

VSC SERIES 50 Hz

SS Cast Submersible Pump 12"



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NOTE: Franklin Electric S.r.l. reserves the right to amend specification without prior notice

For the most up-to-date product information, visit franklinwater.eu.

OVERVIEW SS CAST VSC SUBMERSIBLE PUMPS

APPLICATIONS

- Municipal water works
- Water distribution and pressure boosting
- Irrigation and sprinkler systems, water treatment plants, filtration and reverse osmosis
- Industrial cooling and processing
- Mining industry, drainage and dewatering
- Fire-fighting equipment
- Fountains
- Petrochemistry, Offshore
- General Industry

FEATURES

- 12": VSC 360 - 420 - 420A
- Cast Stainless Steel impellers and diffusers for high corrosion and abrasion resistance
- Robust, compact and reliable design
- Built-in check valve to protect the pump against water hammer
- The hydraulic design is such to enhance the overall efficiency thus reducing energy consumption and making the pumping systems more cost effective

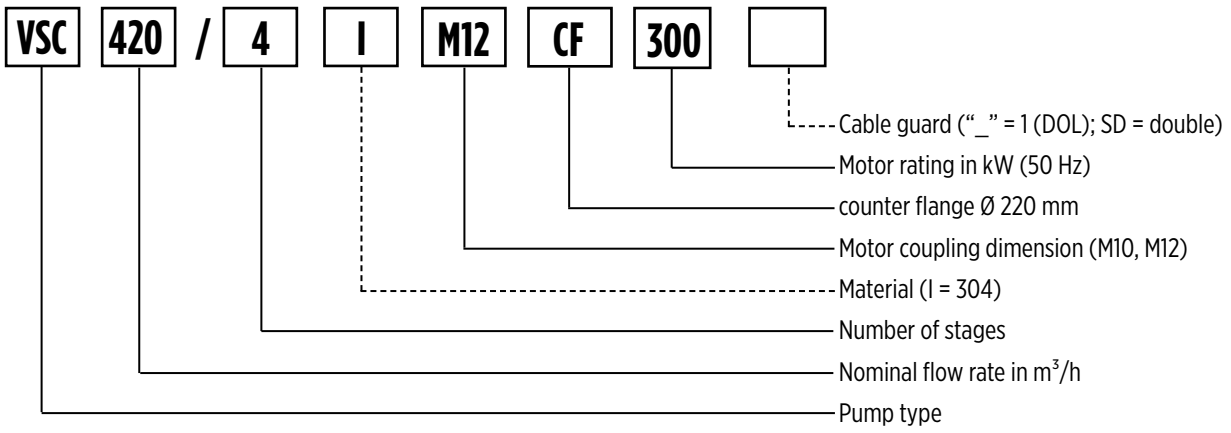
SPECIFICATION

- Flow:
 - 12": up to 540 m³/h at 50 Hz
- Head:
 - 12": up to 337 m at 50 Hz
- Maximum allowable amount of sand: 100 g/m³
- Water temperature: from -5 °C to +60 °C
- Rotation: counter clockwise when looking into the discharge
- Operation in vertical or horizontal position
- The hydraulic characteristics are guaranteed, according to ISO standard 9906:2012, grade 3B

OPTIONS

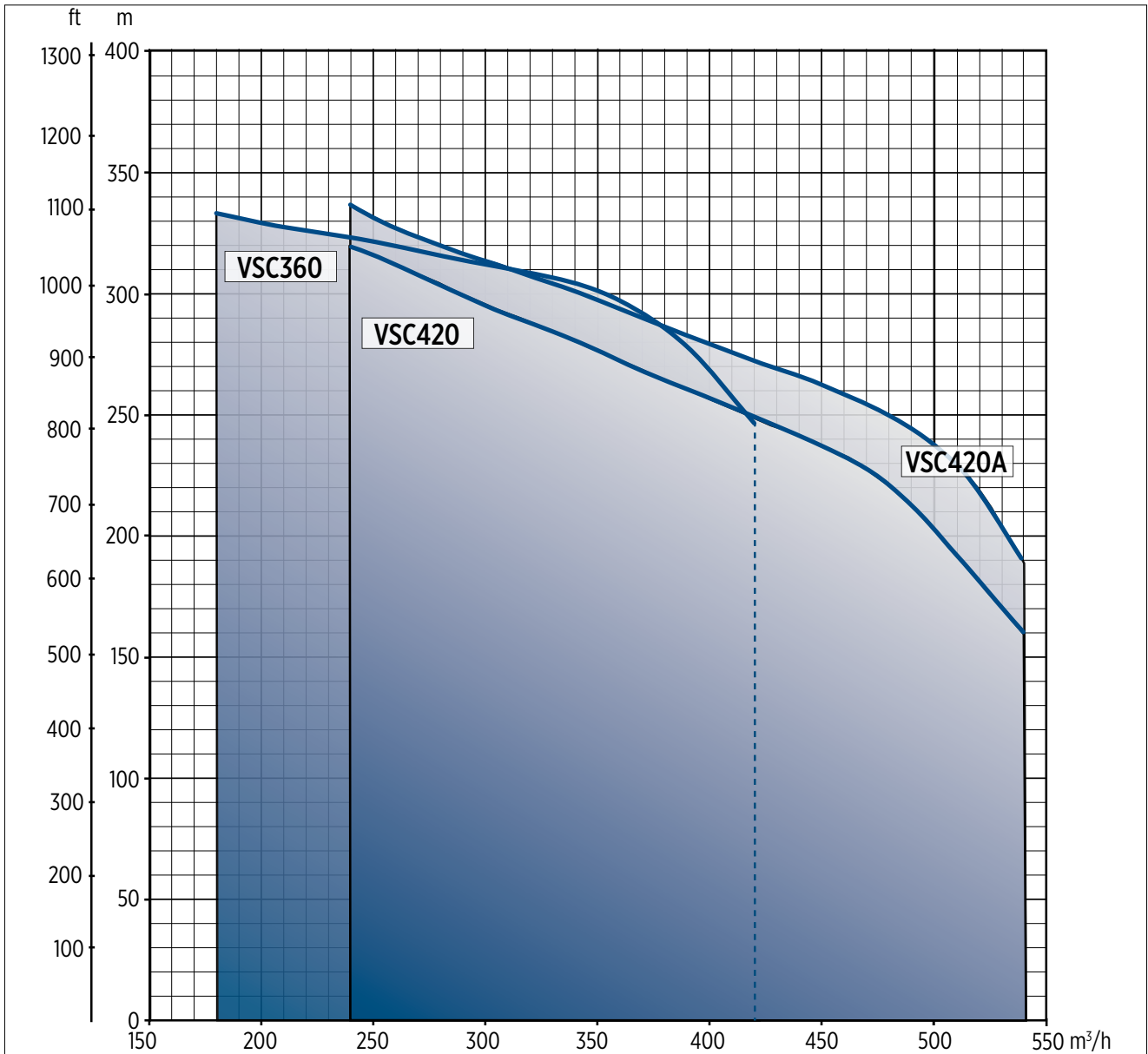
- YΔ version with second cable guard
- counter flange

PUMP IDENTIFICATION CODE



VSC SERIES 12"

FAMILY CURVES VSC 360 - 420 - 420 A



HYDRAULIC PERFORMANCE TABLE AT 50 HZ - VSC 360

Pump model type	Rated Power		Q = DELIVERY									
			m ³ /h 0	180	210	240	270	300	330	360	390	420
	[kW]	[HP]	l/min 0	3000	3500	4000	4500	5000	5500	6000	6500	7000
			H = TOTAL HEAD METERS COLUMN OF WATER [m]									
VSC360/1	67	90	61	55	54	54	53	51	51	49	46	41
VSC360/2	130	174	122	110	108	107	106	103	102	99	93	83
VSC360/3	185	250	183	165	163	161	158	154	153	148	139	124
VSC360/4	250	340	244	220	217	215	211	205	204	198	186	166
VSC360/5	350	469	305	276	271	269	264	257	255	247	232	207
VSC360/6	400	536	366	331	325	322	317	308	305	296	278	248

HYDRAULIC PERFORMANCE TABLE AT 50 HZ - VSC 420

Pump model type	Rated Power		Q = DELIVERY											
			m ³ /h 0	240	270	300	330	360	390	420	450	480	510	540
	[kW]	[HP]	l/min 0	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000
			H = TOTAL HEAD METERS COLUMN OF WATER [m]											
VSC420/1	67	90	57	53	51	49	47	45	43	42	40	36	31	27
VSC420/2	130	174	114	106	103	99	95	91	87	83	79	72	61	53
VSC420/3	185	250	171	160	154	148	142	136	130	125	119	108	92	80
VSC420/4	250	340	228	213	205	197	190	182	174	166	158	144	122	106
VSC420/5	300	402	286	266	257	247	237	227	217	208	198	180	153	133
VSC420/6*	400	536	343	319	308	296	284	272	260	249	237	216	184	160

HYDRAULIC PERFORMANCE TABLE AT 50 HZ - VSC 420 A

Pump model type	Rated Power		Q = DELIVERY											
			m ³ /h 0	240	270	300	330	360	390	420	450	480	510	540
	[kW]	[HP]	l/min 0	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000
			H = TOTAL HEAD METERS COLUMN OF WATER [m]											
VSC420A/1	67	102	60	56	53	52	51	49	47	45	44	42	39	32
VSC420A/2	130	174	120	112	107	105	103	99	95	91	88	83	77	63
VSC420A/3	220	300	180	169	160	157	154	148	142	136	132	125	116	95
VSC420A/4	300	402	240	225	213	209	205	198	190	182	176	166	154	126
VSC420A/5	350	469	300	281	267	262	257	247	237	227	220	208	193	158
VSC420A/6*	400	536	360	337	320	314	308	296	284	272	264	249	231	190

* with 80 kN thrust bearing

TECHNICAL DATA - VSC 360

WITH ENCAPSULATED MOTOR

Pump model type	Motor			Dimensions [mm]*				Weight [kg]		
	[kW]	[HP]	Size	Ø [mm]	L1 [mm]	L2 [mm]	Lt [mm]	Pump	Motor	Electro pump
VSC360/1	75	102	M8	197	770	1496	2266	80	240	320
VSC360/2	130	174	M8	197	1000	2179	3179	105	420	525

*lengths without counter flange

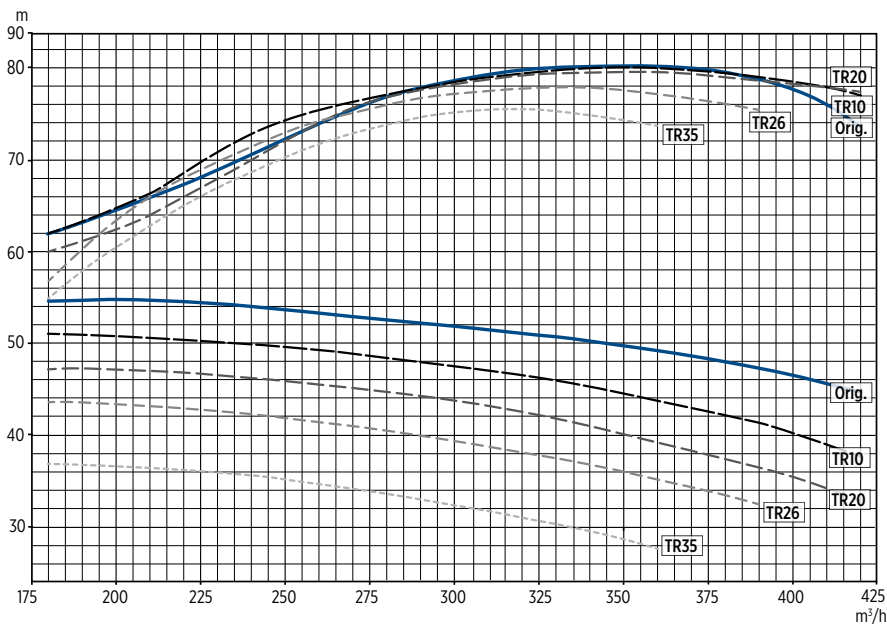
WITH REWINDABLE MOTOR

Pump model type	Motor			Dimensions [mm]*				Weight [kg]		
	[kW]	[HP]	Size	Ø [mm]	L1 [mm]	L2 [mm]	Lt [mm]	Pump	Motor	Electro pump
VSC360/1	67	90	M8	194	770	1460	2230	80	198	278
VSC360/2	130	174	M10	235	1000	1659	2659	105	362	467
VSC360/3	185	250	M10	235	1230	1919	3149	127	449	576
VSC360/4	250	335	M12	286	1460	1893	3353	150	663	813
VSC360/5	350	469	M12	286	1690	2143	3833	175	769	944
VSC360/6	400	536	M12	286	1920	2193	4113	200	794	994

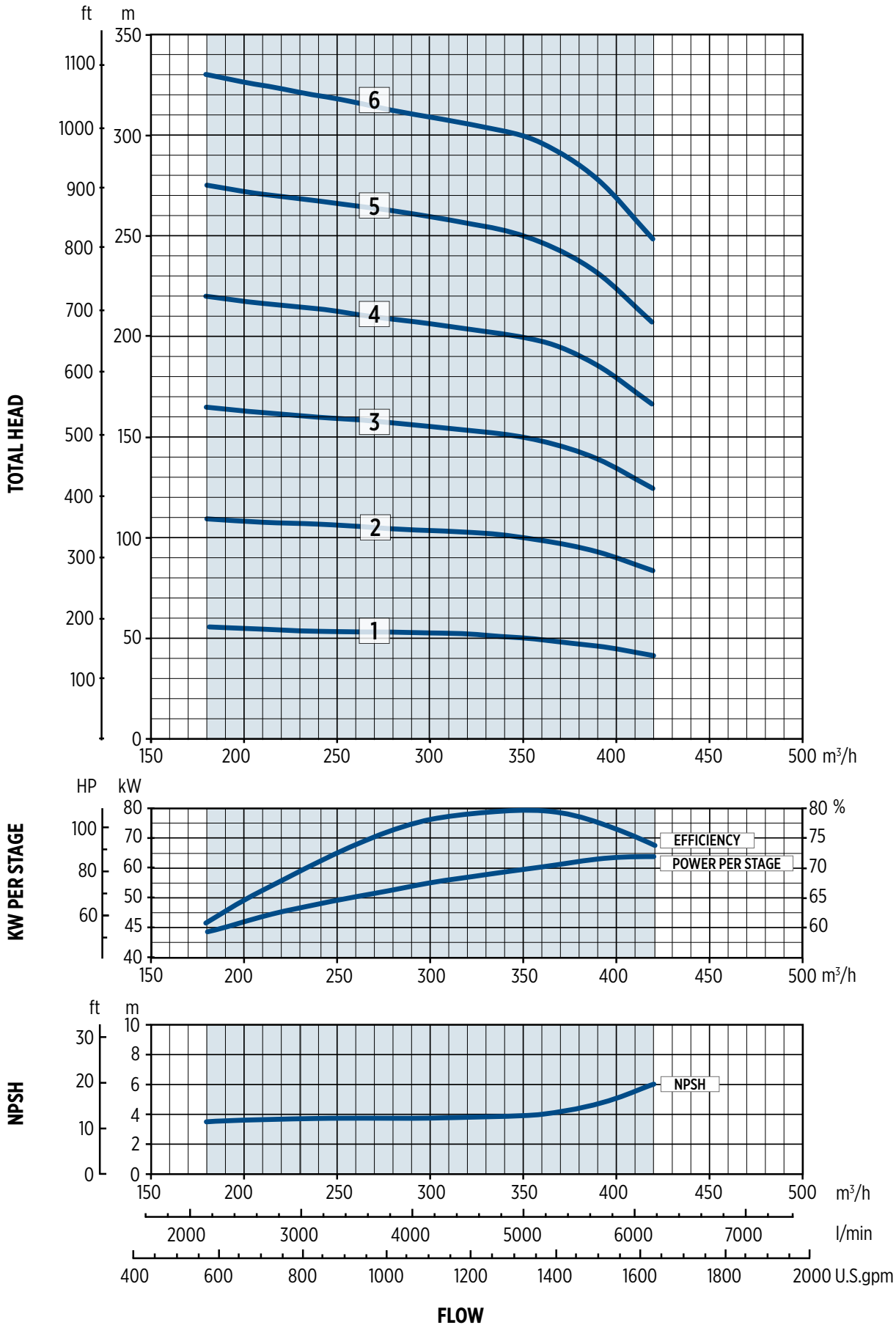
*lengths without counter flange

DRIMMED PERFORMANCE DATA

	P _{MAX} [kW]	0	180	210	240	270	300	330	360	390	420
Orig.	64.3	61.0	55.1	54.2	53.7	52.8	51.3	50.9	49.4	46.4	41.4
TR10	56.1	54.1	51.2	50.7	50.3	49.4	47.4	46.4	43.5	41.5	37.5
TR20	49.4	48.1	46.7	46.3	45.8	44.4	42.9	41.5	39.5	36.5	33.1
TR26	44.3	45.1	43.7	43.3	42.4	41.5	38.5	37.0	34.6	31.6	
TR35	36.9	40.2	37.3	36.4	36.0	34.5	32.6	31.1	27.6		



HYDRAULIC PERFORMANCE CURVE AT 50 HZ - VSC 360



6102/20_EN_096 VSC

TECHNICAL DATA - VSC 420

WITH ENCAPSULATED MOTOR

Pump model type	Motor			Dimensions [mm]*				Weight [kg]		
	[kW]	[HP]	Size	Ø [mm]	L1 [mm]	L2 [mm]	Lt [mm]	Pump	Motor	Electro pump
VSC420/1	75	102	M8	197	770	1496	2266	80	240	320
VSC420/2	130	174	M8	197	1000	2179	3179	105	420	525

*lengths without counter flange

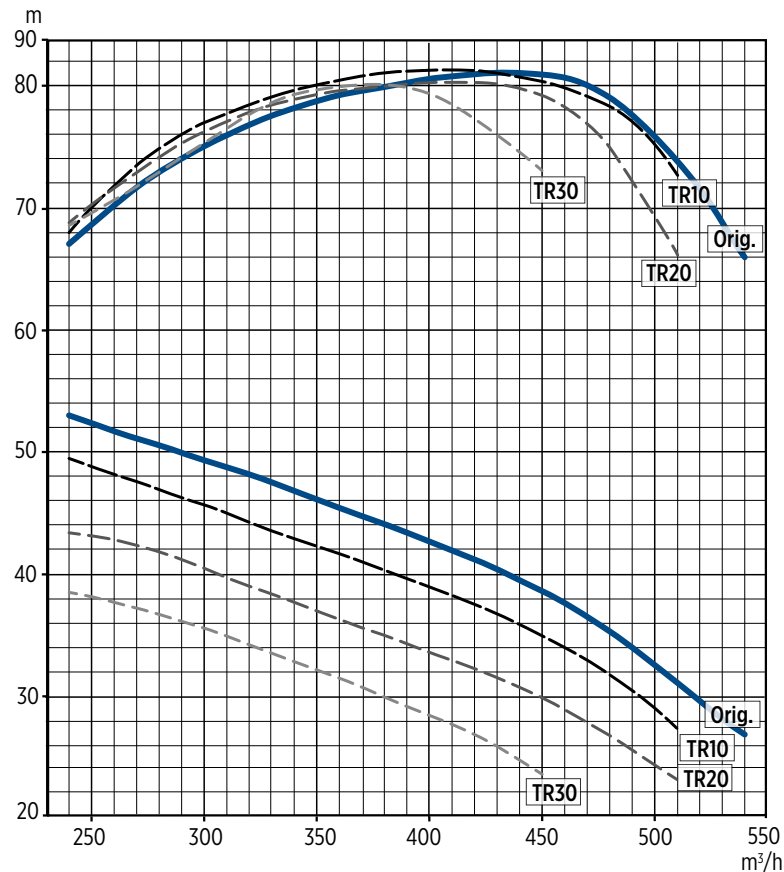
WITH REWINDABLE MOTOR

Pump model type	Motor			Dimensions [mm]*				Weight [kg]		
	[kW]	[HP]	Size	Ø [mm]	L1 [mm]	L2 [mm]	Lt [mm]	Pump	Motor	Electro pump
VSC420/1	67	90	M8	194	770	1470	2240	80	198	278
VSC420/2	130	174	M10	235	1000	1659	2659	105	362	467
VSC420/3	185	250	M10	235	1230	1919	3149	127	449	576
VSC420/4	250	340	M12	286	1460	1893	3353	150	663	813
VSC420/5	300	402	M12	286	1690	2043	3733	175	726	901
VSC420/6**	400	536	M12	286	1920	2193	4113	200	794	994

*lengths without counter flange, ** with 80 kN thrust bearing

DRIMMED PERFORMANCE DATA

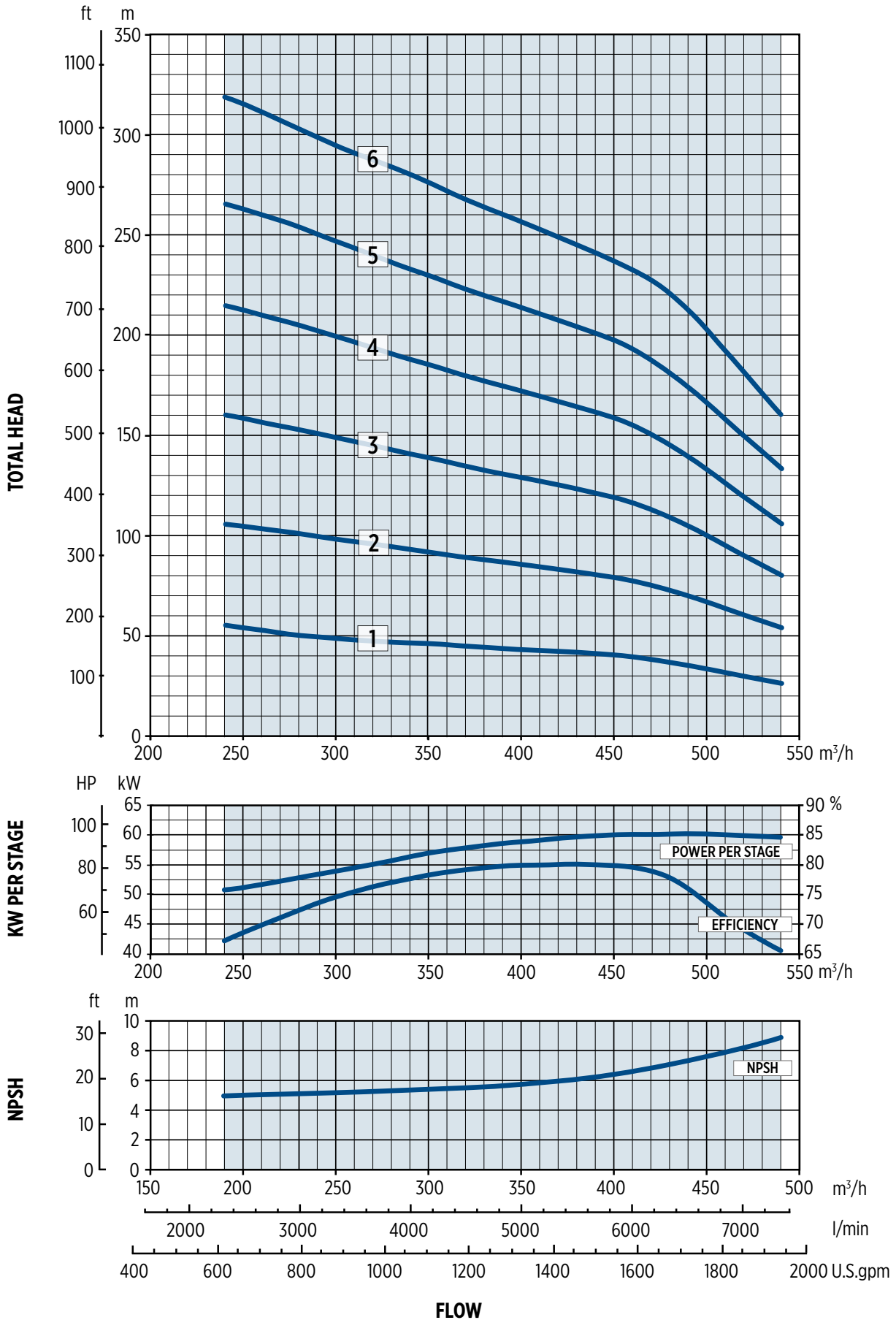
	P _{MAX} [kW]	0	240	270	300	330	360	390	420	450	480	510	540
Orig.	60.2	57.1	53.2	51.3	49.3	47.4	45.4	43.4	41.5	39.5	36.0	30.6	26.6
TR10	53.6	52.2	49.3	47.4	45.4	43.4	41.5	39.5	37.5	35.1	31.6	27.6	
TR20	45.6	46.3	43.4	42.4	40.5	38.0	36.0	34.1	32.1	29.1	25.7		
TR30	39.8	42.3	38.4	37.0	35.5	33.6	31.6	29.1	26.7	23.7			



8 x Ø 14 mm
Ø 266 mm
Ø 220 mm



HYDRAULIC PERFORMANCE CURVE AT 50 HZ - VSC 420



61020_03_EN_2019 VSC 420

TECHNICAL DATA - VSC 420A

WITH ENCAPSULATED MOTOR

Pump model type	Motor			Dimensions [mm]*				Weight [kg]		
	[kW]	[HP]	Size	Ø [mm]	L1 [mm]	L2 [mm]	Lt [mm]	Pump	Motor	Electro pump
VSC420/1	75	102	M8	197	770	1496	2266	80	240	320
VSC420/2	150	200	M8	197	1000	2179	3179	105	420	525

*lengths without counter flange

WITH REWINDABLE MOTOR

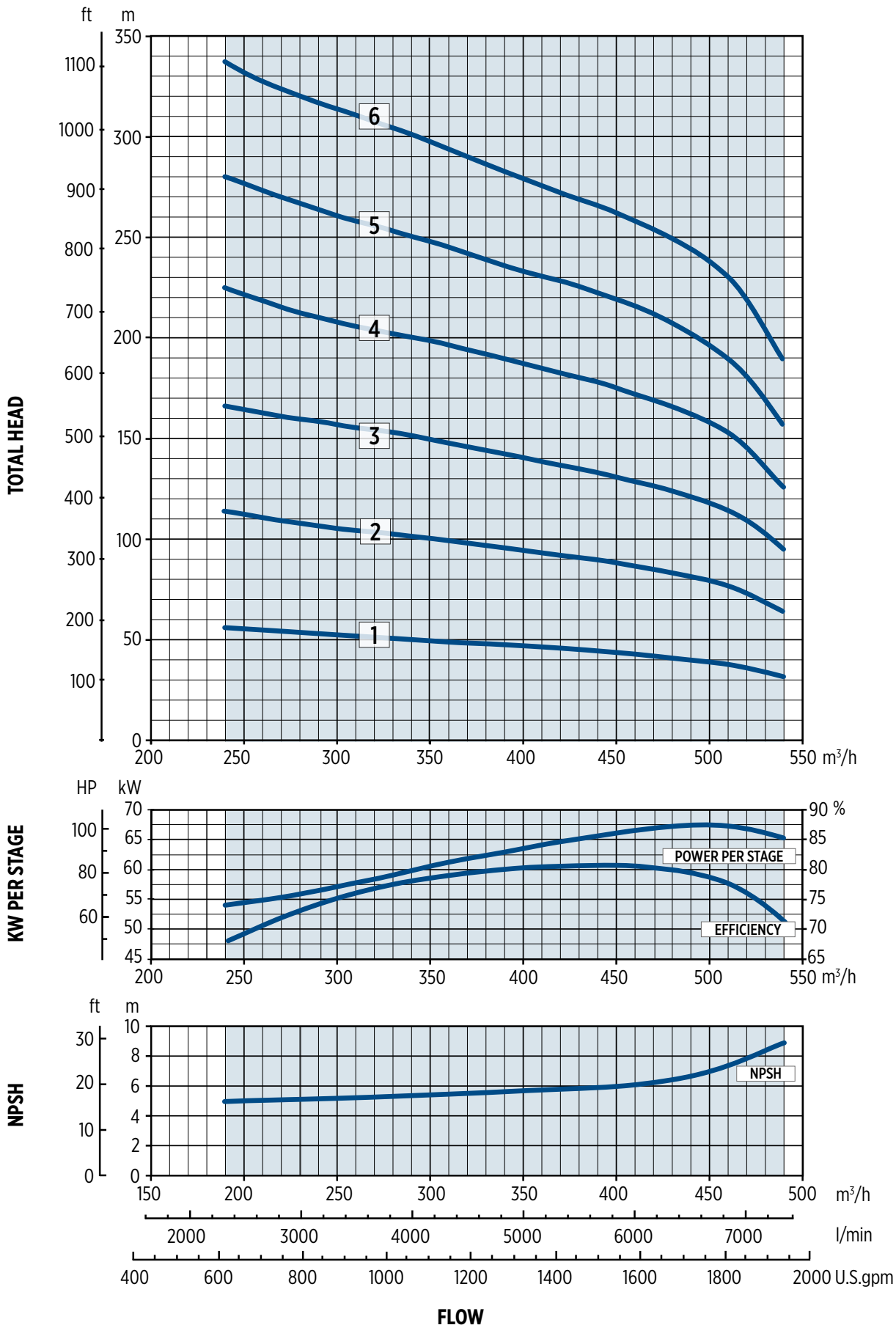
Pump model type	Motor			Dimensions [mm]*				Weight [kg]		
	[kW]	[HP]	Size	Ø [mm]	L1 [mm]	L2 [mm]	Lt [mm]	Pump	Motor	Electro pump
VSC420/1	67	102	M8	194	770	1470	2240	80	198	278
VSC420/2	130	174	M10	235	1000	1659	2659	105	362	467
VSC420/3	220	300	M12	286	1230	1893	3123	127	663	790
VSC420/4	300	402	M12	286	1460	2043	3503	150	726	876
VSC420/5	350	469	M12	286	1690	2143	3833	175	769	944
VSC420/6**	400	536	M12	286	1690	2193	3883	200	794	994

*lengths without counter flange, ** with 80 kN thrust bearing

8 x Ø 14 mm
Ø 266 mm Ø 220 mm



HYDRAULIC PERFORMANCE CURVE AT 50 HZ - VSC 420A



VSC 420A_EN_03/2019

EFFICIENCY

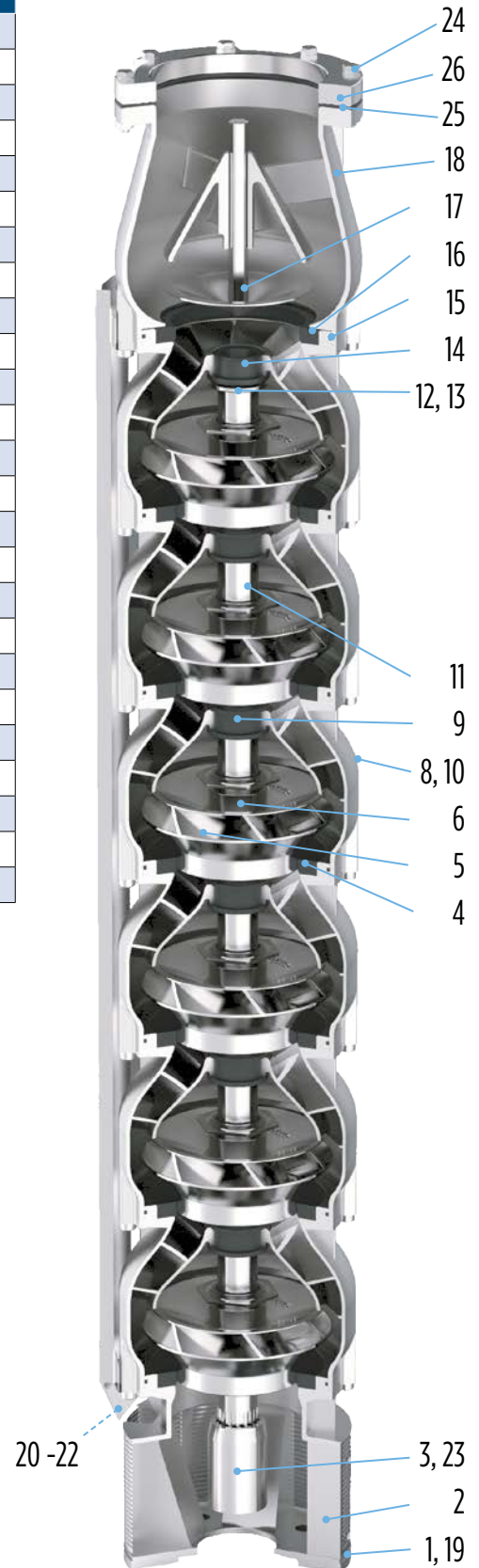
MATERIALS / FLUIDS COMPATIBILITY

VSC 360/420

Pos.	Description	Material
		I Version
1	SUCTION STRAINER	AISI 304
2	MOTOR FLANGE	AISI 304
3	COUPLING	DUPLEX
4	NECK RING	TEFLON
5	IMPELLER	AISI 304
6	SPLIT CONE	AISI 304
8	DIFFUSER	AISI 304
9	BEARING BUSH	Rubber NBR
10	DIFFUSER SCREW SET (8 pieces)	AISI 304
11	SHAFT	DUPLEX
12	UP-THRUST DISC**	AISI 304
13	UP-THRUST DISC SCREW**	AISI 304
14	UP-THRUST WASHER	PTFE+25% CARB
15	O-RING	Rubber NBR
16	GASKET VALVE	Rubber NBR
17	VALVE	AISI 304
18	DISCHARGE	AISI 304
19	SUCTION STRAINER SCREW SET (2 pieces)	AISI 304
20	CABLE GUARD FLANGE BOTTOM	AISI 304
21	CABLE GUARD FLANGE TOP	AISI 304
22	CABLE GUARD	AISI 304
23	COUPLING SCREW	AISI 304
24*	COUNTER FLANGE SCREW (8 pieces)	AISI 304
25*	COUNTER FLANGE SEAL	Rubber NBR
26*	COUNTER FLANGE	AISI 304

*component available on request as option

** components 12 and 13 not included in pumps with 2 stages





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