



VSF SERIES 50 HZ

4"/6" SUBMERSIBLE PUMPS



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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.

4"/6" SUBMERSIBLE PUMPS

APPLICATION

- Municipal water works, fountains and waste water
- 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
- Water supply to and from tanks, reservoir and wells
- Lifting and distribution of a wide range of liquids
- Autoclave and cistern charge and discharge
- Turf and landscape
- Residential and farm wells and drainage
- General industry

FEATURES

- Compact, reliable and suited to operate in horizontal position
- 4": Built-in check valve to protect the pump against water hammer risk (for model 4VSF15 please contact Franklin Electric)
- 6": Built-in check valve, spring loaded for models with more than 19 stages, to protect the pump against water hammer risk
- Floating impellers to grant a better performance and longer life for the pump against abrasion (4" pumps)

GENERAL PUMP SPECIFICATION

- Pumped liquid: chemically and mechanically non aggressive
- Rotation: counter clockwise when looking into the discharge
- Pump can work continuously in vertical or horizontal position

PUMP SPECIFICATION

- Flow:
 - 4" pumps: up to 27 m³/h at 50 Hz
 - 6" pumps: up to 60 m³/h at 50 Hz
- Head:
 - 4" pumps: up to 641 m at 50 Hz
 - 6" pumps: up to 788 m at 50 Hz
- Pumped liquid: chemically and mechanically non aggressive
- Max water temperature: 4" pumps: 45 °C; 6" pumps: 30 °C
- Maximum allowable amount of sand:
 - 4" pumps: 250 g/m³; 6" pumps: 60 g/m³
- Maximum pump diameter (including cable guard):
 - 4" pumps: 98 mm; 6" pumps: 140 mm
- Outlet diameter:
 - 4" pumps: 1" ¼ for VSF 1-2-3-4, 2" for VSF 6-8-12-15
 - 6" pumps: 3"
- Motor support:
 - 4" pumps: supplied for connection to 4" motor
 - 6" pumps: supplied for connection to 4" motor up to 5.5 kW; from 7.5 kW to 6" motor
- Rotation: counter clockwise when looking into the discharge
- Pump can work continuously in vertical or horizontal position

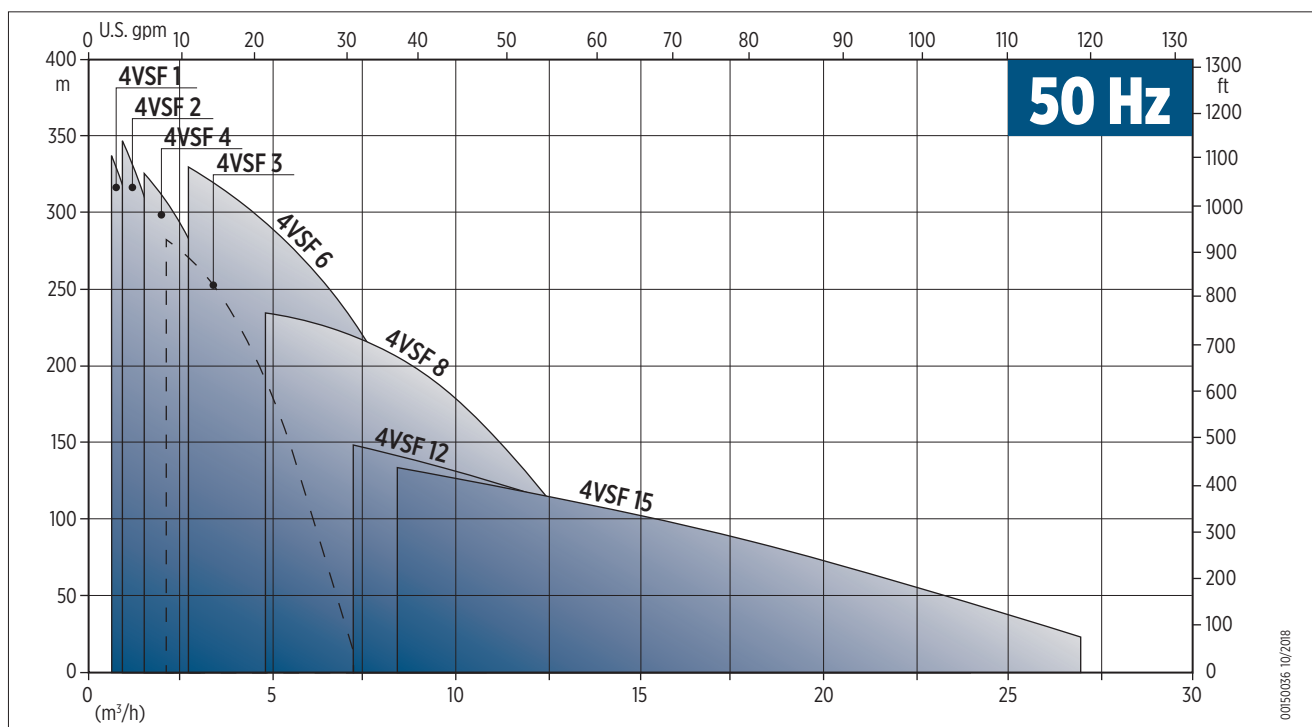
MOTOR SPECIFICATION

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

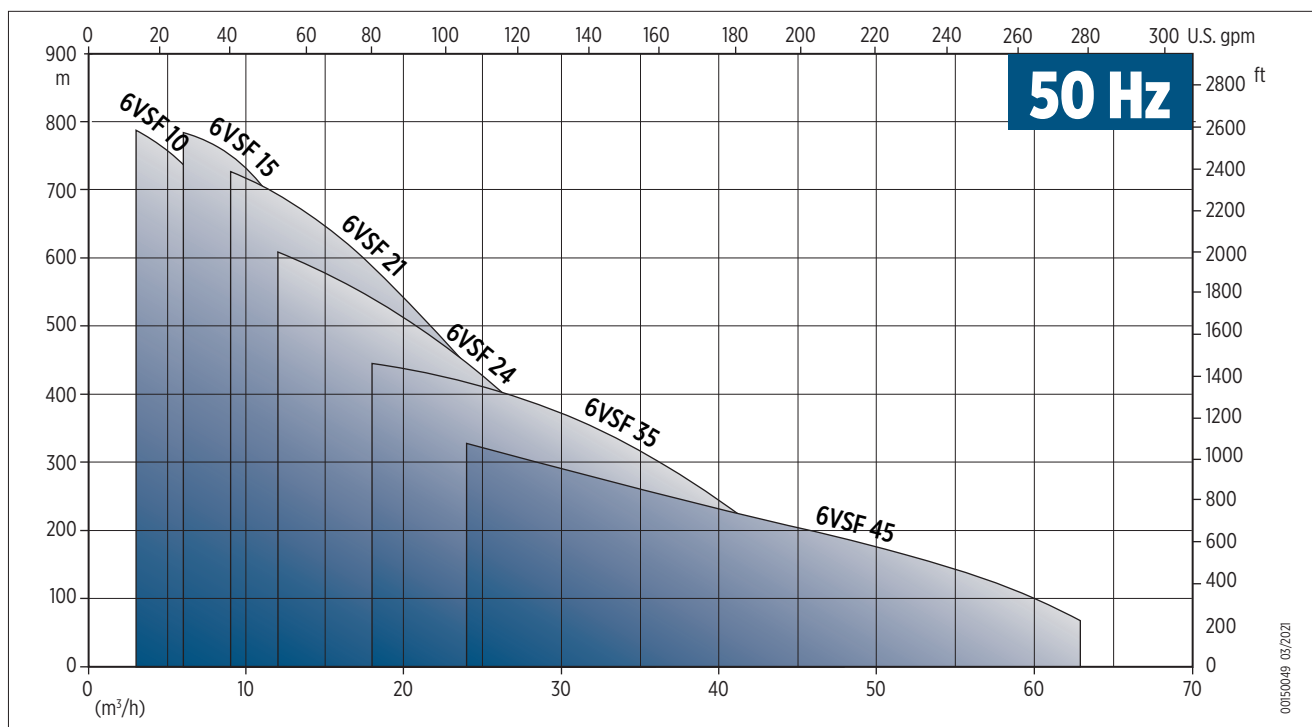
AVAILABLE ON REQUEST

- Spring loaded check valve for 6" pumps with less than 19 stages
- 6" motor support for 6VSF up to 5.5 kW
- Cooling shroud
- Discharge head 2" ½
- Double cable guard

4VSF FAMILY CURVES



6VSF FAMILY CURVES



PUMP IDENTIFICATION CODE

6	VSF	35	/	03	-	G	30	SL	-	N	-	M6	-	D	50	-	AA	
																		"Empty" (standard version)
																		"50" (50 Hz), "60" (60 Hz)
																		"D" (1 cable guard)
																		"S" (2 cable guard)
																		"M4" (4" NEMA), "M6" (6" NEMA)
																		"N" (NBR)
																		"SL" (check valve spring loaded), "Empty" (no spring loaded check valve)
																		"14" (1"¼), "20" (2"), "30" (3")
																		"G" (Gas), "N" (NPT)
																		Number of stages
																		Flow rate in m³/h
																		Series model
																		"4" (4"), "6" (6")

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PUMP RATING PLATE


E-Tech Franklin Electric Srl
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 H: 5 Hmax: 6
 MADE IN ITALY Q: 4 m³/h
 50Hz 3 Part No: 9
 eff: 8 SN: 2 MEI > 7

- 1) Model
- 2) Serial number
- 3) Nominal Rpm
- 4) Delivery range
- 5) Head range
- 6) Maximum head
- 7) MEI index
- 8) Hydraulic efficiency
- 9) Code

6VSF 24-35-45

Pump model	No. stages	RATED POWER		Q = DELIVERY																	
				m³/h 0	6	12	15	18	24	27	30	33	36	39	42	45	48	51	60	63	66
		[kW]	[HP]	l/min 0	100	200	250	300	400	450	500	550	600	650	700	750	800	850	1000	1050	1100
				H = TOTAL M.HEAD OF WATER COLUMN [m]																	
6VSF 24	03	3.0	4	46		40	38	35	29	25	21	16	10								
	04	4.0	5.5	61		56	50	47	39	33	27	21	13								
	06	5.5	7.5	92		79	75	70	58	50	41	31	20								
	08	7.5	10	122		106	100	94	77	67	55	42	27								
	10	9.2	12.5	153		132	125	117	97	84	69	52	34								
	12	11.0	15	184		159	150	141	116	100	82	63	40								
	14	13.0	17.5	214		185	175	164	135	114	96	73	47								
	16	15.0	20	245		212	200	187	154	134	110	83	54								
	20	18.5	25	306		264	251	234	193	167	137	104	67								
	24	22.0	30	267		317	301	281	232	200	164	125	81								
	28	26.0	35	428		370	351	328	270	234	192	146	94								
	32	30.0	40	490		423	401	375	309	267	219	167	108								
	40	37.0	50	612		529	501	468	386	334	274	208	134								
	46	45.0	60	704		608	576	539	444	384	315	240	155								
Efficiency					50%	56%	63%	67%	65%	59%	48%	-									
6VSF 35	02	3.0	4					28	26	25	23	21	19	16	13	10	7				
	03	4.0	5.5					42	39	37	35	32	28	24	20	15	10				
	04	5.5	7.5					55	52	49	46	42	38	32	26	20	13				
	05	7.5	10					69	65	62	58	53	47	40	33	25	17				
	06	9.2	12.5					83	78	74	70	64	57	48	39	30	20				
	08	11.0	15					111	104	99	93	85	76	65	53	40	26				
	09	13.0	17.5					125	117	111	104	96	85	73	59	45	30				
	10	15.0	20					139	130	124	116	106	95	81	66	50	33				
	13	18.5	25					180	169	161	151	138	123	105	86	64	43				
	16	22.0	30					222	208	198	186	170	151	129	105	79	53				
	19	26.0	35					264	246	235	220	202	180	154	125	94	63				
	22	30.0	40					305	285	272	255	234	208	178	145	109	73				
	27	37.0	50					374	350	334	313	287	255	218	170	134	89				
	32	45.0	60					444	415	396	371	340	302	259	211	158	106				
Efficiency							54%	64%	67%	68%	67%	64%	60%	50%	35%	-					
6VSF 45	04	7.5	10					47	45	42	39	36	33	31	28	26	24	14	9		
	06	9.2	12.5					70	68	63	58	54	50	46	43	39	36	21	14		
	07	11.0	15					82	79	74	68	63	58	54	50	46	42	25	16		
	08	13.0	17.5					93	90	84	78	72	66	61	57	53	48	28	18		
	09	15.0	20					105	101	95	88	81	75	69	64	59	54	32	21		
	12	18.5	25					140	135	126	117	107	99	92	85	79	72	42	28		
	14	22.0	30					163	158	147	136	125	116	108	100	92	84	49	32		
	17	26.0	35					198	191	179	165	152	141	131	121	112	102	60	39		
	19	30.0	40					221	214	200	185	170	157	146	135	125	114	67	44		
	24	37.0	50					280	270	252	234	215	199	184	171	158	144	84	55		
	28	45.0	60					326	315	294	272	251	232	215	199	184	168	98	64		
Efficiency							49%	52%	55%	57%	58%	58%	58%	56%	53%	48%	30%	-			

Best efficiency point

6VSF 21

Pump model	No. stages	Motor			Dimensions [mm]			Diameter [mm]			Weight [Kg]		
		Type	[Kw]	[HP]	L1	L2	Lt	Pump (PD)		Motor (MD)	Pump	Motor	Total
								1 cable	2 cable				
6VSF 21	02	E4	1.5	2	401	321.2	722.2	140	-	95.25	7.5	5.58	13.08
	03		2.2	3	458	422.2	880.2	140	-	95.25	8.3	15	23.3
	04	E4 HT	3	4	515	477.2	992.2	140	-	95.25	9.2	17	26.2
	05		4	5.5	572	543.2	1115.2	140	-	95.25	10.1	20	30.1
	02	E6	4	5.5	401	581.2	982.2	140	143	135.52	7.5	38	45.5
	03		4	5.5	458	581.2	1039.2	140	143	135.52	8.3	38	46.3
	04		4	5.5	515	581.2	1096.2	140	143	135.52	9.2	38	47.2
	05		4	5.5	572	581.2	1153.2	140	143	135.52	10.1	38	48.1
	07		5.5	7.5	686	614.4	1300.4	140	143	135.52	11.8	41	52.8
	10		7.5	10	857	646.2	1503.2	140	143	135.52	14.4	44	58.4
	12		9.2	12.5	971	678.7	1649.7	140	143	135.52	16.1	47.5	63.6
	15		11	15	1142	711.2	1853.2	140	143	135.52	18.7	50	68.7
	17		15	20	1308	776.2	2084.2	140	143	135.52	21.2	56	77.2
	20		15	20	1494	776.2	2270.2	140	143	135.52	25.9	56	81.9
	25		18.5	25	1778	841.5	2619.5	140	143	135.52	30.4	63	93.4
	30		22	30	2212	906.5	3118.5	140	143	135.52	42.7	68.5	111.2
	35		30	40	2497	1036.6	3533.6	140	143	135.52	47.8	83	130.8
	40		30	40	2886	1036.6	3922.6	140	143	135.52	54.5	83	137.5
	50		37	50	3456	1476.7	4932.7	140	143	135.52	64.5	118	182.5
	58		45	60	4164	1629.2	5793.2	140	143	135.52	78.7	130	208.7
	02	RW6	4	5.5	401	679	1080	140	143	142	7.5	43	50.5
	03		4	5.5	458	679	1137	140	143	142	8.3	43	51.3
	04		4	5.5	515	679	1194	140	143	142	9.2	43	52.2
	05		4	5.5	572	679	1251	140	143	142	10.1	43	53.1
	07		5.5	7.5	686	679	1365	140	143	142	11.8	43	54.8
	10		7.5	10	857	699	1556	140	143	142	14.4	45	59.4
	12		9.2	12.5	971	729	1700	140	143	142	16.1	49	65.1
	15		11	15	1142	759	1901	140	143	142	18.7	53	71.7
	17		13	17.5	1308	809	2117	140	143	142	21.2	57	78.2
	20		15	20	1494	854	2348	140	143	142	25.9	61	86.9
	25		18.5	25	1778	899	2677	140	143	142	30.4	66	96.4
	30		22	30	2212	989	3201	140	143	142	42.7	77	119.7
	35		26	35	2497	1094	3591	140	143	142	47.8	88	135.8
	40		30	40	2886	1194	4080	140	143	142	54.5	98	152.5
	50		37	50	3456	1274	4730	140	143	142	64.5	105	169.5

