

# Sumoto

# 6WP

6" Encapsulated submersible motor



The 6-inch water-filled, encapsulated submersible motor is designed to meet the needs of demanding water supply applications, delivering reliable performance and long-lasting durability. Ideal for use in 6-inch and larger diameter wells, it is perfectly suited for agricultural, industrial, and municipal water systems. The water-filled cooling system ensures efficient heat dissipation and optimal motor performance, while the encapsulated stator provides exceptional protection against humidity and mechanical stress. Inside the motor, a specially formulated mixture of water and glycol serves as both a coolant and lubricant, enhancing internal component protection, reducing wear, and ensuring smooth, reliable operation over time. This design reduces maintenance needs and extends the operational life of the motor. At Sumoto, we have been manufacturing the 6WP series since 2018, combining our expertise with the latest technologies to offer a dependable solution for high-capacity pumping in even the most challenging conditions. Durable, efficient, and easy to maintain, the 6WP motor is the smart choice for modern water pumping systems.

## TECHNICAL FEATURES

- Encapsulated resin filled stator.
- Upper and lower bracket: Cathaphoresis treated cast iron.
- Motor case: SS 304.
- Motor shaft: SS 431.
- Shaft end and coupling: NEMA Standard.
- NEMA standard power side bracket: UNF threaded holes upon request.
- Kingsbury thrust bearing.
- Winding: enameled copper - Class F insulation.
- Degree of protection: IP68/Class B.
- Max temp. 35° with water cooling flow min. 0.16 m/s.
- Max depth immersion: 350 m.
- Nos. of start per hour: max 20 for D.O.L. type.
- Mechanical seal: SiC/SiC.
- Sand slinger.
- Coolant: water and propylene glycol.
- EPDM flat blue cable - AWG stranded version upon request.
- Motor cable length: 4 m (3 wires plus ground).
- Voltage variation: +/-10%.
- Starting method: D.O.L / Star-Delta.
- Suitable for horizontal operation.

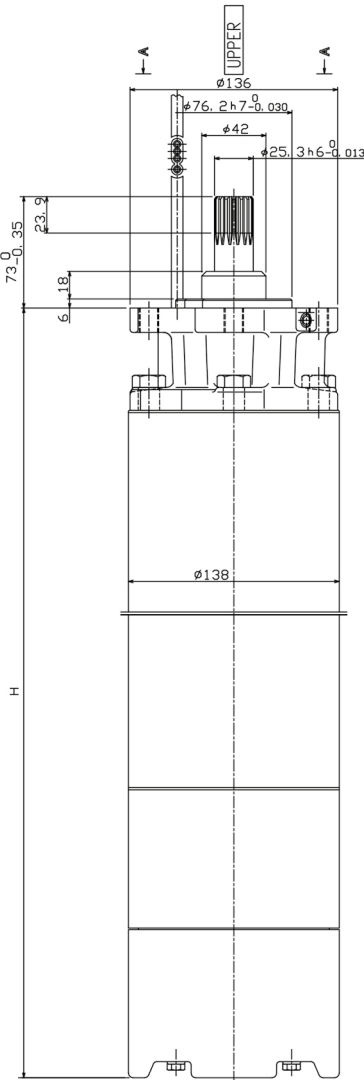
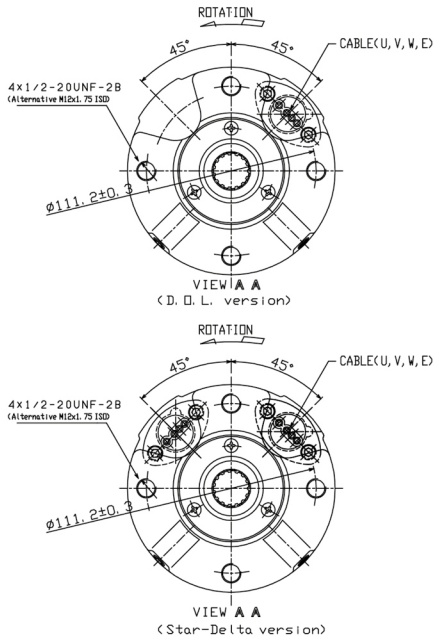
## MOTOR RANGE VERSIONS

- Single Phase: 3.7kW (5.5hp) to 11kW (15hp), 220-230V / 50Hz (or 60 Hz).
- Three Phase: 3.7kW (5.5hp) to 45kW (60hp), 380-415V / 50Hz - 460V / 60Hz.
- Axial thrust:           - 15.500 N from 3.7kW to 22kW  
                                  - 22.250 N from 30kW to 45kW.

Other voltage and frequencies available upon request.



## TECHNICAL DRAWING



## 6WP CONSTRUCTION DETAILS



Our 6WP motors are equipped with durable SiC-SiC mechanical seals (silicon carbide-silicon carbide), selected for their superior wear resistance and thermal stability. This type of seal significantly enhances motor reliability and contributes to its extended service life with minimal maintenance.

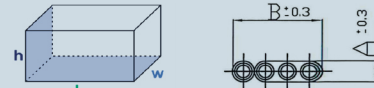


The upper bracket is manufactured in cathodolysis-coated cast iron, providing high mechanical strength and enhanced corrosion resistance. This surface treatment ensures long-term protection in aggressive environments and contributes to the overall durability of the motor assembly.



The motor features a removable cable connector for quick and easy maintenance. Our flat blue power cable, approved for use with drinking water, is certified according to ACS, KTW, and WRAS. Upon request, a stranded cable version is also available.

## PACKAGING WEIGHT & DIMENSIONS



Type	kW	Hp	Thrust Load	Weight	Height	Width	Length	Cable		
								kg	cm	Sec. mm <sup>2</sup>
6WP 550	4	5,5	15500 N	57	35	24	84	4	7,5	24
6WP 750	5,5	7,5	15500 N	58	35	24	84	4	7,5	24
6WP 1000	7,5	10	15500 N	65	35	24	89	4	7,5	24
6WP 1500	11	15	15500 N	69	35	24	96	4	7,5	24
6WP 2000	15	20	15500 N	78	35	24	104	4	7,5	24
6WP 2500	18,5	25	15500 N	85	35	24	111	6	7,5	24
6WP 3000	22	30	15500 N	100	35	24	120	6	7,5	24
6WP 4000	30	40	22250 N	109,5	35	24	128	8	8,1	27,6
6WP 5000	37	50	22250 N	120,5	35	24	135	8	8,1	27,6
6WP 6000	45	60	22250 N	124	35	24	145	8	8,1	27,6



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# 50Hz.

## THREE PHASE - 380/400/415V

Type	kW	Hp	Thrust Load	Weight	Height	In	Istart	Imax	RPM	Cosφ	Ts/Tn	EFF%	R mot	Rf2 leads
			N	Kg	mm	Amp	[Ω]	[Ω]						
6WP 550 380	4	5,5	15500	44,5	575	9,4	39	10,4	2770	0,85	1,7	76,20	3,3	4,95
6WP 550 400	4	5,5	15500	44,5	575	9,2	39	10,2	2790	0,83	1,7	76,30	3,3	4,95
6WP 550 415	4	5,5	15500	44,5	575	9,1	39	10,1	2815	0,80	1,8	76,60	3,3	4,95
6WP 750 380	5,5	7,5	15500	47,5	615	12,7	57	13,7	2790	0,85	1,7	76,40	2,3	3,45
6WP 750 400	5,5	7,5	15500	47,5	615	12,4	57	13,4	2810	0,82	1,7	77,10	2,3	3,45
6WP 750 415	5,5	7,5	15500	47,5	615	12,3	57	13,3	2830	0,80	1,7	77,40	2,3	3,45
6WP 1000 380	7,5	10	15500	51	670	16,9	80	18,4	2810	0,86	1,8	78,10	1,482	2,22
6WP 1000 400	7,5	10	15500	51	670	16,5	80	18,0	2830	0,84	1,9	78,50	1,482	2,22
6WP 1000 415	7,5	10	15500	51	670	16,4	80	17,9	2840	0,81	1,9	78,60	1,482	2,22
6WP 1500 380	11	15	15500	56	725	24,3	117	25,8	2790	0,87	1,9	78,70	1,02	1,58
6WP 1500 400	11	15	15500	56	725	23,6	117	25,1	2810	0,85	2,0	79,00	1,02	1,58
6WP 1500 415	11	15	15500	56	725	23,4	117	24,9	2830	0,83	2,0	79,30	1,02	1,58
6WP 2000 380	15	20	15500	64,5	820	32,8	152	34,8	2770	0,88	1,9	78,50	0,75	1,14
6WP 2000 400	15	20	15500	64,5	820	31,5	152	33,5	2800	0,86	2,0	79,20	0,75	1,14
6WP 2000 415	15	20	15500	64,5	820	31,1	152	33,1	2820	0,84	2,0	79,50	0,75	1,14
6WP 2500 380	18,5	25	15500	71	895	39,8	190	41,8	2780	0,89	1,8	79,20	0,59	0,89
6WP 2500 400	18,5	25	15500	71	895	38,2	190	40,2	2810	0,87	1,8	79,70	0,59	0,89
6WP 2500 415	18,5	25	15500	71	895	37,7	190	39,7	2825	0,85	1,8	79,80	0,59	0,89
6WP 3000 380	22	30	15500	83,5	975	46,3	215	49,3	2845	0,90	1,7	79,50	0,55	0,84
6WP 3000 400	22	30	15500	83,5	975	44,3	215	47,3	2845	0,90	1,7	80,10	0,55	0,84
6WP 3000 415	22	30	15500	83,5	975	43,0	215	46,0	2860	0,89	1,7	80,20	0,55	0,84
6WP 4000 380	30	40	22250	91,5	1060	63,7	300	66,7	2820	0,91	1,5	78,20	0,39	0,59
6WP 4000 400	30	40	22250	91,5	1060	60,2	300	63,2	2840	0,90	1,5	79,70	0,39	0,59
6WP 4000 415	30	40	22250	91,5	1060	59,0	300	62,0	2850	0,89	1,5	79,90	0,39	0,59
6WP 5000 380	37	50	22250	99,5	1135	75,3	440	78,3	2850	0,90	1,5	83,00	0,32	0,48
6WP 5000 400	37	50	22250	99,5	1135	72,6	440	75,6	2865	0,88	1,5	83,70	0,32	0,48
6WP 5000 415	37	50	22250	99,5	1135	70,9	440	73,9	2840	0,89	1,5	84,50	0,32	0,48
6WP 6000 380	45	60	22250	102	1235	96,2	485	99,2	2800	0,89	1,6	79,40	0,23	0,36
6WP 6000 400	45	60	22250	102	1235	93,4	485	96,4	2830	0,86	1,6	80,30	0,23	0,36
6WP 6000 415	45	60	22250	102	1235	93,0	485	96,0	2845	0,83	1,6	80,60	0,23	0,36

Sumoto reserves the right to make modifications without prior notice



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# 60Hz.

THREE PHASE - 460V															
Type	kW	Hp	Thrust Load	Weight	Height	In	Imax	RPM	Cosφ	Ts/Tn	EFF%	S.F.	Rf [Ω]	Rf 2 leads [Ω]	
			N	Kg	mm	Amp									
6WP 550	4	5,5	15500	44,5	575	8,1	9,1	3430	0,81	2	76,3	1,15	3,3	4,95	
6WP 750	5,5	7,5	15500	47,5	615	11	12,3	3430	0,81	2,1	76,8	1,15	2,3	3,45	
6WP 1000	7,5	10	15500	51	670	14,5	16,2	3440	0,82	1,75	78,7	1,15	1,48	2,22	
6WP 1500	11	15	15500	56	735	20,9	23,4	3430	0,83	1,95	79,5	1,15	1,02	1,58	
6WP 2000	15	20	15500	64,5	820	27,6	31,2	3420	0,85	2,05	80,2	1,15	0,75	1,14	
6WP 2500	18,5	25	15500	71	895	34,9	39,6	3430	0,87	2,1	76,1	1,15	0,59	0,89	
6WP 3000	22	30	15500	83,5	975	38,2	43,6	3470	0,88	2,05	82,5	1,15	0,55	0,84	
6WP 4000	30	40	22250	91,5	1060	52,8	59,7	3470	0,88	2,08	80,3	1,15	0,39	0,59	
6WP 5000	37	50	22250	99,5	1135	62,4	70,8	3490	0,87	2,1	85,2	1,15	0,32	0,48	
6WP 6000	45	60	22250	102	1235	84,5	90,9	3435	0,85	2	78,8	1,15	0,23	0,36	

THREE PHASE - 230V															
Type	kW	Hp	Thrust Load N	Weight Kg	Height mm	In	Imax	RPM	Cosφ	Ts/Tn	EFF%	S.F.	Rf [Ω]	Rf 2 leads [Ω]	
6WP 550	4	5,5	15500	44,5	575	16,6	18,4	3420	0,8	2	76	1,15	1,2375	0,825	
6WP 750	5,5	7,5	15500	47,5	615	22,6	25,2	3430	0,81	2,1	76,5	1,15	0,8625	0,575	
6WP 1000	7,5	10	15500	51	670	29,8	33,2	3430	0,82	1,75	78	1,15	0,555	0,37	
6WP 1500	11	15	15500	56	735	42,6	47,8	3420	0,83	1,95	79,5	1,15	0,39375	0,2625	
6WP 2000	15	20	15500	64,5	820	56,8	64	3410	0,85	2,05	80	1,15	0,285	0,19	
6WP 2500	18,5	25	15500	71	895	69	76	3430	0,86	2,08	82	1,15	0,2235	0,149	
6WP 3000	22	30	15500	83,5	975	76	85	3470	0,88	2,1	82	1,15	0,21	0,14	
6WP 4000	30	40	22250	91,5	1060	105,4	116	3460	0,88	2,1	82	1,15	0,147	0,098	
6WP 5000	37	50	22250	99,5	1135	128,6	141,6	3450	0,87	2,1	83	1,15	0,12	0,08	

SINGLE PHASE - 230V																
Type	kW	Hp	Thrust Load	Weight	Height	In	Imax	RPM	Cosφ	Ts/Tn	EFF%	S.F.	Crun	Cstart	R mot	Rf2 leads
			N	Kg	mm	Amp	μF						[Ω]	[Ω]		
6WP 500	4	5	15500	44,5	575	25,1	28,6	3460	0,96	1,2	66	1,15	40	270-324	0,59	1,83
6WP 750	5,5	7,5	15500	47,5	615	38,4	43,3	3460	0,92	1,2	67	1,15	45	486-583	0,31	0,97
6WP 1000	7,5	10	15500	51	670	49,2	56,3	3460	0,93	1,3	71,6	1,15	70	620-744	0,26	0,6
6WP 1500	11	15	15500	56	735	68,3	78,9	3490	0,96	1,3	72	1,15	135	700-840	0,19	0,4



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