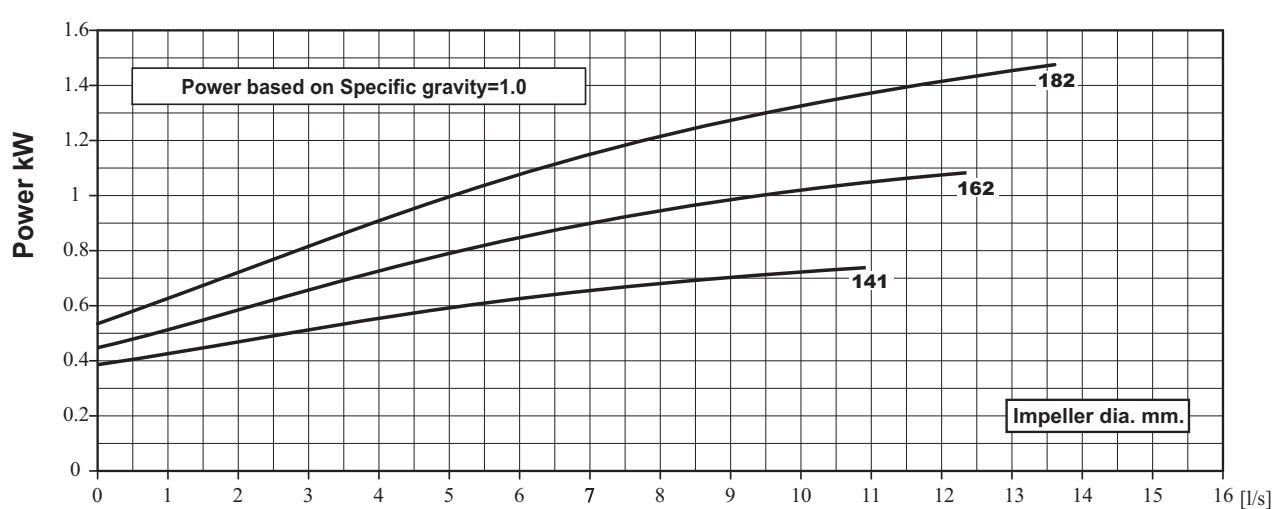
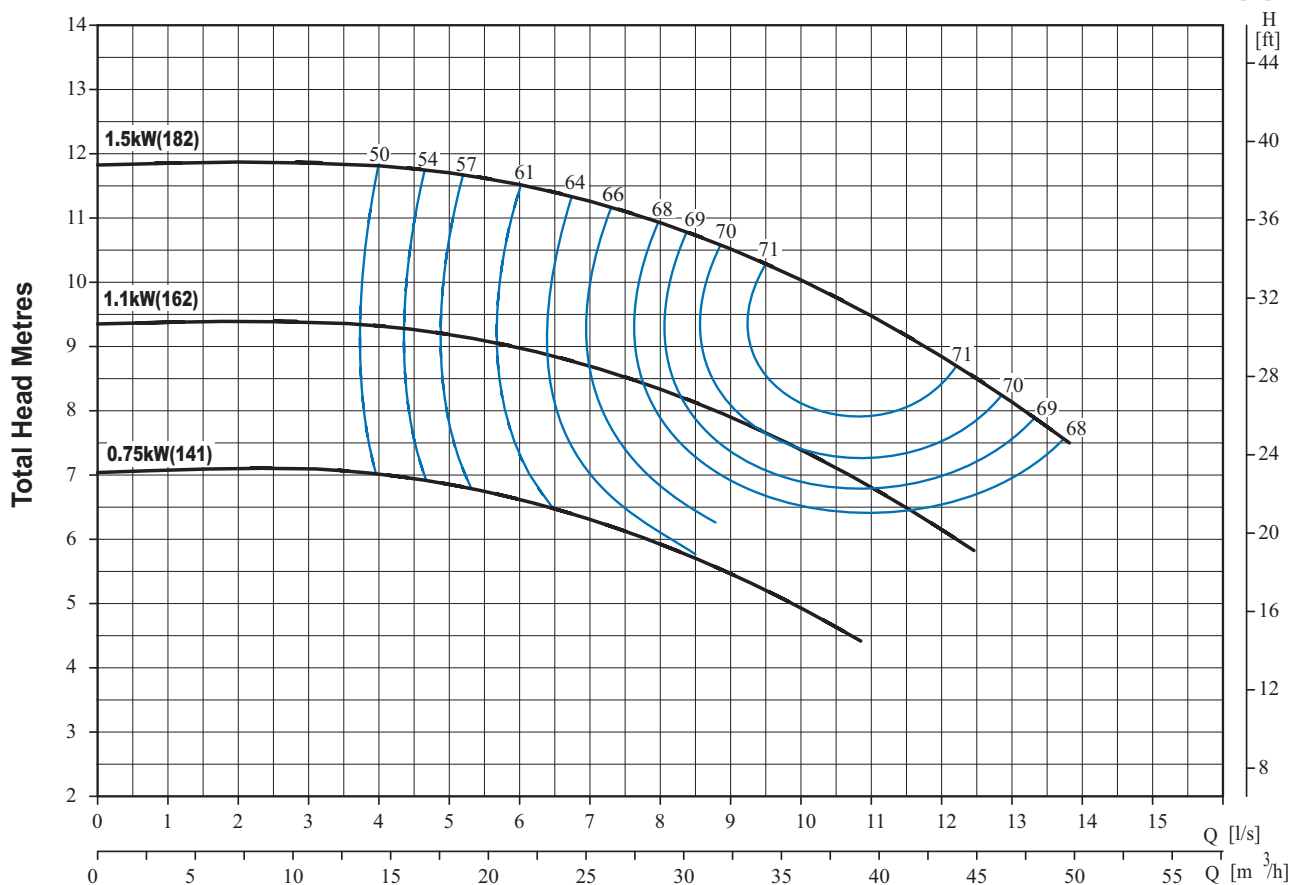
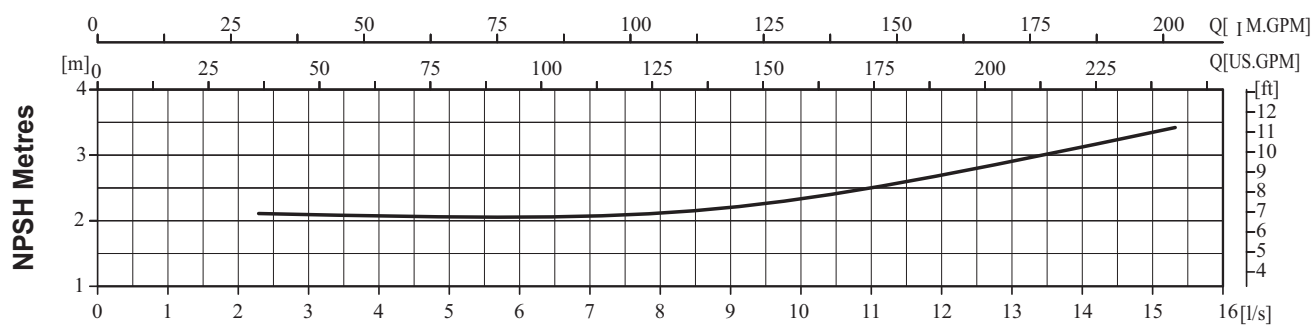
Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
80	50	16 bar	1450	NS 80-50-315

4 POLE

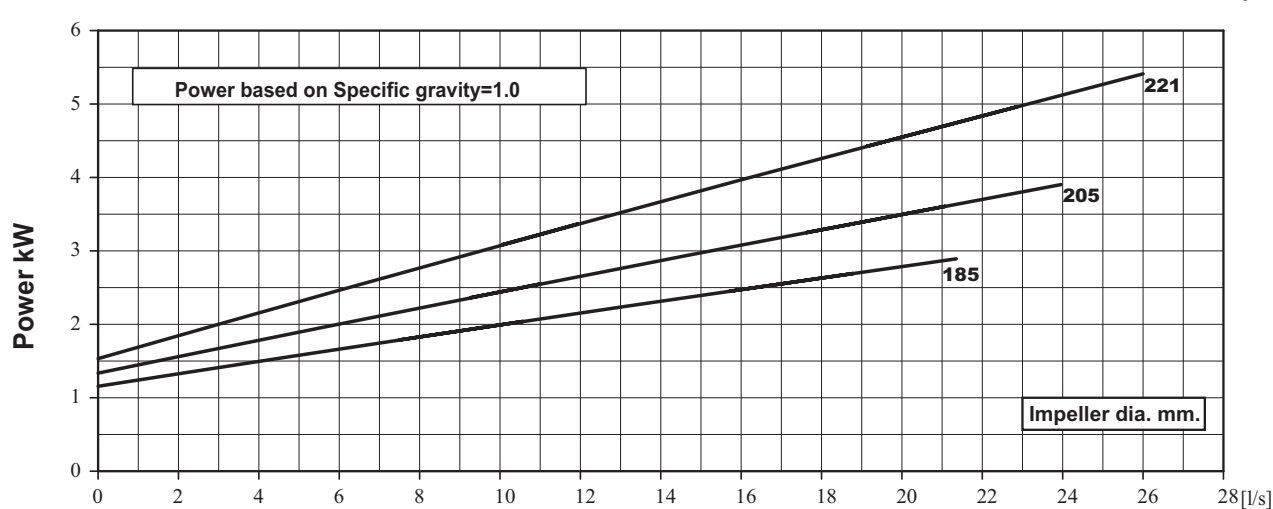
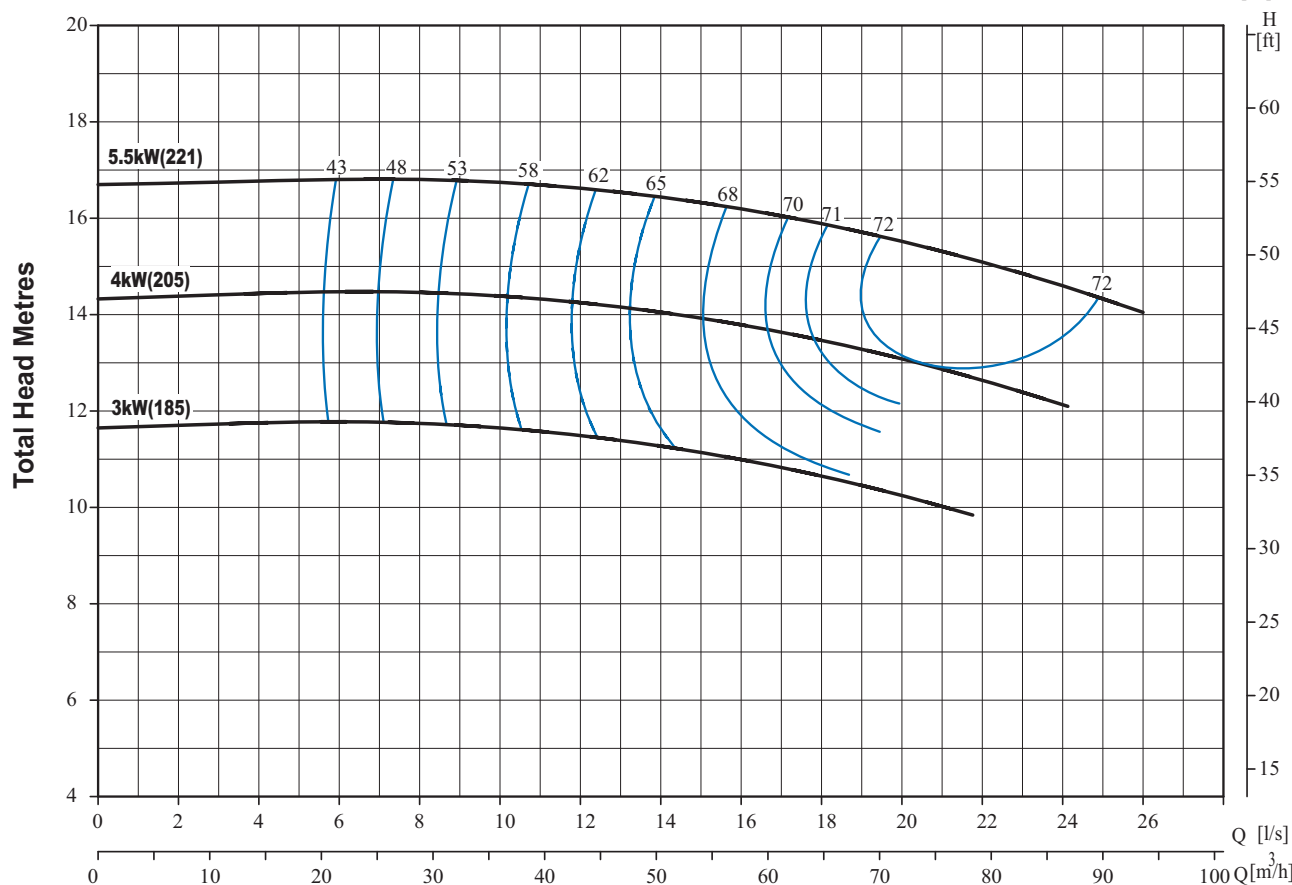
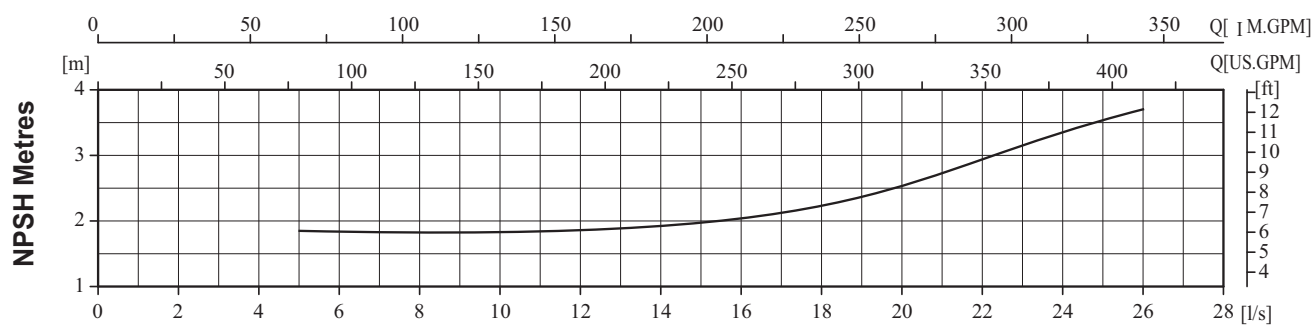


WATER PUMPS



Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
80	65	16 bar	1450	NS 80-65-160



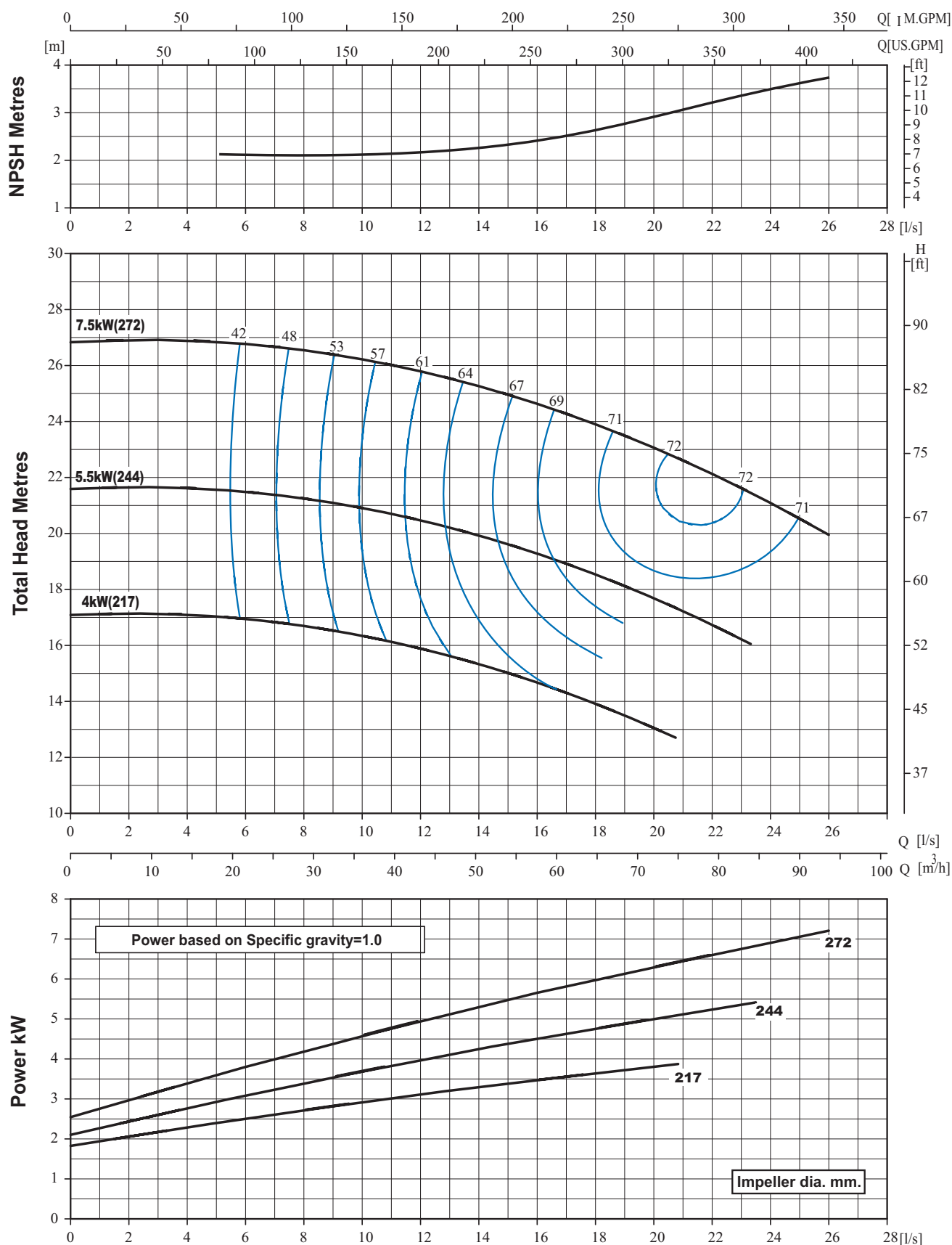
Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
100	65	16 bar	1450	NS 100-65-200

4 POLE

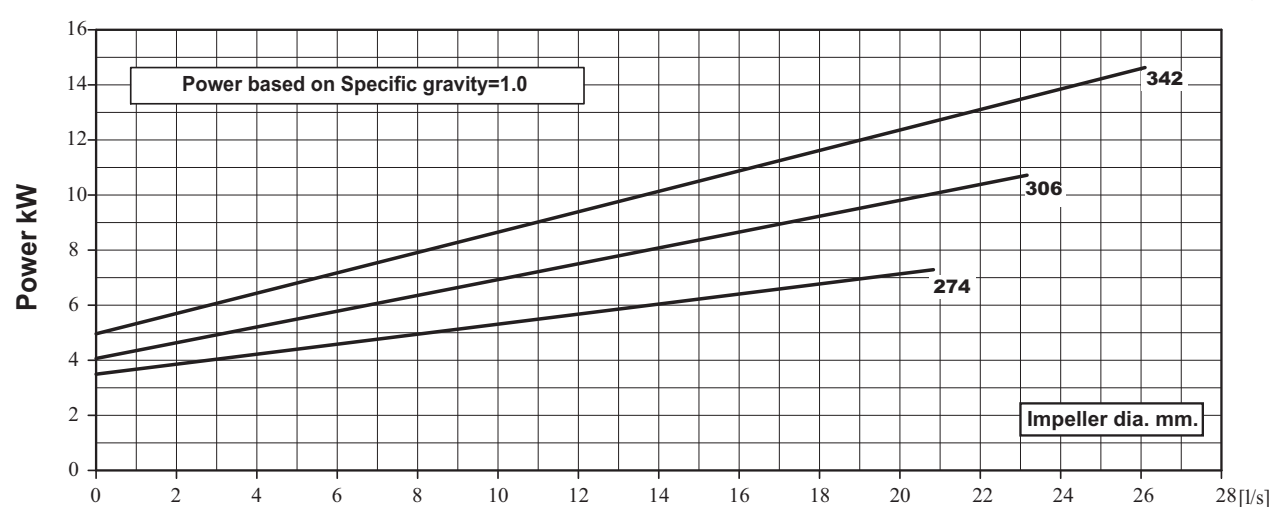
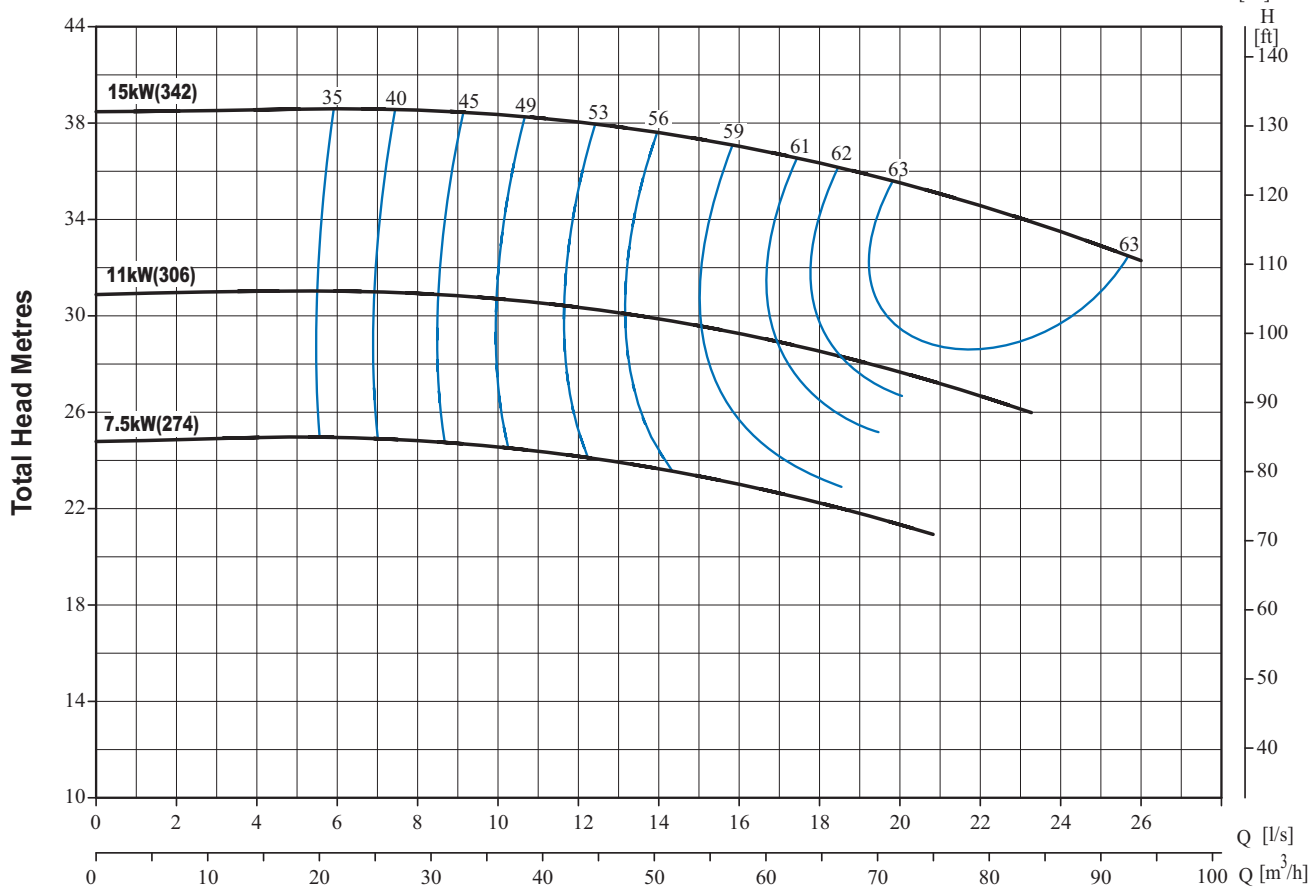
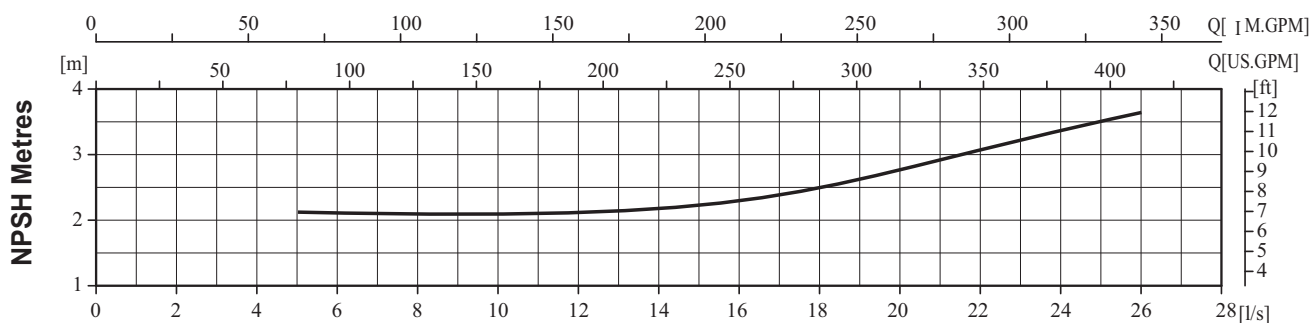


WATER PUMPS



Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
100	65	16 bar	1450	NS 100-65-250



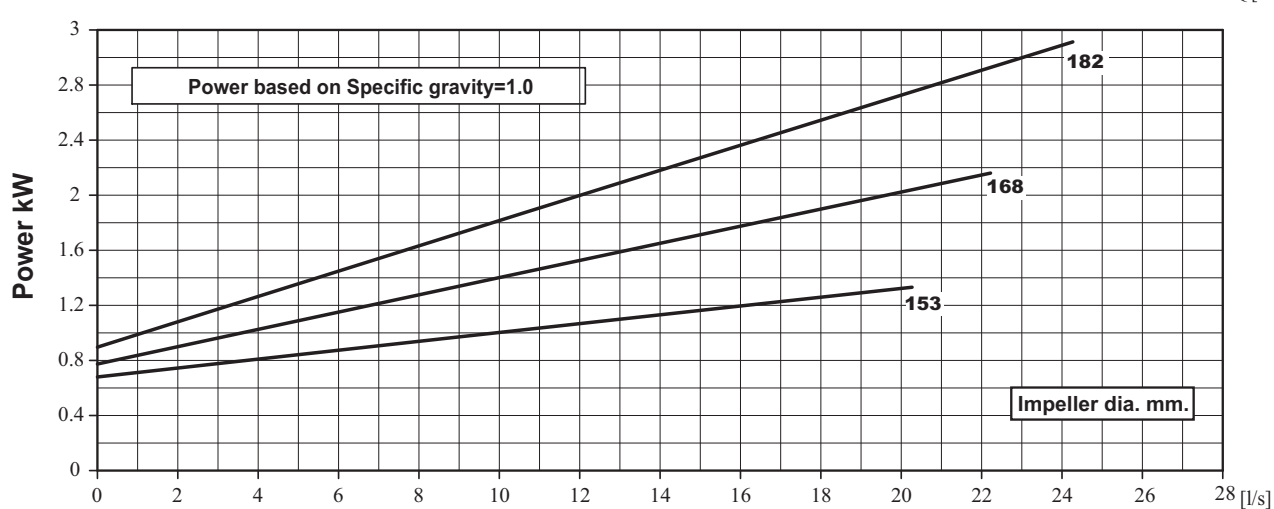
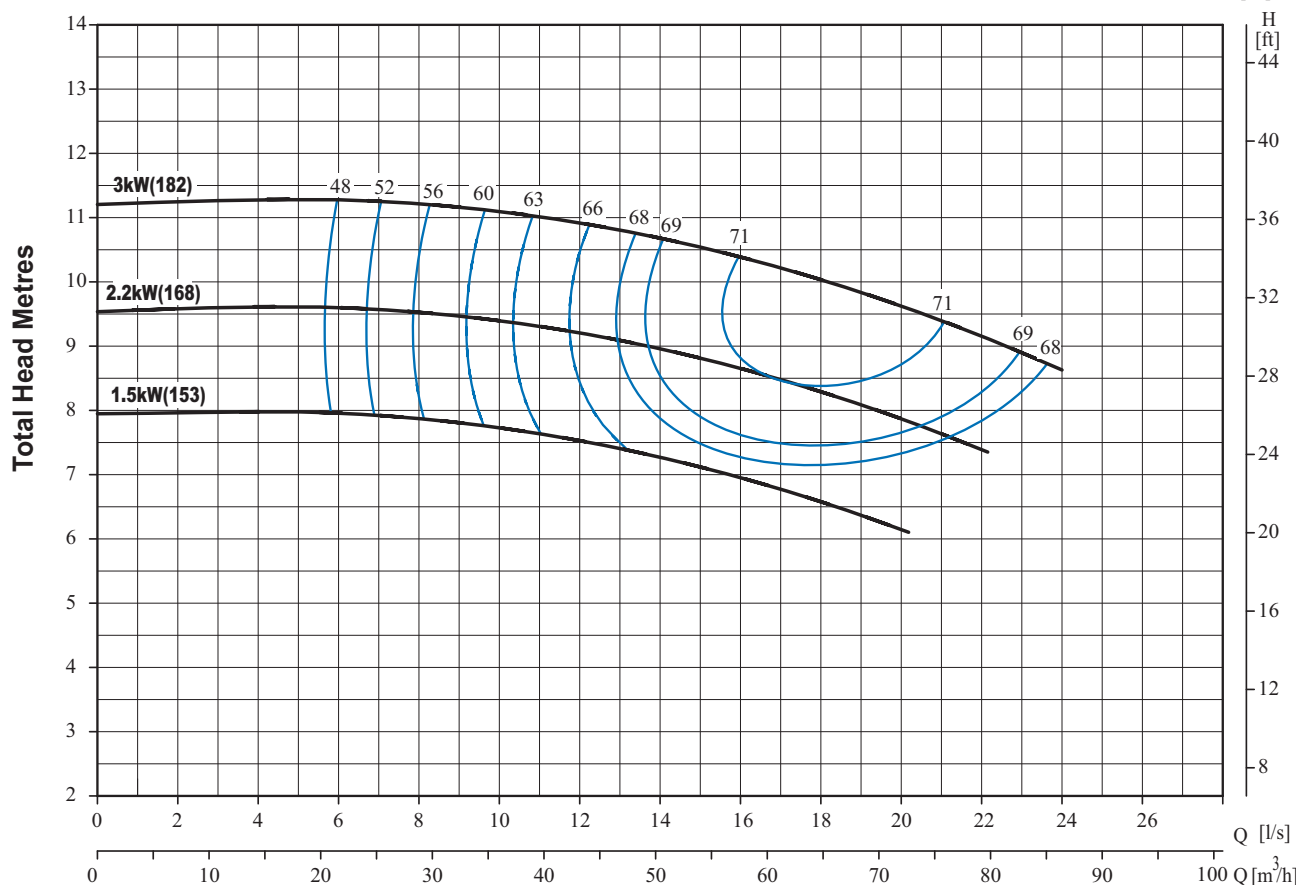
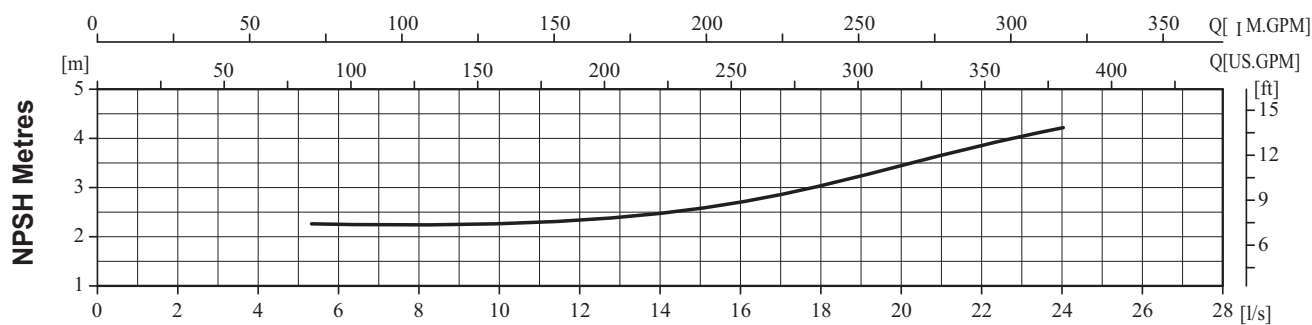
Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
100	65	16 bar	1450	NS 100-65-315

4 POLE

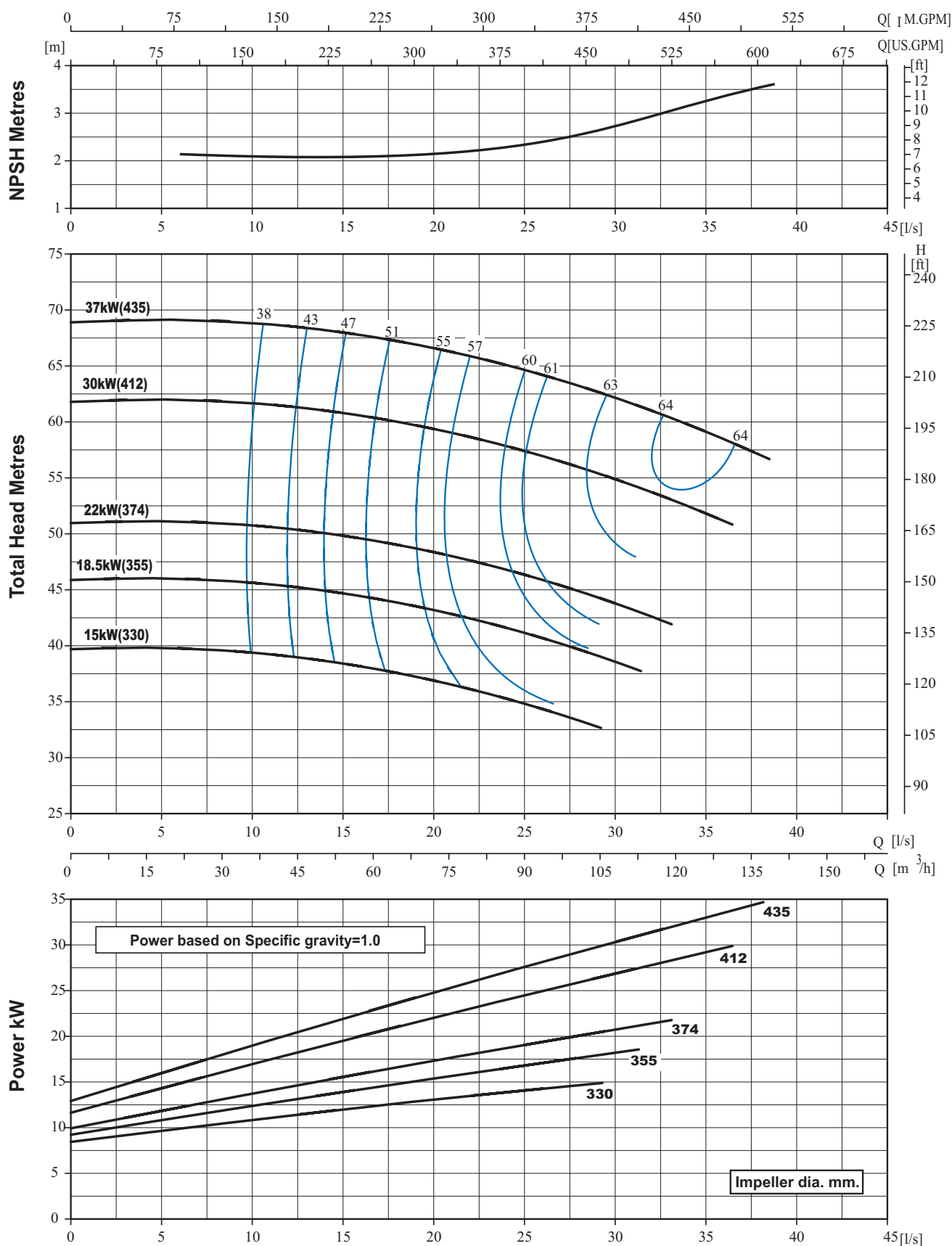


WATER PUMPS



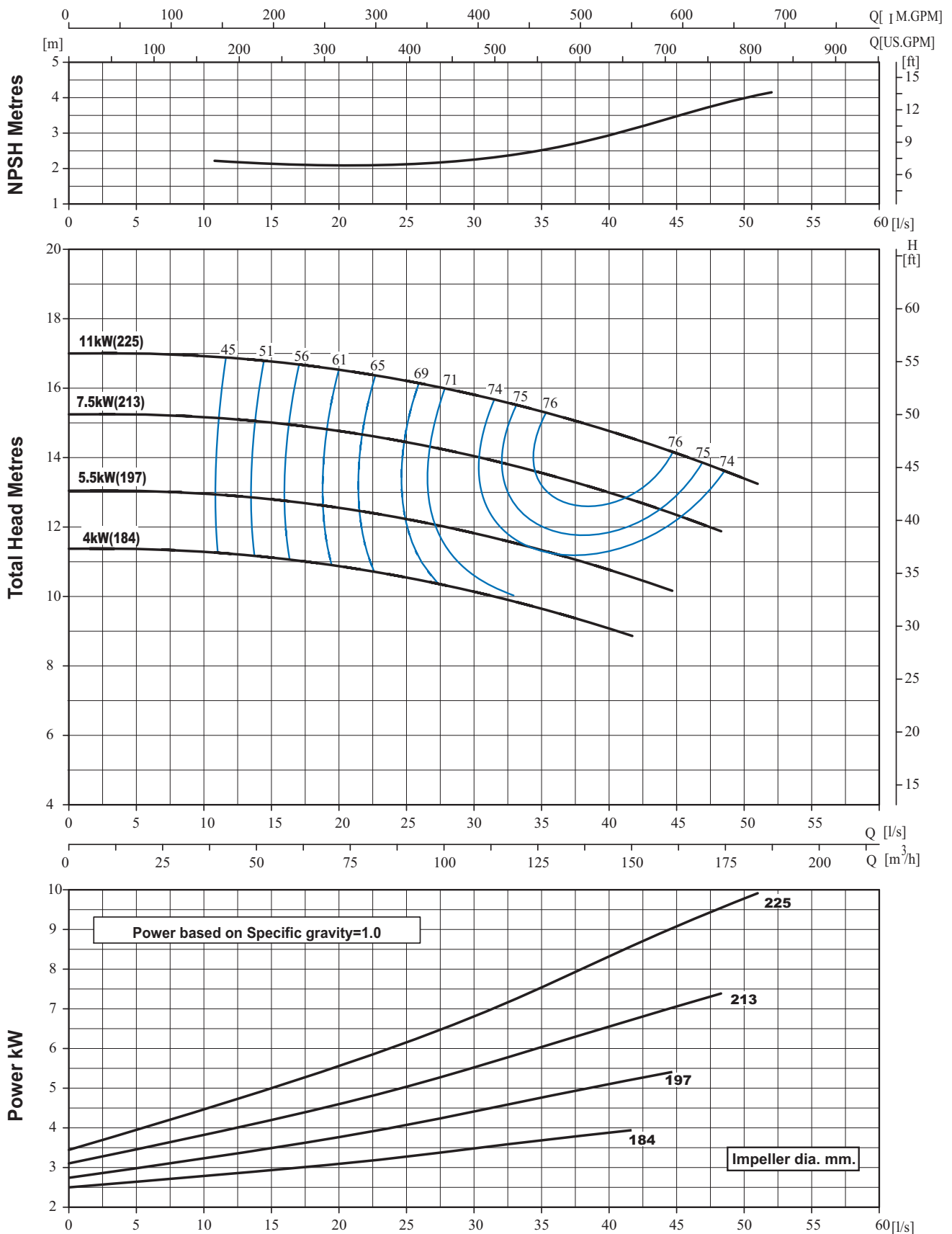
Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
100	80	16 bar	1450	NS 100-80-160



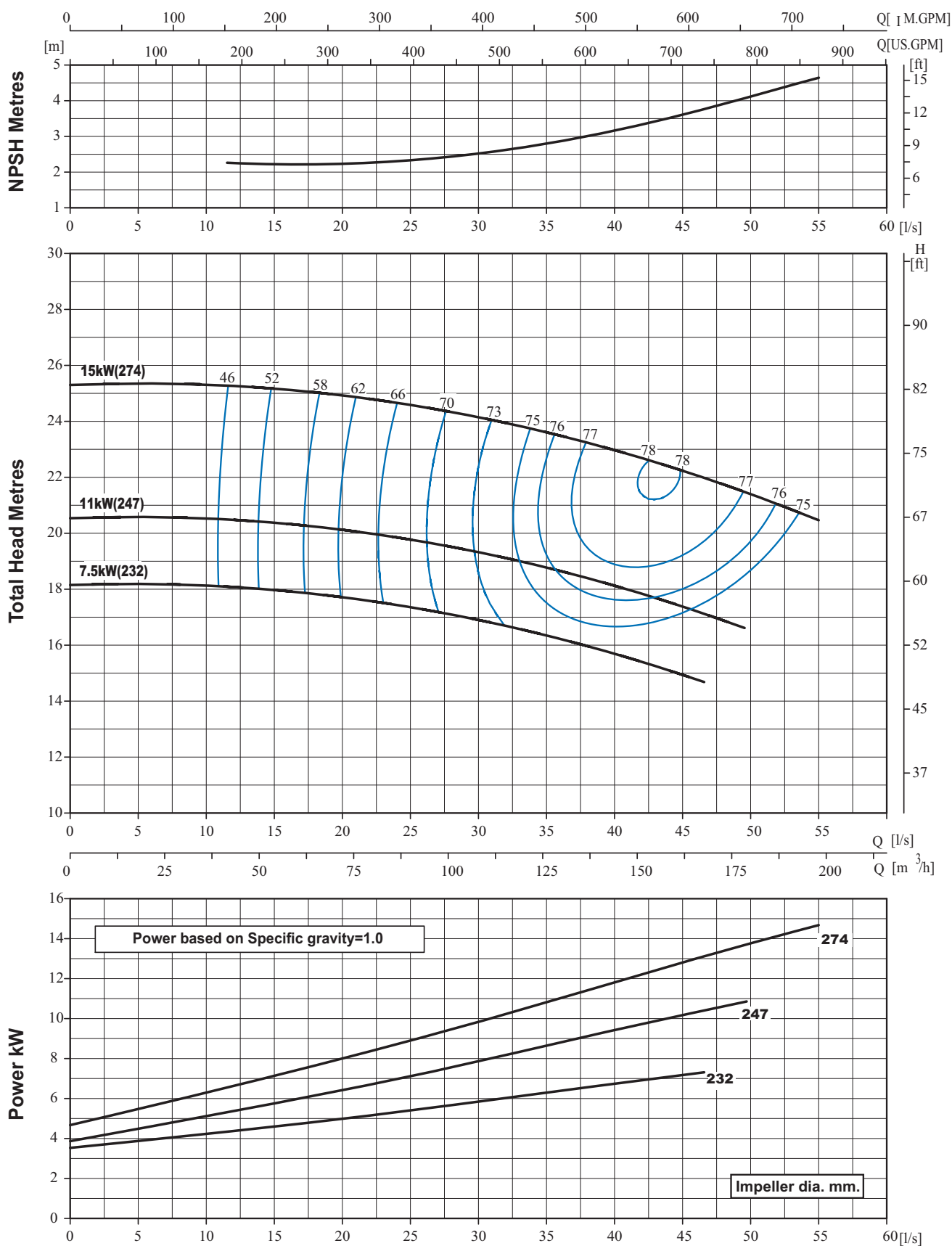
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
125	80	16 bar	1480	NS 125-80-400

4 POLE



Data based on cold water

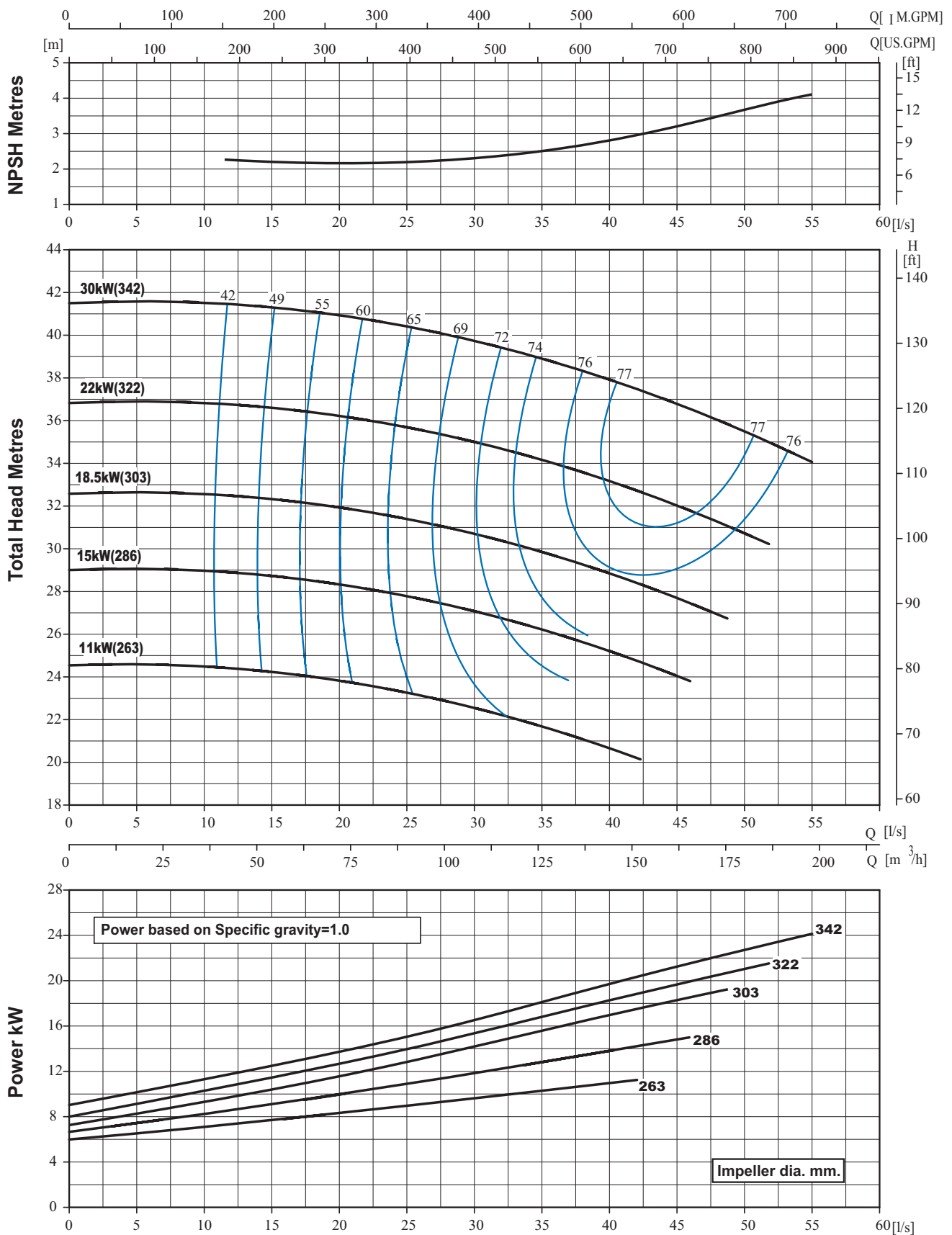
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
125	100	16 bar	1450	NS 125-100-200



Data based on cold water

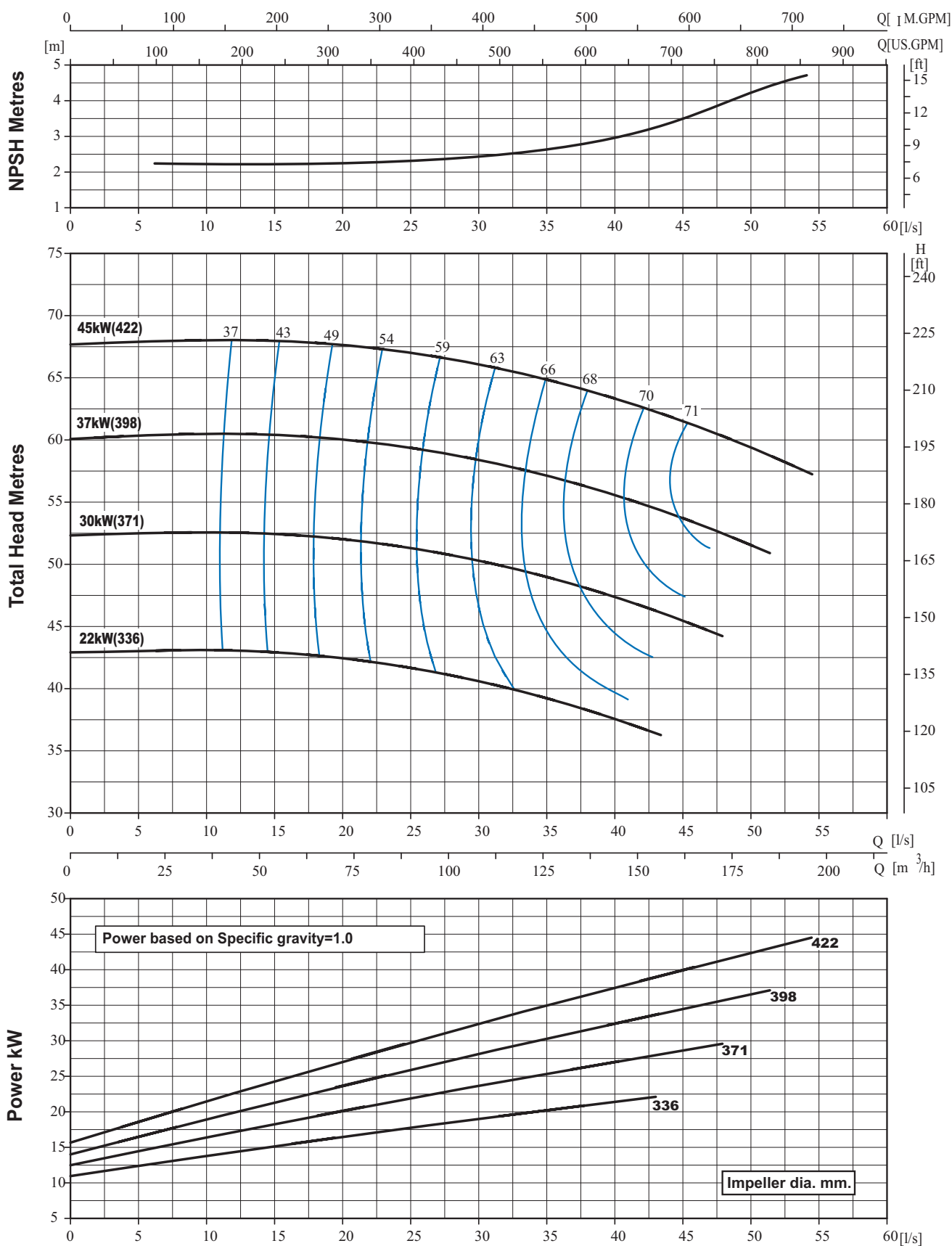
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
125	100	16 bar	1480	NS 125-100-250

4 POLE



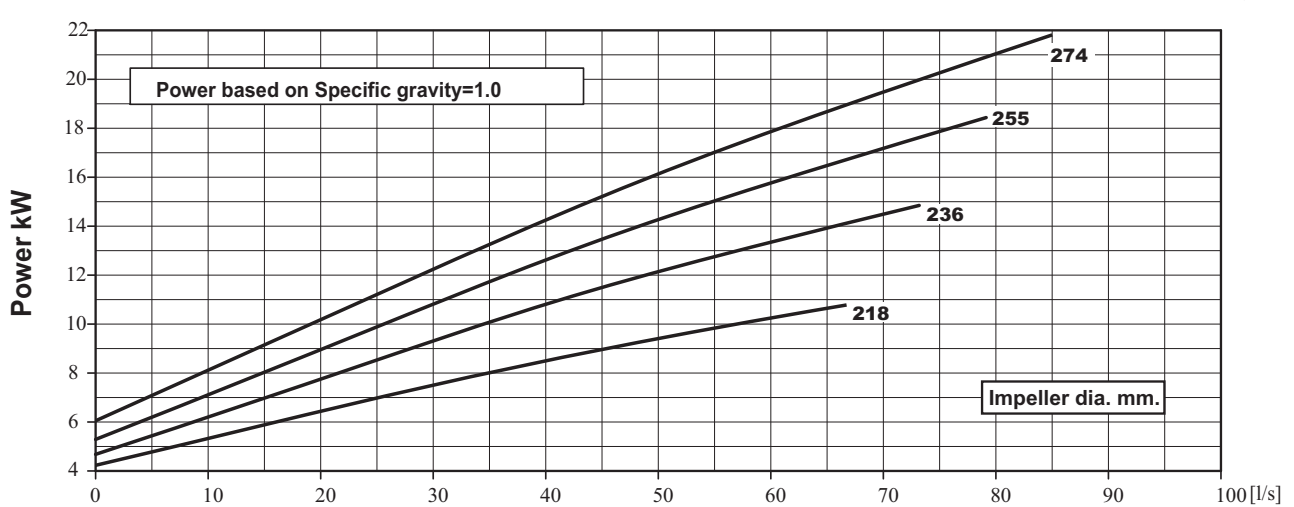
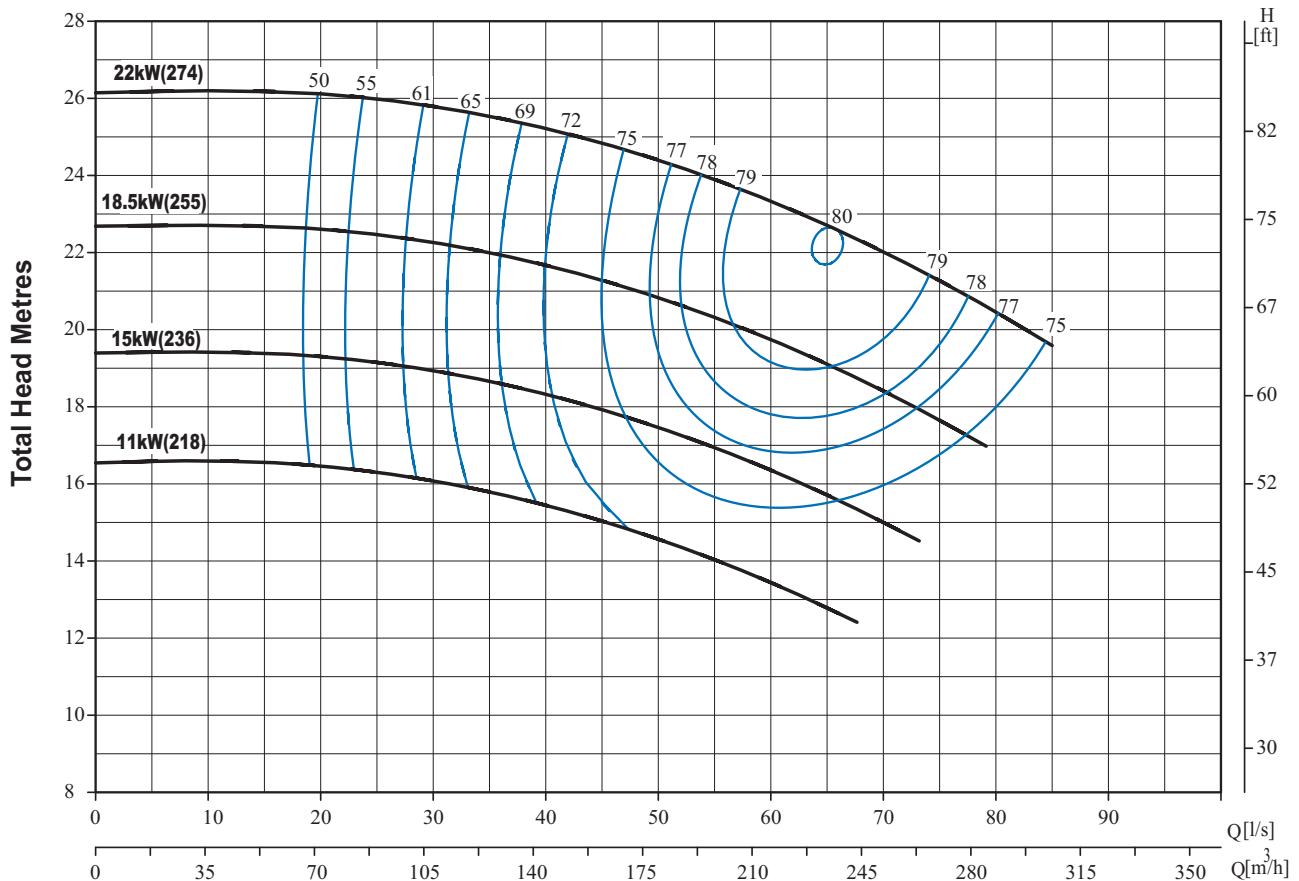
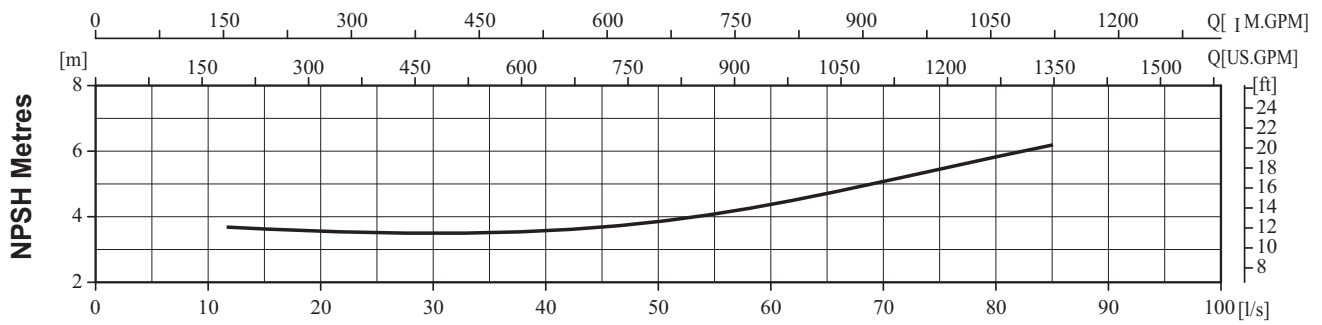
Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
125	100	16 bar	1480	NS 125-100-315



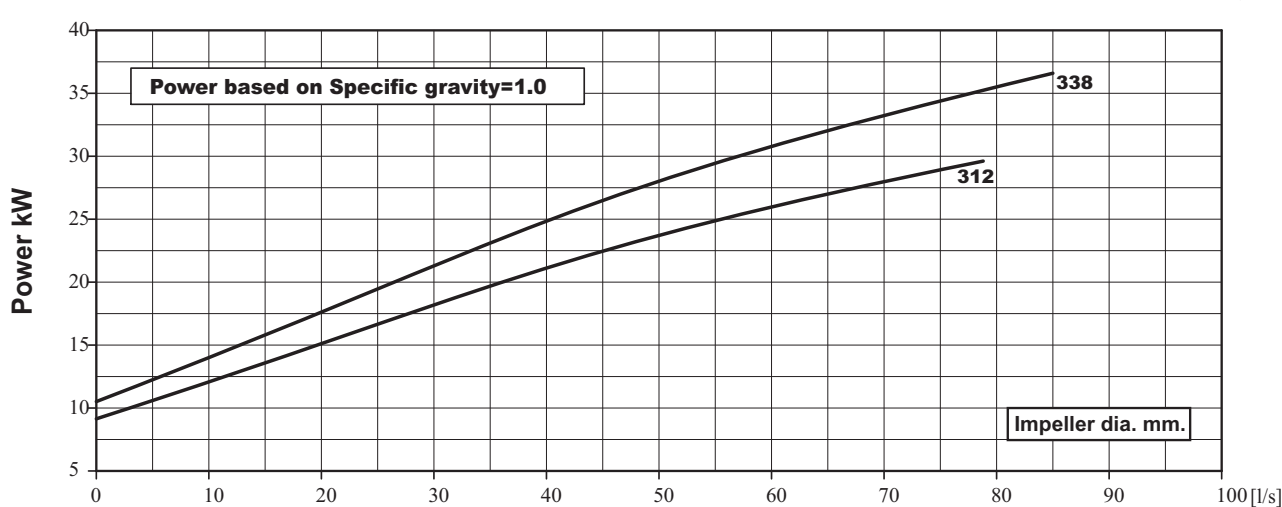
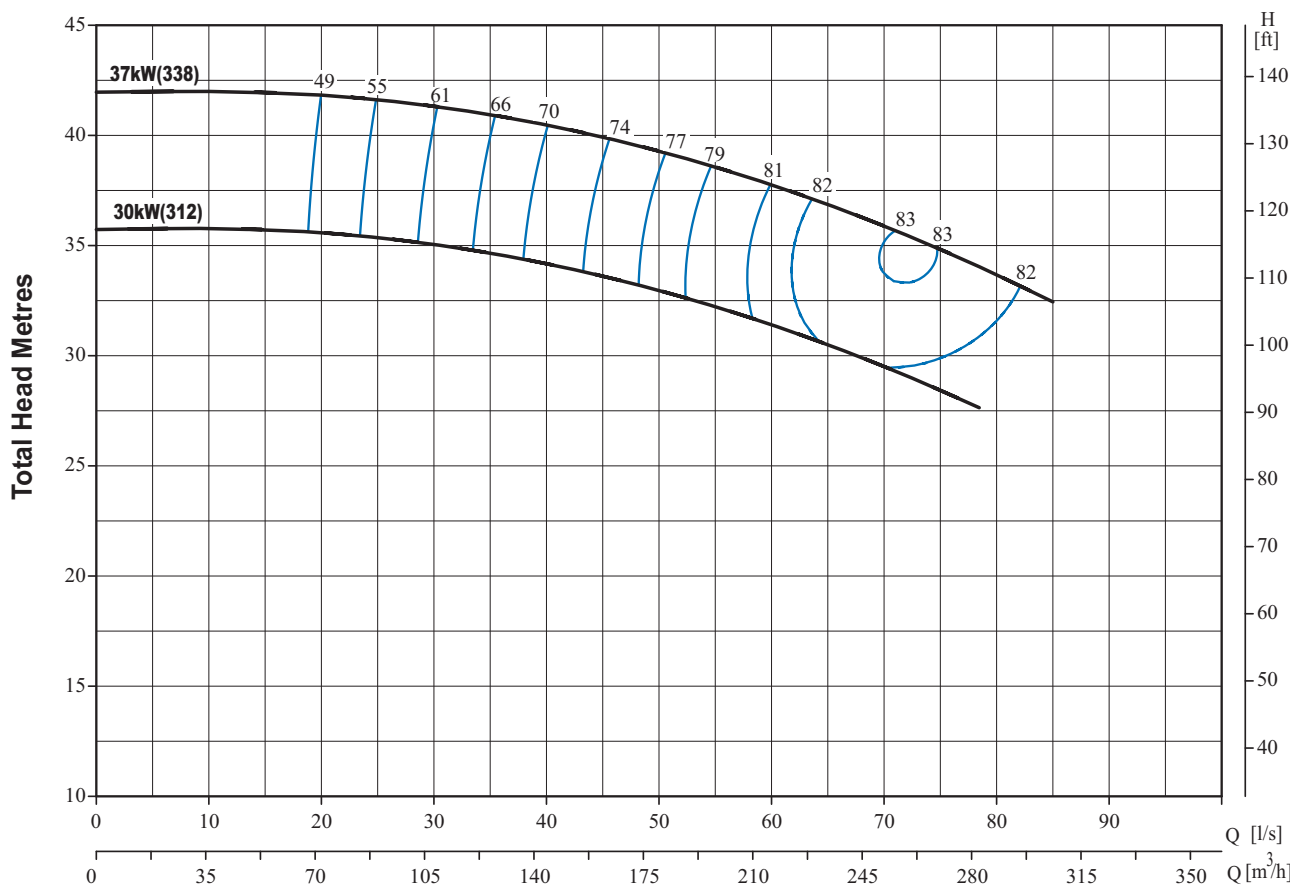
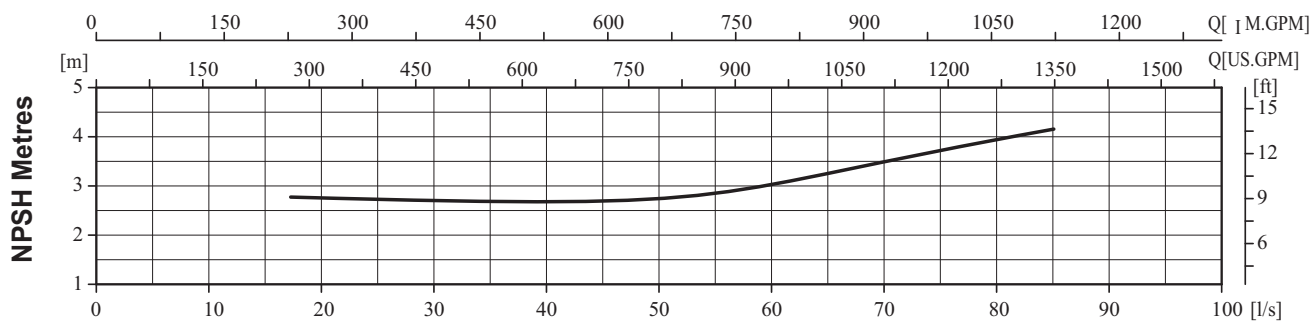
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
125	100	16 bar	1480	NS 125-100-400

4 POLE



Data based on cold water

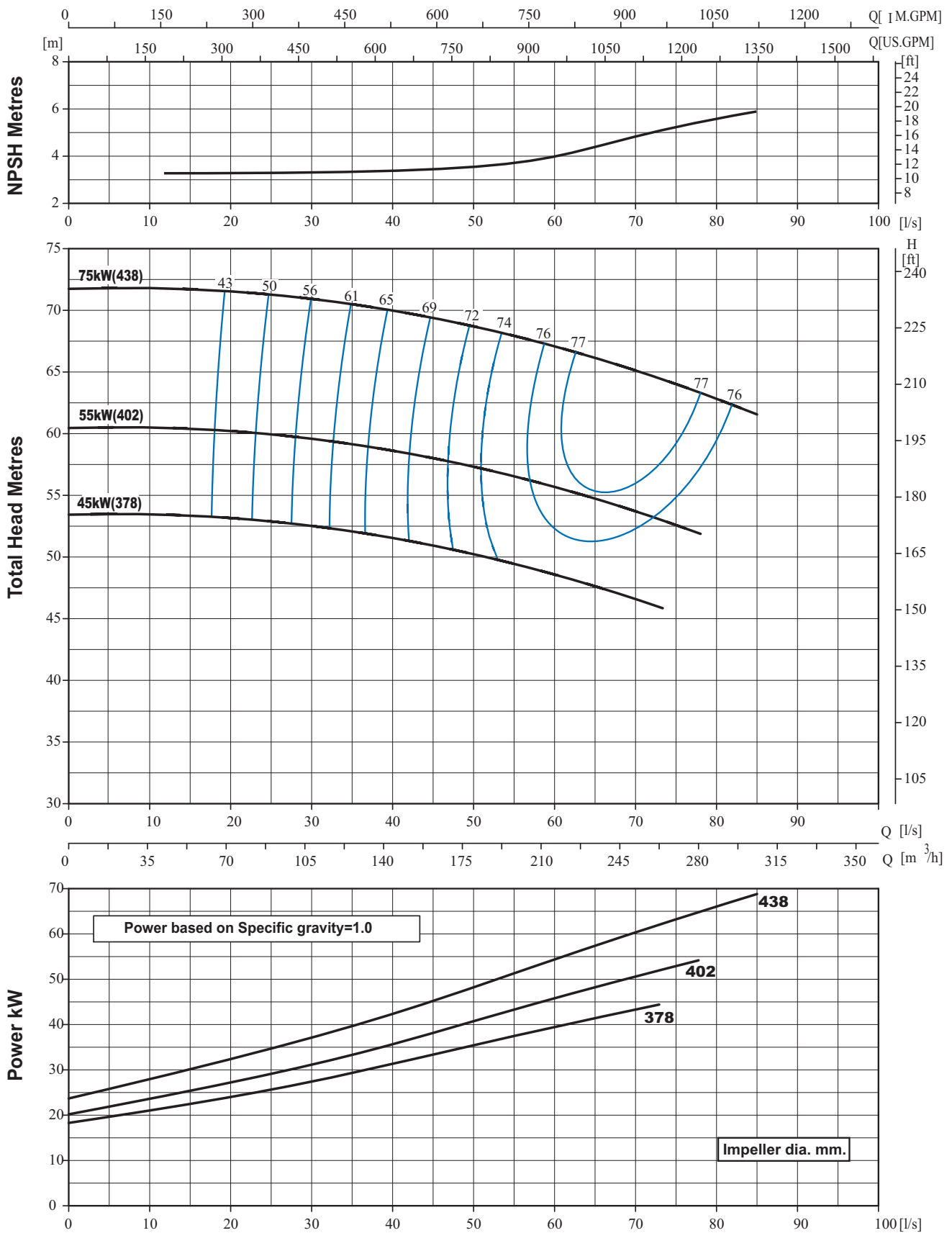
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
150	125	16 bar	1480	NS 150-125-250



Data based on cold water

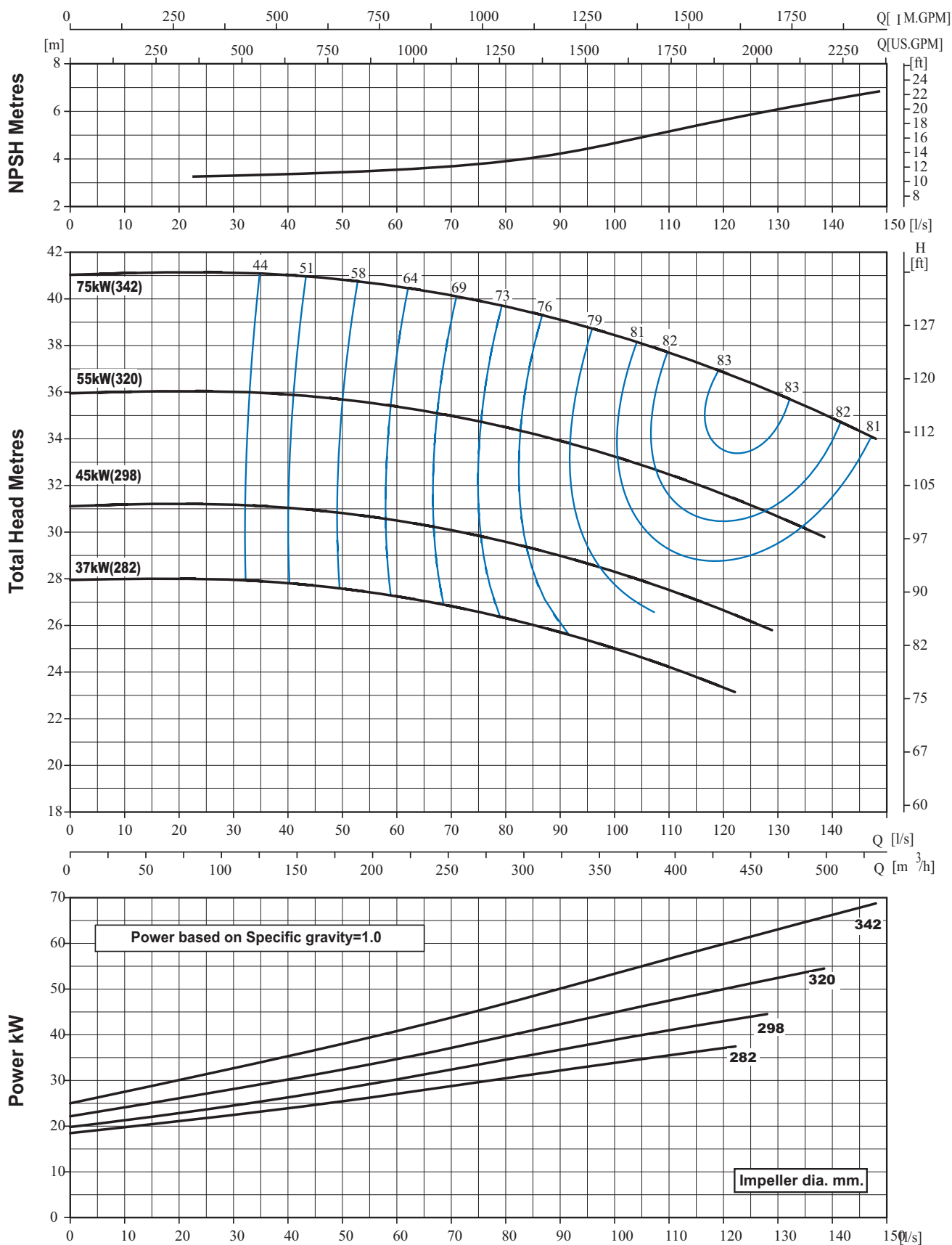
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
150	125	16 bar	1480	NS 150-125-315

4 POLE



Data based on cold water

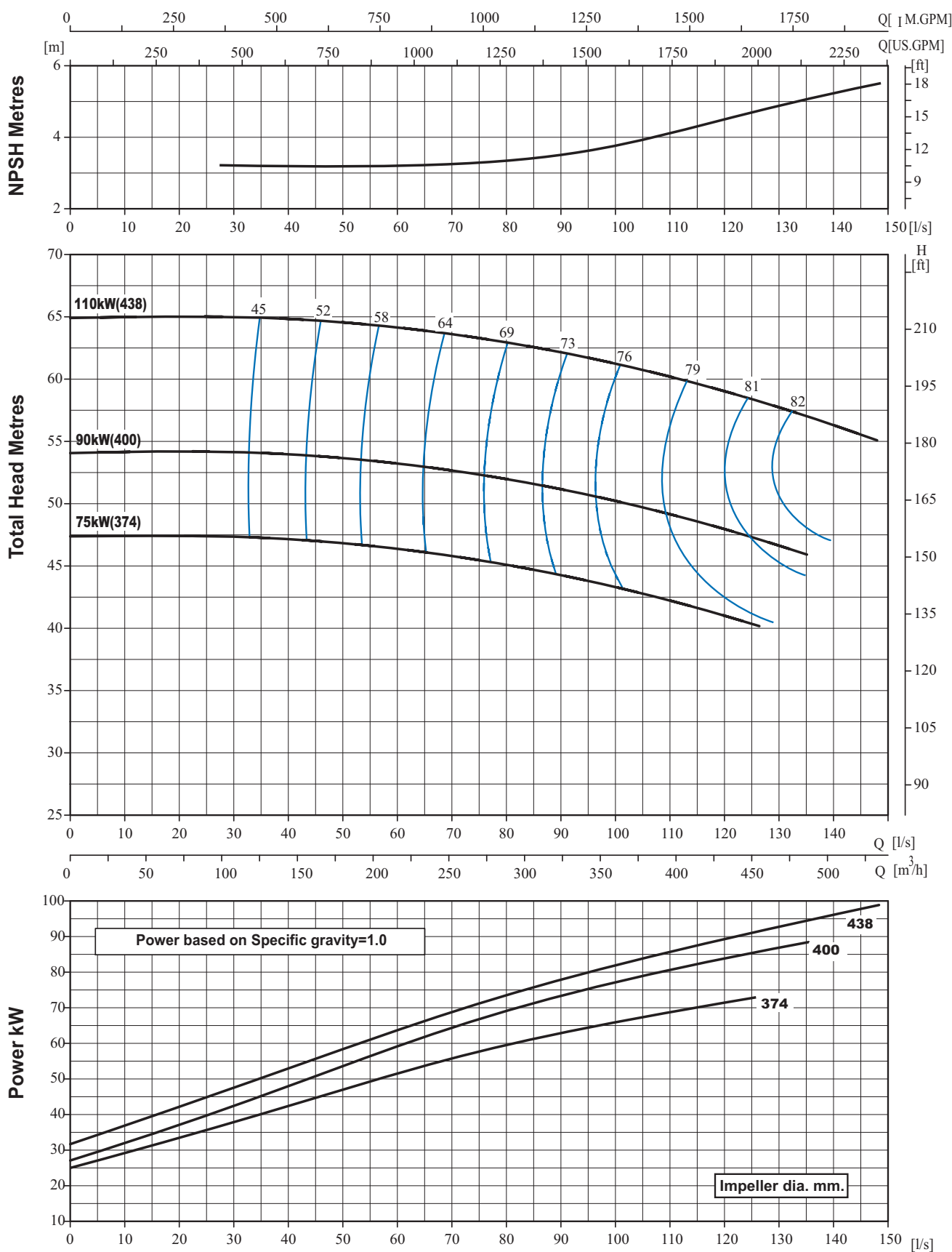
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
150	125	16 bar	1480	NS 150-125-400



Data based on cold water

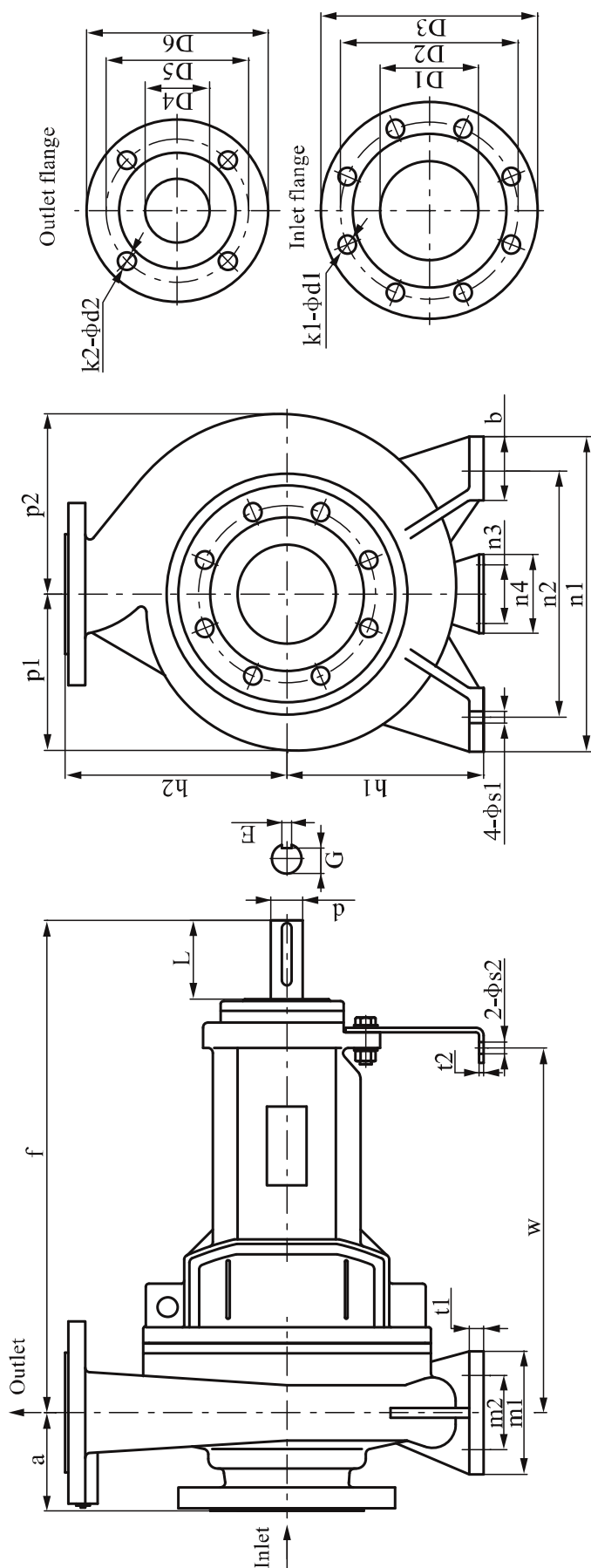
SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
200	150	16 bar	1480	NS 200-150-315

4 POLE



Data based on cold water

SUCTION DIAMETER	DISCHARGE DIAMETER	MAX PRESSURE	SPEED	PUMP MODEL
200	150	16 bar	1480	NS 200-150-400



Pump dimension table

No.	Model	Pump size							Installation dimension										
		a	f	h1	h2	b	p1	p2	m1	m2	n1	n2	n3	n4	t1	t2	w	s1	s2
1	50-32-160	80	385	132	160	50	118	128	100	70	240	190	110	160	12	6	285	14	14
2	50-32-200	80	385	160	180	50	139	147	100	70	240	190	110	160	12	6	285	14	14
3	65-50-160	80	385	132	160	50	121	136	100	70	240	190	110	160	12	6	285	14	14
4	65-40-200	100	385	160	180	50	140	151	100	70	265	212	110	160	13	6	285	14	14
5	65-40-250	100	500	180	225	65	166	176	125	95	320	250	110	160	14	6	370	14	14
6	65-40-315	125	500	200	250	65	194	200	125	95	345	280	110	160	16	6	370	14	14
7	80-65-160	100	385	160	180	50	124	143	100	70	265	212	110	160	13	6	285	14	14
8	80-50-200	100	385	160	200	52	147	161	100	70	265	212	110	160	13	6	285	14	14
9	80-50-250	125	500	180	225	65	167	179	125	95	320	250	110	160	15	6	370	14	14
10	80-50-315	125	500	225	280	65	204	215	125	95	345	280	110	160	18	6	370	14	14
11	100-65-200	100	500	180	225	65	159	183	125	95	320	250	110	160	14	6	370	14	14
12	100-65-250	125	500	200	250	80	180	201	160	120	360	280	110	160	16	6	370	18	14
13	100-65-315	125	530	225	280	80	210	228	160	120	400	315	110	160	18	6	370	18	14
14	100-80-160	100	500	160	200	65	132	160	125	95	280	212	110	160	14	6	370	14	14
15	125-80-400	125	530	280	355	80	261	279	160	120	435	355	110	160	20	6	370	18	14
16	125-100-200	125	500	200	280	80	175	210	160	120	360	280	110	160	17	6	370	18	14
17	125-100-250	140	530	225	280	80	193	225	160	120	400	315	110	160	18	6	370	18	14
18	125-100-315	140	530	250	315	80	224	250	160	120	400	315	110	160	19	6	370	18	14
19	125-100-400	140	530	280	355	100	265	287	200	150	500	400	110	160	20	6	370	18	14
20	150-125-250	140	530	250	355	80	204	244	160	120	400	315	110	160	19	6	370	18	14
21	150-125-315	140	530	280	355	100	236	271	200	150	500	400	110	160	20	6	370	22	14
22	150-125-400	140	530	315	400	100	273	301	200	150	500	400	110	160	21	6	370	22	14
23	200-150-315	160	670	315	400	82	255	304	200	150	515	450	140	180	25	10	500	22	18
24	200-150-400	160	670	315	450	82	291	330	200	150	515	450	140	180	25	10	500	22	18

To be continued

No.	Model	Inlet flange size					Outlet flange size					Size of pump shaft extention				Weight (kg)
		D1	D2	D3	k1	d1	D4	D5	D6	k2	d2	D	L	E	G	
1	50-32-160	50	125	165	4	18	32	100	140	4	18	24	50	8	20	40
2	50-32-200	50	125	165	4	18	32	100	140	4	18	24	50	8	20	48
3	65-50-160	65	145	185	4	18	50	125	165	4	18	24	50	8	20	42
4	65-40-200	65	145	185	4	18	40	110	150	4	18	24	50	8	20	50
5	65-40-250	65	145	185	4	18	40	110	150	4	18	32	80	10	27	72
6	65-40-315	65	145	185	4	18	40	110	150	4	18	32	80	10	27	82
7	80-65-160	80	160	200	8	18	65	145	185	4	18	24	50	8	20	48
8	80-50-200	80	160	200	8	18	50	125	165	4	18	24	50	8	20	54
9	80-50-250	80	160	200	8	18	50	125	165	4	18	32	80	10	27	75
10	80-50-315	80	160	200	8	18	50	125	165	4	18	32	80	10	27	90
11	100-65-200	100	180	220	8	18	65	145	185	4	18	32	80	10	27	73
12	100-65-250	100	180	220	8	18	65	145	185	4	18	32	80	10	27	82
13	100-65-315	100	180	220	8	18	65	145	185	4	18	42	110	12	37	120
14	100-80-160	100	180	220	8	18	80	160	200	8	18	32	80	10	27	70
15	125-80-400	125	210	250	8	18	80	160	200	8	18	42	110	12	37	168
16	125-100-200	125	210	250	8	18	100	180	220	8	18	32	80	10	27	88
17	125-100-250	125	210	250	8	18	100	180	220	8	18	42	110	12	37	130
18	125-100-315	125	210	250	8	18	100	180	220	8	18	42	110	12	37	138
19	125-100-400	125	210	250	8	18	100	180	220	8	18	42	110	12	37	178
20	150-125-250	150	240	285	8	22	125	210	250	8	18	42	106	12	37	134
21	150-125-315	150	240	285	8	22	125	210	250	8	18	42	106	12	37	167
22	150-125-400	150	240	285	8	22	125	210	250	8	18	42	106	12	37	186
23	200-150-315	200	295	340	12	22	150	240	285	8	22	60	110	18	53	228
24	200-150-400	200	295	340	12	22	150	240	285	8	22	60	110	18	53	285



42024 Castelnovo di Sotto (Reggio Emilia) - Italy - Via S. Biagio, 59
tel. +39.0522 487011 - fax (Italy) +39.0522 487019 - fax (World) +39.0522 683070
www.speroni.it - speroni@speroni.it