

## VS 78

### TABLE OF HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	R Vers.	RATED POWER		Q = DELIVERY										
				m <sup>3</sup> /h 0	30	40	50	60	70	80	90	100	110	120
				l/min 0	500	666	833	1000	1166	1333	1500	1666	1833	2000
[kW]		[HP]		H = TOTAL HEAD METERS COLUMN OF WATER [m]										
VS 78/2		7.5	10	40	38	35	32	30	29	24	20	18		
VS 78/3		11	15	60	55	51	49	45	41	36	30	24		
VS 78/4		15	20	80	74	70	65	60	55	49	41	32		
VS 78/5		18.5	25	99	92	88	81	75	69	60	51	41		
VS 78/6	●	22	30	119	110	104	98	89	81	71	60	49		
VS 78/7	●	30	40	139	130	122	114	105	96	85	72	58		
VS 78/8	●	30	40	159	149	140	131	120	110	98	82	67		
VS 78/9	●	30	40	180	168	158	147	135	123	110	92	73		
VS 78/10	●	37	50	197	183	172	160	148	134	119	100	79		
VS 78/11	●	37	50	216	202	190	176	162	148	130	110	87		
VS 78/12	●	45	60	248	232	219	205	189	172	153	131	106		
VS 78/13	●	55	75	269	252	237	221	205	188	168	142	115		
VS 78/14	●	55	75	289	271	256	239	220	201	180	153	123		
VS 78/15	●	55	75	309	290	274	255	235	215	192	165	132		
VS 78/16	●	75	100	332	311	294	275	252	231	208	177	143		
VS 78/17	●	75	100	352	330	312	291	269	246	220	188	151		
VS 78/18	●	75	100	373	350	330	309	284	260	232	198	161		
VS 78/19	●	75	100	394	370	348	325	300	275	245	210	170		
VS 78/20	●	75	100	415	389	368	343	316	290	259	220	179		
VS 78/21	●	75	100	436	409	385	360	331	304	271	231	189		
VS 78/22	●	93	125	457	428	404	378	347	320	284	243	198		
VS 78/23	●	93	125	478	446	421	394	362	332	297	254	207		
VS 78/24	●	93	125	498	467	440	411	379	348	310	265	216		

● = Pump available in R (AISI 904L) version

## VS 97

### TABLE OF HYDRAULIC PERFORMANCE AT 50 Hz

Pump model	R Vers.	RATED POWER		Q = DELIVERY										
				m <sup>3</sup> /h 0	30	40	50	60	70	80	90	100	110	120
				l/min 0	500	666	833	1000	1166	1333	1500	1666	1833	2000
[kW]		[HP]		H = TOTAL HEAD METERS COLUMN OF WATER [m]										
VS 97/2		9.3	12.5	42	41	39	36	32	30	29	26	22	19	15
VS 97/3		15	20	63	60	58	53	49	45	42	39	33	29	21
VS 97/4		18.5	25	84	81	77	71	65	60	57	51	45	38	30
VS 97/5	●	22	30	104	101	95	88	80	74	69.5	62	55	46	37
VS 97/6	●	30	40	127	122	115	107	98	90	84	77	68	57	46
VS 97/7	●	30	40	148	143	135	123	115	106	99	90	79	68	52
VS 97/8	●	37	50	168	160	151	140	130	120	110	100	88.5	74	59
VS 97/9	●	37	50	188	180	170	158	147	133	124	113	99	83	66
VS 97/10	●	45	60	219	211	200	185	172	159	148	137	120	103	82
VS 97/11	●	55	75	241	232	220	204	189	175	162	149	132	113	91
VS 97/12	●	55	75	262	253	240	221	207	191	178	162	143	123	99
VS 97/13	●	55	75	284	275	260	241	223	207	191	177	155	132	108
VS 97/14	●	75	100	309	297	282	261	242	226	209	191	169	145	121
VS 97/15	●	75	100	330	319	303	280	260	240	222	205	181	155	130
VS 97/16	●	75	100	352	340	322	299	279	258	238	220	194	165	139
VS 97/17	●	75	100	373	361	342	319	294	272	252	232	207	176	147
VS 97/18	●	93	125	398	382	363	337	313	289	268	247	219	188	155
VS 97/19	●	93	125	419	403	382	354	330	305	282	260	230	197	164
VS 97/20	●	93	125	440	423	404	372	347	320	298	273	241	208	171
VS 97/21	●	93	125	462	445	422	391	363	337	312	289	255	219	171
VS 97/22		110	150	484	466	442	410	381	353	328	301	267	229	190
VS 97/23		110	150	507	487	463	430	399	370	341	315	279	239	199

● = Pump available in R (AISI 904L) version



# VS 78 50 Hz

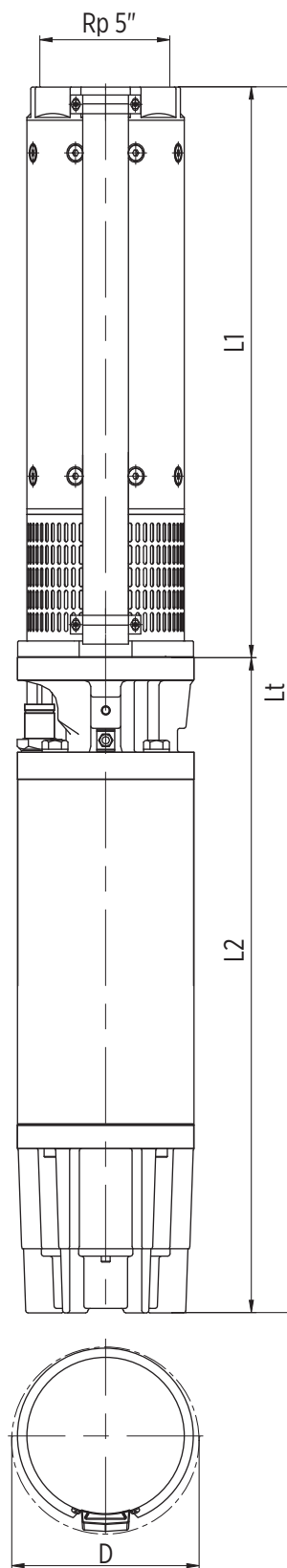
## TECHNICAL DATA - PUMPS WITH ENCAPSULATED MOTOR

Pump model	Motor			Dimensions					Pump weight [Kg]
	Type	[kW]	[HP]	L1 [mm]	L2 [mm]	Lt [mm]	D [mm]		
							1 cable	2 cable	
VS 78/2	E6	7.5	10	644	646	1290	188	194	77
VS 78/3	E6	11	15	770	711	1481	188	194	87
VS 78/4	E6	15	20	896	776	1672	188	194	57
VS 78/5	E6	18.5	25	1022	841.5	1863.5	188	194	109
VS 78/6	E6	22	30	1148	906.5	2054.5	188	194	120
VS 78/7	E6	30	40	1274	1036.5	2310.5	188	194	140
VS 78/8	E6	30	40	1400	1036.5	2436.5	188	194	145
VS 78/9	E6	30	40	1526	1036.5	2562.5	188	194	150
VS 78/10	E6	37	50	1652	1405	3057	188	194	206
VS 78/11	E6	37	50	1778	1405	3183	188	194	211
VS 78/12	E8	45	60	1909	1077	2986	200	202	254
VS 78/13	E8	55	75	2035	1394	3429	200	202	259
VS 78/14	E8	55	75	2161	1394	3555	200	202	294
VS 78/15	E8	55	75	2287	1394	3681	200	202	299
VS 78/16	E8	75	100	2413	1496	3909	200	202	342
VS 78/17	E8	75	100	2539	1496	4035	200	202	347
VS 78/18	E8	75	100	2665	1496	4161	200	202	352
VS 78/19	E8	75	100	2791	1496	4287	200	202	357
VS 78/20	E8	75	100	2917	1496	4413	200	202	361
VS 78/21	E8	75	100	3043	1496	4539	200	202	366
VS 78/22	E8	93	125	3169	1748	4917	200	202	449
VS 78/23	E8	93	125	3295	1748	5043	200	202	454
VS 78/24	E8	93	125	3421	1748	5169	200	202	459

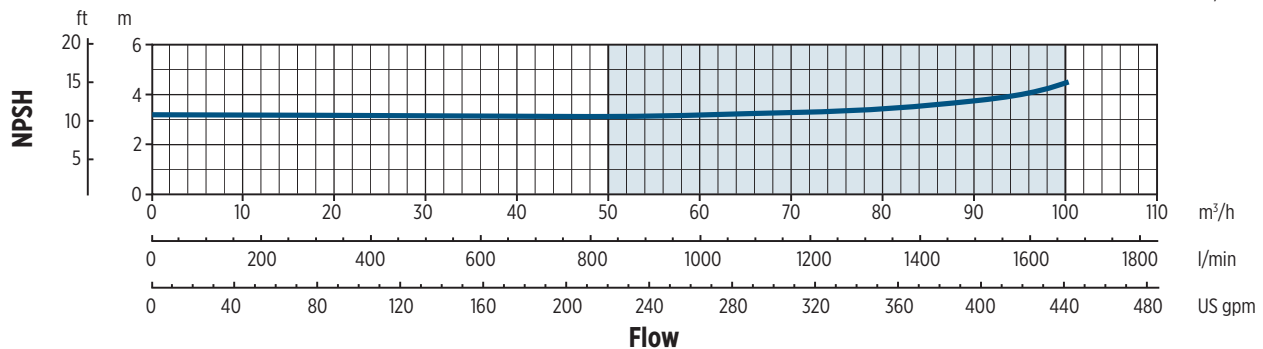
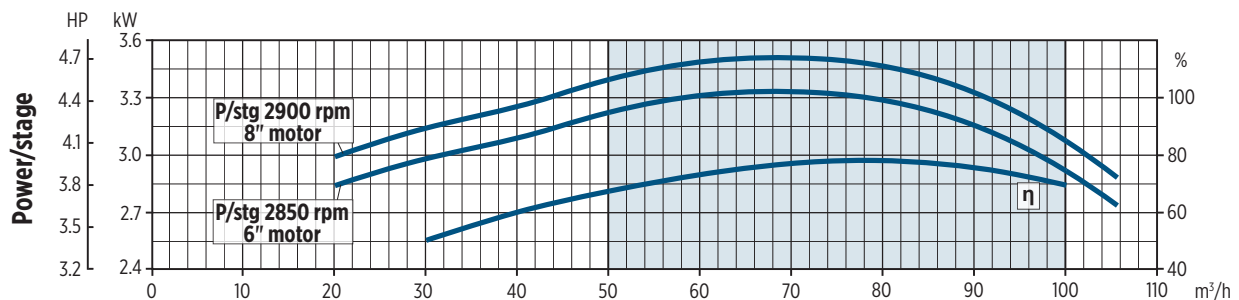
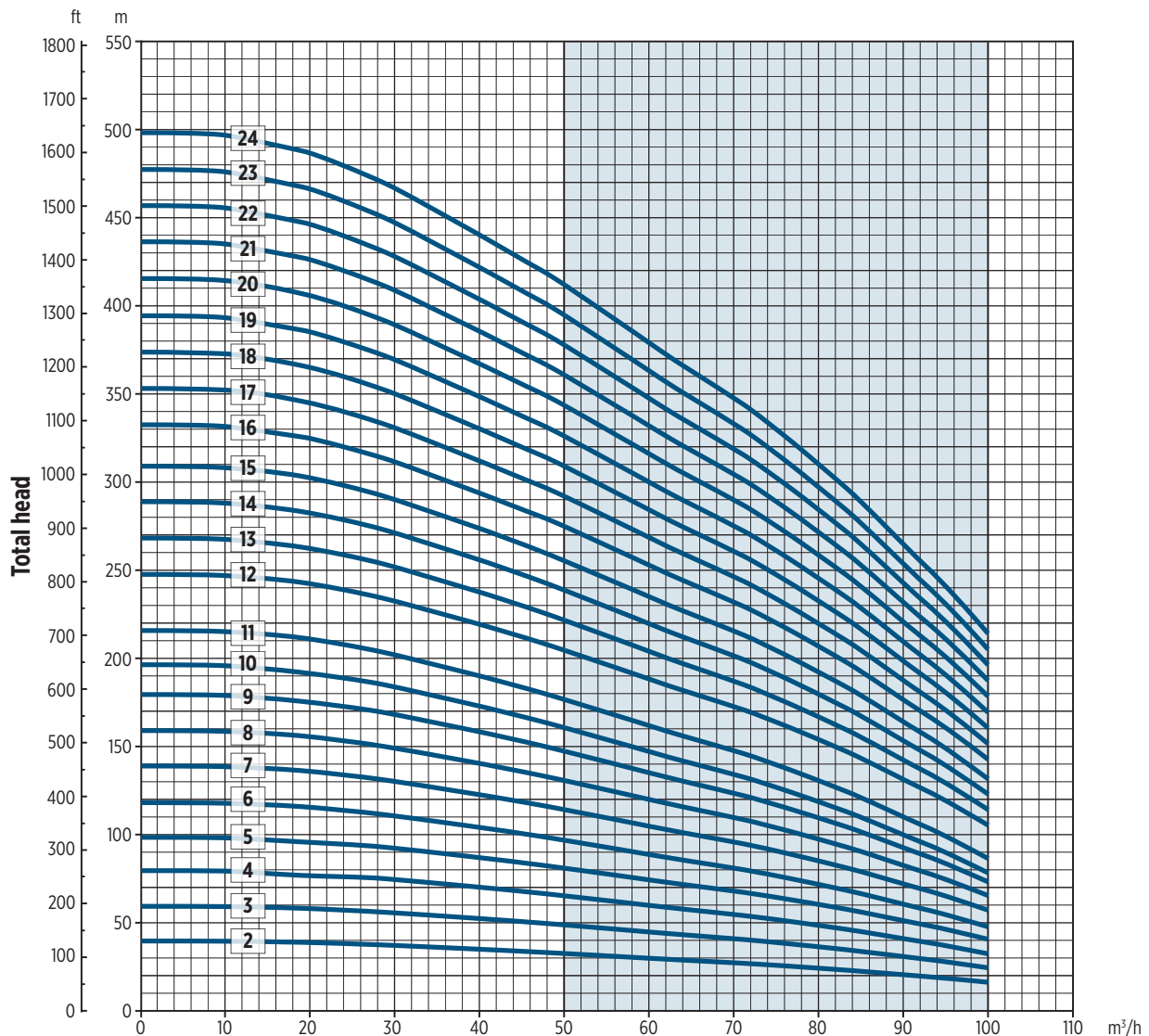
## TECHNICAL DATA - PUMPS WITH REWINDABLE MOTOR

Pump model	R vers.	Motor			Dimensions					Pump weight [Kg]
		Type	[kW]	[HP]	L1 [mm]	L2 [mm]	Lt [mm]	D [mm]		
								1 cable	2 cable	
VS 78/2		6RW	7.5	10	644	719	1363	188	194	82
VS 78/3		6RW	11	15	770	779	1549	188	194	92
VS 78/4		6RW	15	20	896	874	1770	188	194	96
VS 78/5		6RW	18.5	25	1022	919	1941	188	194	116
VS 78/6	●	8RW	30	40	1022	1140	2162	197	199.5	190
		6RW	22	30	1148	1009	2157	188	194	130
VS 78/7	●	8RW	30	40	1148	1140	2288	197	199.5	193
		6RW	26	35	1274	1114	2388	188	194	146
VS 78/8	●	8RW	30	40	1274	1140	2288	197	199.5	198
		6RW	30	40	1400	1214	2614	188	194	161
VS 78/9	●	8RW	30	40	1400	1140	2540	197	199.5	203
		6RW	30	40	1526	1214	2740	188	194	166
VS 78/10	●	8RW	30	40	1526	1140	2666	197	199.5	208
		6RW	37	50	1652	1294	2946	188	194	178
VS 78/11	●	8RW	37	50	1652	1140	2792	197	199.5	213
		6RW	37	50	1778	1294	3072	188	194	183
VS 78/12	●	8RW	37	50	1778	1140	2918	197	199.5	218
		6RW	45	60	1909	1230	3139	197	199.5	238
VS 78/13	●	8RW	52	70	2035	1340	3375	197	199.5	266
VS 78/14	●	8RW	52	70	2161	1340	3501	197	199.5	271
VS 78/15	●	8RW	55	75	2287	1340	3627	197	199.5	276
VS 78/16	●	8RW	60	80	2413	1470	3883	197	199.5	300
VS 78/17	●	8RW	67	90	2539	1470	4009	197	199.5	305
VS 78/18	●	8RW	67	90	2665	1470	4135	197	199.5	310
VS 78/19	●	8RW	75	90	2791	1560	4351	197	199.5	332
VS 78/20	●	8RW	75	100	2917	1560	4477	197	199.5	336
VS 78/21	●	8RW	75	100	3043	1560	4603	197	199.5	341
VS 78/22	●	8RW	83	110	3169	1560	4729	197	199.5	378
VS 78/23	●	8RW	83	110	3295	1560	4855	197	199.5	383
VS 78/24	●	8RW	93	125	3421	1740	5161	197	199.5	388

● = Pump available in R (AISI 904L) version



# PERFORMANCE CURVES AT 50 Hz

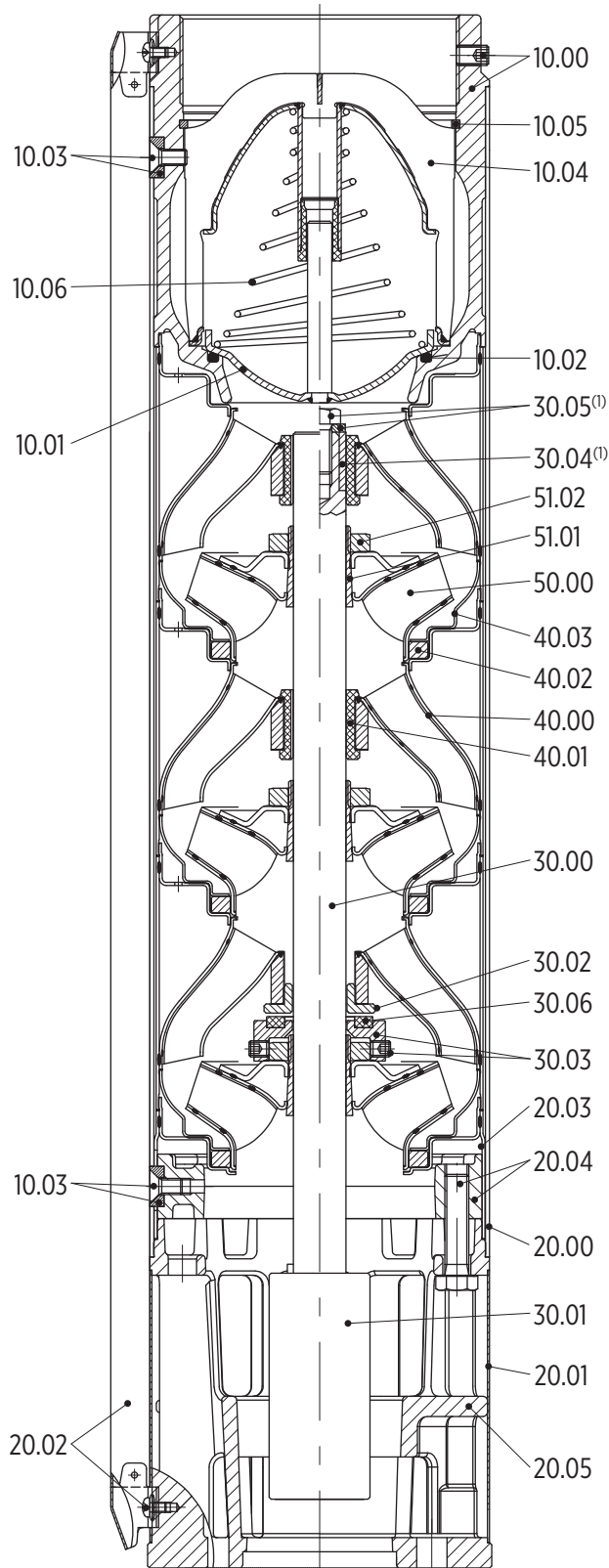


The hydraulic characteristics are guaranteed, according to ISO standard 9906:2012, grade 3B



# VS 78-97

## PUMP SECTION AND LIST OF MAIN COMPONENTS



Ref. N.	Description
10.00	Discharge head
10.01	Valve
10.02	Sealing O-ring
10.03	Outer case locking nuts
10.04	Valve support
10.05	Seeger ring
10.06	Spring
20.00	Outer case
20.01	Suction strainer
20.02	Cable guard
20.03	Initial spacer
20.04	Flange
20.05	Motor adapter
30.00	Pump shaft
30.01	Coupling
30.02	Upper up-thrust washer
30.03	Lower up-thrust washer
30.04 <sup>(1)</sup>	Upper journal sleeve
30.05 <sup>(1)</sup>	Screw and washer
30.06	Up-thrust ring
40.00	Diffuser
40.01	Secondary bearing bush
40.02	Floating neck ring
40.03	Flange clamping neck ring
50.00	Impeller
51.01	Split cone
51.02	Split cone nut

*1) only for types with more than 8 stages*

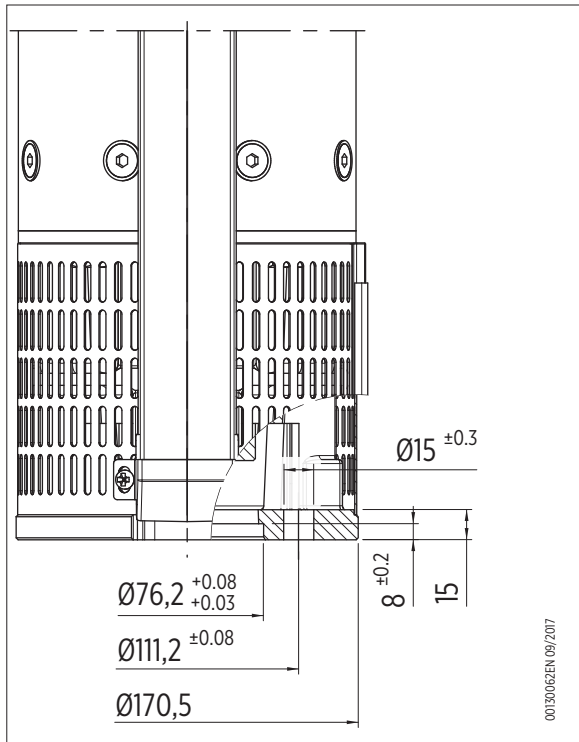
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# VS 78-97 MOTOR ADAPTER AND DIMENSIONS

## APPENDIX B

### 4" MOTOR ADAPTER FOR I AND N VERSION



### 6" MOTOR ADAPTER FOR I, N AND R VERSION

