



# 6" STAINLESS STEEL SUBMERSIBLE PUMPS

## APPLICATION

- 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

## FEATURES

- Fabricated stainless steel impellers and diffusers for corrosion resistance
- Heavy duty stainless steel structure for improved stiffness and ensuring the permanent alignment of all components and thus increased run time and trouble-free operation.
- PTFE floating neck ring, ceramic guide journal sleeve (tungsten-carbide on request) and Nitrile rubber fluted bearing to ensure durability against wear for long-lasting constant performances and product reliability
- Compact, reliable and suited to operate in horizontal position
- Built-in check valve to protect the pump against water hammer risk
- Radial models with double reinforcement rings and mix-flow models longer than 3 m are equipped with tungsten-carbide (widia) upper journal sleeve and with an intermediate tungsten-carbide (widia) journal sleeve plus special intermediate split cone nut
- The hydraulic design is such to enhance the overall efficiency thus reducing energy consumption and making the pumping systems more cost effective

## PUMP SPECIFICATION

- Flow: up to 80 m<sup>3</sup>/h at 50 Hz
- Head: up to 700 m (70 Bar) at 50 Hz
- Water temperature range: Minimum: -5 °C  
Maximum: +60 °C for I (AISI304) version / +90 °C for N (AISI316) and R (904L) versions
- Maximum allowable amount of sand 100 g/m<sup>3</sup>
- Rotation: counter clockwise when looking into the discharge
- Pump can work continuously in vertical or horizontal position

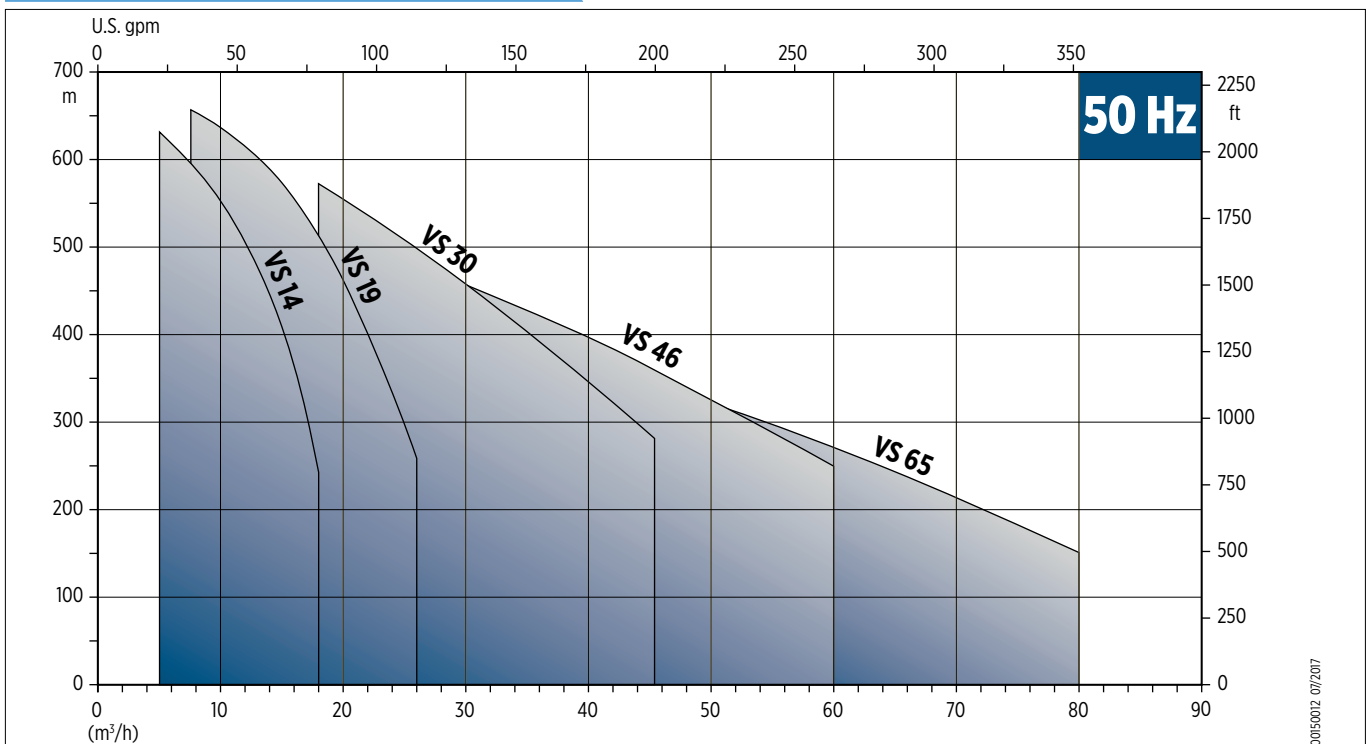
## MOTOR SPECIFICATION

- Motor adapter in compliance with NEMA standard
- For more information consult the product catalog of Submersible motors

### AVAILABLE ON REQUEST

- Pump material: 316 Stainless steel (N) version (DIN/EN 1.4401)  
904L (R) version (DIN/EN 1.4539)  
See specified material variant in "Materials/Fluids compatibility" table on page 7
- Double cable guard
- Discharge heads: Rp 2" and Rp 3" for VS 14 and VS 19  
Rp 4" for VS 30-46-65 I and N versions
- Motor adapter: 4" for I and N version  
8" for I and N version
- Tungsten-carbide guide journal sleeve
- High temperature version (up to 90 °C)
- Bearings bush in FKM

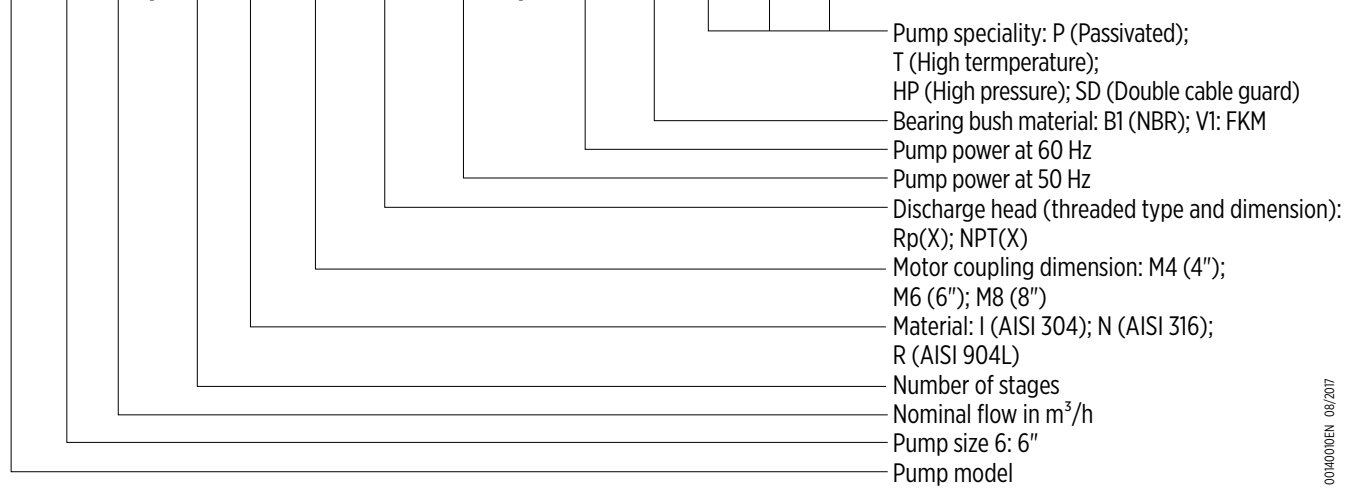
### FAMILY CURVES





## PUMP IDENTIFICATION CODE

VS 6 78 / 15 I M8 Rp5 5505 / 9306 B1 P HP SD



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## PUMPS AND MOTORS RANGE

Type	Versions			Motor power range [kW]	
	I EN 1.4301	N EN 1.4401	R EN 1.4539	I e N	R
	VS14	○	○	-	4 ÷ 30
VS19	○	○	-	4 ÷ 37	-
VS25	○	○	-	4 ÷ 45	-
VS30	○	○	●	3 ÷ 55	4 ÷ 37
VS46	○	○	●	3.7 ÷ 55	4 ÷ 37
VS65	○	○	●	3.7 ÷ 55	4 ÷ 37

○ = Version available    ● = Version available only with 6" motor coupling



**MATERIALS/FLUIDS COMPATIBILITY**

Pos.	Parts description	Type	Material					
			I Version		N Version		R Version	
			AISI	DIN / EN	AISI	DIN / EN	AISI	DIN / EN
10.00	Discharge head	Stainless steel	304	1.4301	316	1.4401	904L	1.4517
10.01 10.04 10.05	Valve	Stainless steel	316	1.4401	316	1.4401	2205/904L	1.4462/1.4460
10.02	Sealing O-ring	-	NBR		HNBR		HNBR	
10.03	Outer case locking nuts	Stainless steel	316	1.4401	316	1.4401	2205	1.4462
20.00	Outer case	Stainless steel	304	1.4301	316	1.4401	2205	1.4462
20.01	Suction strainer	Stainless steel	316	1.4401	316	1.4401	904L	1.4539
20.02	Cable guard	Stainless steel	316	1.4401	316	1.4401	904L	1.4539
20.03	Initial spacer	Stainless steel	304	1.4301	316	1.4401	904L	1.4539
20.04	Flange and screws	Stainless steel	304	1.4301	316	1.4401	904L	1.4517/1.4539
20.05	Motor adapter	Stainless steel	304	1.4301	316	1.4401	904L	1.4517
30.00	Pump shaft	Stainless steel	431	1.4057	316/329	1.4401/1.4460	329	1.4460
30.01	Coupling	Stainless steel	431/329	1.4057/1.4460	316/329	1.4401/1.4460	904L/329	1.4462/1.4539/ 1.4460
30.02 30.03	Upper / Lower up-thrust washer	Stainless steel	316	1.4401	316	1.4401	329	1.4460
30.04	Upper journal sleeve	Stainless steel with ceramic coating	329	1.4460	329	1.4460	329	1.4460
30.05	Screw and washer	Stainless steel	316	1.4401	316	1.4401	904L/329	1.4539/1.4460
30.06	Up-thrust ring	PTFE + Graphite	-	-	-	-	-	-
30.07 30.08	Lower / Upper spacer	Stainless steel	316	1.4401	316	1.4401	-	-
40.00	Diffuser	Stainless steel	304	1.4301	316	1.4401	904L	1.4539
40.01	Secondary bearing bush	-	NBR		HNBR		HNBR	
40.02	Floating neck ring	PTFE	-	-	-	-	-	-
40.03	Flange clamping neck ring	Stainless steel	304	1.4301	316	1.4401	904L	1.4539
40.04	Bearing bush	-	NBR		HNBR		HNBR	
40.05	Last - int. diffuser / Upper bearing guide	Stainless steel	316	1.4401	316	1.4401	904L	1.4539
40.06 40.07 40.08	First / Last diffuser	Stainless steel	316	1.4401	316	1.4401	-	-
50.00 50.05	Impeller / Wear ring	Stainless steel	304	1.4301	316	1.4401	904L	1.4539
51.01	Split cone / Impeller spacer	Stainless steel	316	1.4401	316	1.4401	329	1.4460
51.02 51.03	Split cone nut / Intermediate cone nut	Stainless steel	316	1.4401	316	1.4401	329	1.4460
51.04	Up-thrust split cone nut	Stainless steel	316	1.4401	316	1.4401	329	1.4460
51.06	Intermediate impeller with screw	Stainless steel	304	1.4301	316	1.4401	904L	1.4539

# VS 46 50 Hz

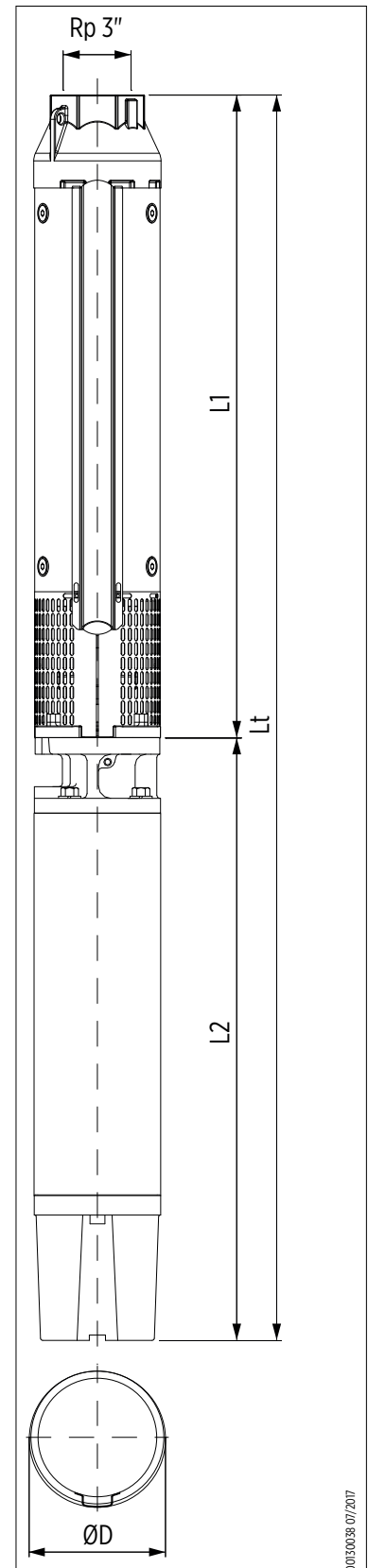
## TECHNICAL DATA - PUMPS WITH ENCAPSULATED MOTOR

Pump model	Motor			Dimensions					Pump weight [Kg]
	Type	[kW]	[HP]	L1 [mm]	L2 [mm]	Lt [mm]	D [mm]		
							1 cable	2 cable	
VS 46/2	E4	3	4	593.5	477	1070.5	142.5	-	31
VS 46/3	E4	4	5.5	707.5	543	1250.5	142.5	-	36.5
VS 46/4	E4	5.5	7.5	821.5	652.5	1474	142.5	-	45.5
VS 46/5	E4	7.5	10	935.5	730.5	1666	142.5	-	52.5
VS 46/2	E6	4	5.5	591.5	581	1172.5	143	144.5	51
VS 46/3	E6	4	5.5	705.5	581	1286.5	143	144.5	53.5
VS 46/4	E6	5.5	7.5	819.5	614.5	1434	143	144.5	60
VS 46/5	E6	7.5	10	933.5	646	1579.5	143	144.5	66.5
VS 46/6	E6	9.3	12.5	1047	678.5	1725.5	143	144.5	71.5
VS 46/7	E6	9.3	12.5	1161	678.5	1839.5	143	144.5	74
VS 46/8	E6	11	15	1275	711	1986	143	144.5	80
VS 46/9	E6	15	20	1389	776	2165	143	144.5	88.5
VS 46/10	E6	15	20	1503	776	2279	143	144.5	91
VS 46/11	E6	15	20	1617	776	2393	143	144.5	93.5
VS 46/12	E6	18.5	25	1730.5	841.5	2572	143	144.5	103
VS 46/13	E6	18.5	25	1844.5	841.5	2686	143	144.5	105.5
VS 46/14	E6	18.5	25	1958.5	841.5	2800	143	144.5	108.5
VS 46/15	E6	22	30	2072.5	906.5	2979	143	144.5	117
VS 46/16	E6	22	30	2186	906.5	3092.5	143	144.5	119.5
VS 46/17	E6	22	30	2300	906.5	3206.5	143	144.5	122
VS 46/18	E6	30	40	2414	1036.5	3450.5	143	144.5	139.5
VS 46/19	E6	30	40	2527.5	1036.5	3564	143	144.5	142
VS 46/20	E6	30	40	2641.5	1036.5	3678	143	144.5	144.5
VS 46/21	E6	30	40	2755	1036.5	3791.5	143	144.5	147
VS 46/22	E6	30	40	2869	1036.5	3905.5	143	144.5	149.5
VS 46/23	E6	30	40	2983	1036.5	4019.5	143	144.5	152.5
VS 46/24	E6	37	50	3096.5	1421.5	4518	143	144.5	209
VS 46/25	E6	37	50	3210.5	1421.5	4632	143	144.5	211.5
VS 46/26	E6	37	50	3324	1421.5	4745.5	143	144.5	214

## TECHNICAL DATA - PUMPS WITH REWINDABLE MOTOR

Pump model	Vers. R	Motor			Dimensions					Pump weight [Kg]
		Type	[kW]	[HP]	L1 [mm]	L2 [mm]	Lt [mm]	D [mm]		
								1 cable	2 cable	
VS 46/2	●	RW6	4	5.5	591.5	699	1290.5	147	147.5	61.5
VS 46/3	●	RW6	4	5.5	705.5	699	1404.5	147	147.5	64
VS 46/4	●	RW6	5.5	7.5	819.5	699	1518.5	147	147.5	67
VS 46/5	●	RW6	7.5	10	933.5	719	1652.5	147	147.5	71.5
VS 46/6	●	RW6	9.3	12.5	1047	749	1796	147	147.5	77
VS 46/7	●	RW6	9.3	12.5	1161	749	1910	147	147.5	79.5
VS 46/8	●	RW6	11	15	1275	779	2054	147	147.5	85
VS 46/9	●	RW6	13	17.5	1389	829	2218	147	147.5	93
VS 46/10	●	RW6	13	17.5	1503	829	2332	147	147.5	95.5
VS 46/11	●	RW6	15	20	1617	874	2491	147	147.5	103
VS 46/12	●	RW6	18.5	25	1730.5	919	2649.5	147	147.5	109.5
VS 46/13	●	RW6	18.5	25	1844.5	919	2763.5	147	147.5	112
VS 46/14	●	RW6	18.5	25	1958.5	919	2877.5	147	147.5	115
VS 46/15	●	RW6	22	30	2072.5	1009	3081.5	147	147.5	126.5
VS 46/16	●	RW6	22	30	2186	1009	3195	147	147.5	129
VS 46/17	●	RW6	22	30	2300	1009	3309	147	147.5	131.5
VS 46/18	●	RW6	26	35	2414	1114	3528	147	147.5	145.5
VS 46/19	●	RW6	26	35	2527.5	1114	3641.5	147	147.5	148
VS 46/20	●	RW6	30	40	2641.5	1214	3855.5	147	147.5	160.5
VS 46/21	●	RW6	30	40	2755	1214	3969	147	147.5	163
VS 46/22	●	RW6	30	40	2869	1214	4083	147	147.5	165.5
VS 46/23	●	RW6	30	40	2983	1214	4197	147	147.5	168.5
VS 46/24	●	RW6	37	50	3096.5	1294	4390.5	147	147.5	178
VS 46/25	●	RW6	37	50	3210.5	1294	4504.5	147	147.5	180.5
VS 46/26	●	RW6	37	50	3324	1294	4618	147	147.5	183

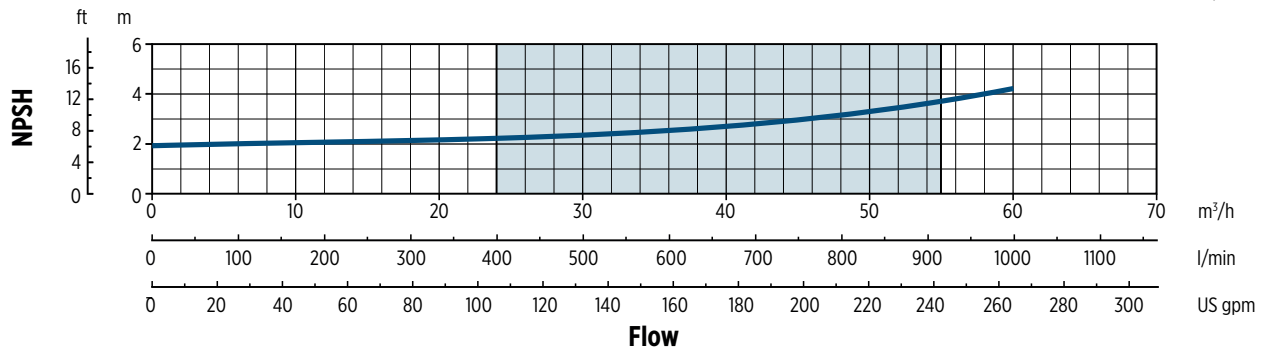
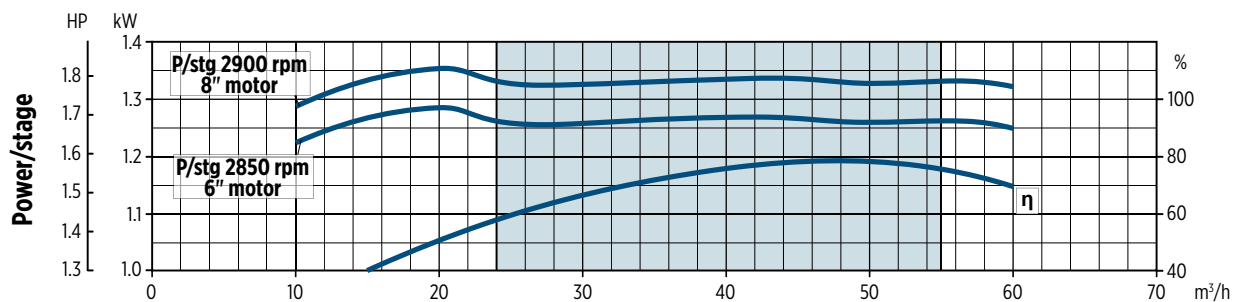
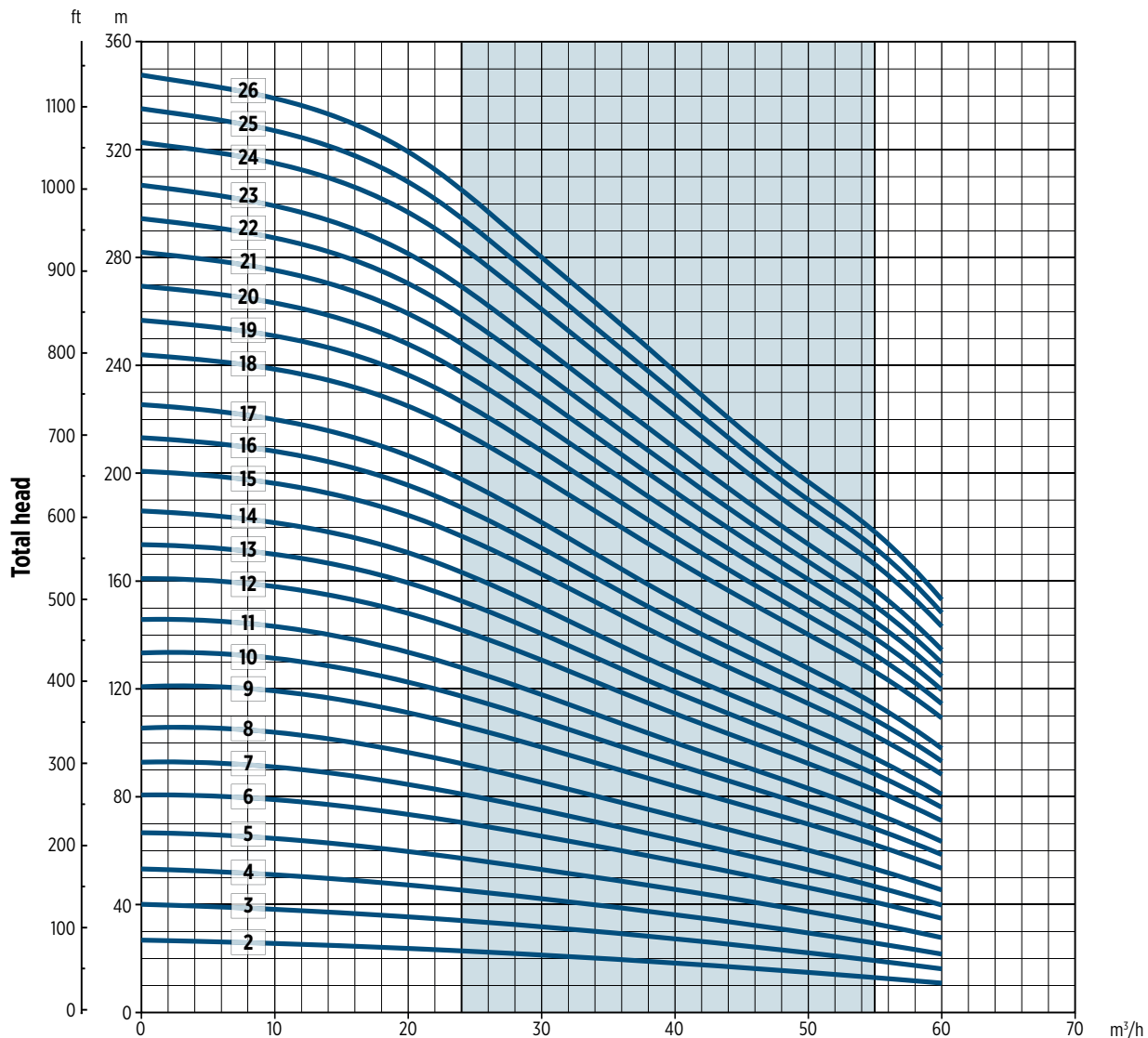
● = Pump available in R (AISI 904L) version



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# PERFORMANCE CURVES AT 50 Hz

MEI ≥ 0,40



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

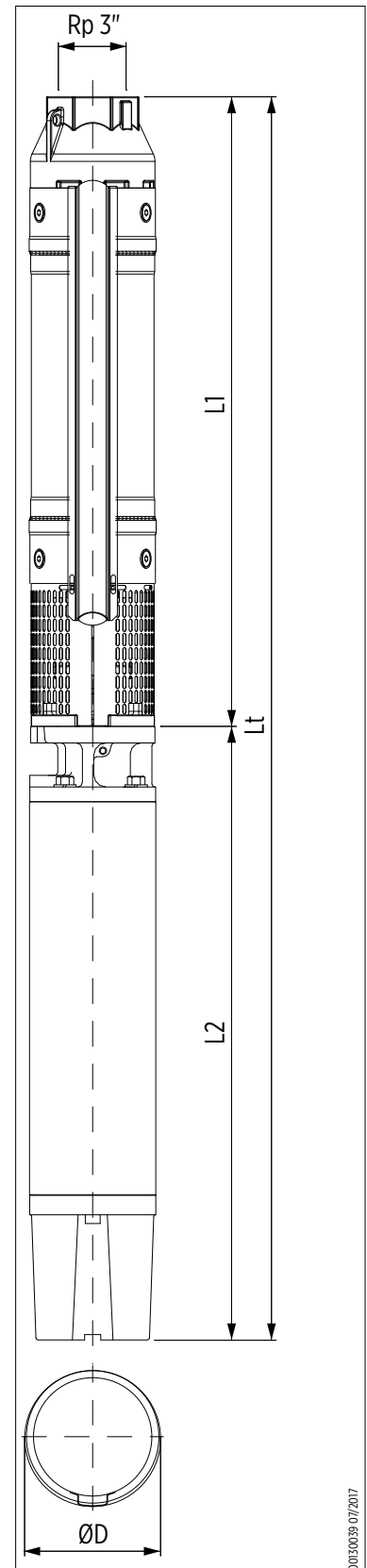
# VS 46 High Pressure 50 Hz

## 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 46/27	E6	37	50	3438	1421.5	4859.5	145	146.5	217.5
VS 46/28	E6	37	50	3552	1421.5	4973.5	145	146.5	220
VS 46/29	E6	45	60	3665.5	1574	5239.5	145	146.5	236.5
VS 46/30	E6	45	60	3779.5	1574	5353.5	145	146.5	239
VS 46/31	E6	45	60	3893.5	1574	5467.5	145	146.5	242
VS 46/32	E6	45	60	4007	1574	5581	145	146.5	244.5
VS 46/33	E6	45	60	4121	1574	5695	145	146.5	247
VS 46/34	E8	55	75	4335	1204	5539	190.5	190.5	279
VS 46/35	E8	55	75	4449	1204	5653	190.5	190.5	281.5
VS 46/36	E8	55	75	4562.5	1204	5766.5	190.5	190.5	284.5
VS 46/37	E8	55	75	4676.5	1204	5880.5	190.5	190.5	287
VS 46/38	E8	55	75	4790.5	1204	5994.5	190.5	190.5	289.5
VS 46/39	E8	55	75	4904.5	1204	6108.5	190.5	190.5	292
VS 46/40	E8	55	75	5018.5	1204	6222.5	190.5	190.5	295

## TECHNICAL DATA - PUMPS WITH REWINDABLE MOTOR

Pump model	Motor			Dimensions					Pump weight [Kg]
	Type	[kW]	[HP]	L1 [mm]	L2 [mm]	Lt [mm]	D [mm]		
							1 cable	2 cable	
VS 46/27	RW6	37	50	3438	1294	4732	149	149.5	186.5
VS 46/28	RW6	37	50	3552	1294	4846	149	149.5	189
VS 46/29	RW8	45	60	3765.5	1230	4995.5	189	189	246.5
VS 46/30	RW8	45	60	3879.5	1230	5109.5	189	189	249
VS 46/31	RW8	45	60	3993.5	1230	5223.5	189	189	252
VS 46/32	RW8	45	60	4107	1230	5337	189	189	254.5
VS 46/33	RW8	45	60	4221	1230	5451	189	189	257
VS 46/34	RW8	55	75	4335	1340	5675	189	189	283
VS 46/35	RW8	55	75	4449	1340	5789	189	189	285.5
VS 46/36	RW8	55	75	4562.5	1340	5902.5	189	189	288.5
VS 46/37	RW8	55	75	4676.5	1340	6016.5	189	189	291
VS 46/38	RW8	55	75	4790.5	1340	6130.5	189	189	293.5
VS 46/39	RW8	55	75	4904.5	1340	6244.5	189	189	296
VS 46/40	RW8	55	75	5018.5	1340	6358.5	189	189	299



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