

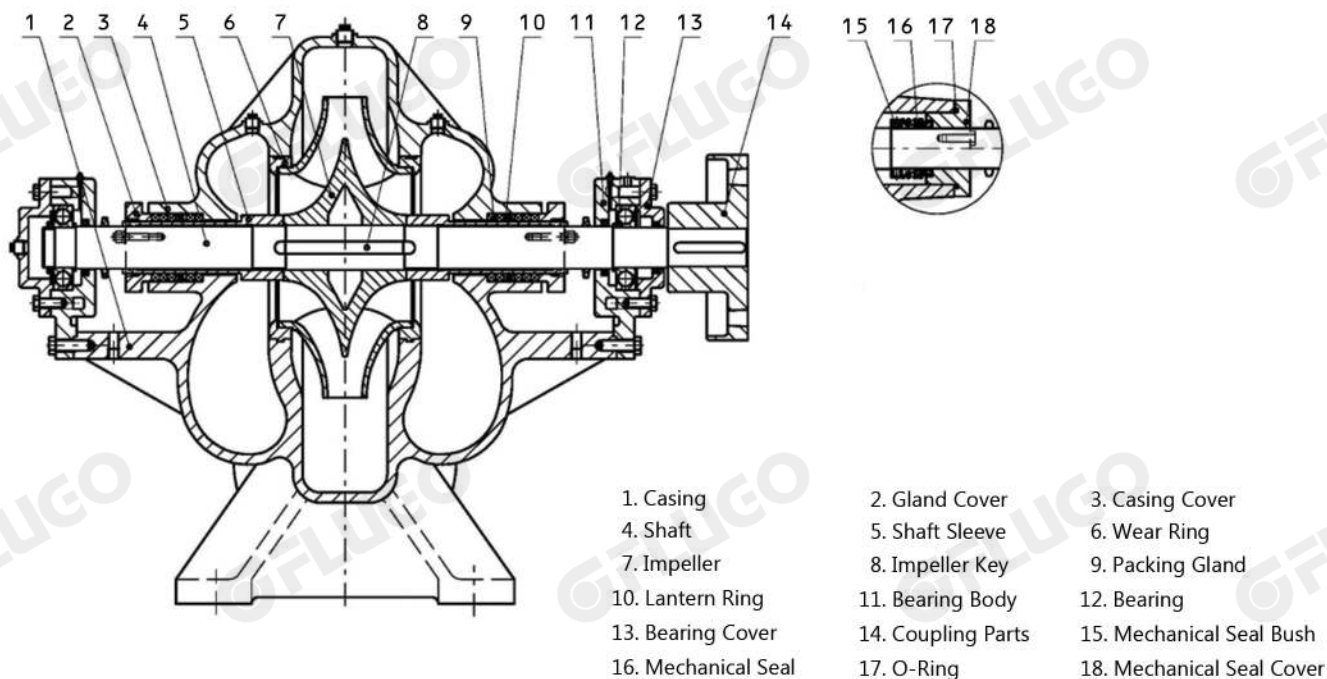


APS (APSL) SERIES

Single Stage Double Suction Centrifugal Pumps



APS/APSL - SECTIONAL DRAWING



■ Type Description

Eg: APS/APSL800/47A

AS -- APS Series single stage double suction horizontal split case pump

ASL -- APSL Series single stage double suction vertical split case pump

800 - Suction Diameter (mm)

47 - Designed Head (m)

A - The First Cut of Impeller's Outer Diameter

■ General Introduction

APS (APSL) Series single stage double suction split case centrifugal pump is exploited by our technician absorbed the merits of all kinds of split case pumps with improvement and optimization. Used in water supplying product, circulation of air condition, Water Supplying for fire fighting, water supplying for buildings, drainage, power station, water supplying system of industry, shipping and oil refining industry, carry clean water and the liquid which is similar to clean water.

■ Working Condition

Suction Diameter : DN150 ~ 1400 mm

Flow Range : Max. 21800 m³/h

Head Range : Max. 140 m

Speed : Max. 3000 r/min

APS (APSL) - SECTIONAL DRAWING

Working temperature: $-10^{\circ}\text{C} \sim 85^{\circ}\text{C}$ (Over 85°C , please contact and consult our company)

Medium density: water and the medium density less than 1.3 times of water.

■ Design Character

1. Absorb the international advanced technology, and summarize manufacturing experience more than 40 years, using CAD software design and the NREC software and CFD to analysis and check, ensure the products with high efficiency.

2. Horizontal split case structure, suction and discharge are below the center line, the suction flow is double suction type, and symmetry in flow on both sides of the pump casing, large flow, high head pump adopts double volute design, to ensure the pump's radial and axial force balance, and operate smoothly and durable.

3. APSL vertical split case pump, shaft use double thrust ball bearing to avoid axial motion which caused by vertical suction intermittent imbalance, to ensure the operation as smoothly as horizontal type.

4. Special designed shaft sleeve to avoid loosen, no matter clockwise running or counterclockwise running, there is no necessary to change spare parts. If it is necessary to change the direction of running, just put the rotor parts to be removed and reversing assembly.

5. Completely apply to the latest national standards, international ISO standards.

6. With the public base plate: over than 90kw of pumps, our company don't suggest that using public base plate, if the customer need, please contact company before ordering.

■ Manufacturing Technology

1. All casting models open mould by processing center, precision size to ensure hydraulic design requirements.

2. Pump castings use resin sand casting, the lowest material is HT250, Castings with high intensity, smooth flow.

3. Use CNC gantry milling machine processing pump casing and casing cover surface. Adopt the NC boring machine rotor parts, high location accuracy, ensure lower consumption of the rotor running, and smooth operation, high efficiency.

4. The balance of impeller is G2.5 level.

5. To provide customer UT, RT, PT nondestructive detection by charging.

6. Use the 3D printing technology to provide customer with special hydraulic performance requirements of the product.

■ The direction of pump

From the driving end, pump is operating in clockwise (if the direction of rotation is different from the normal requirements, please especially indicate when placing order).

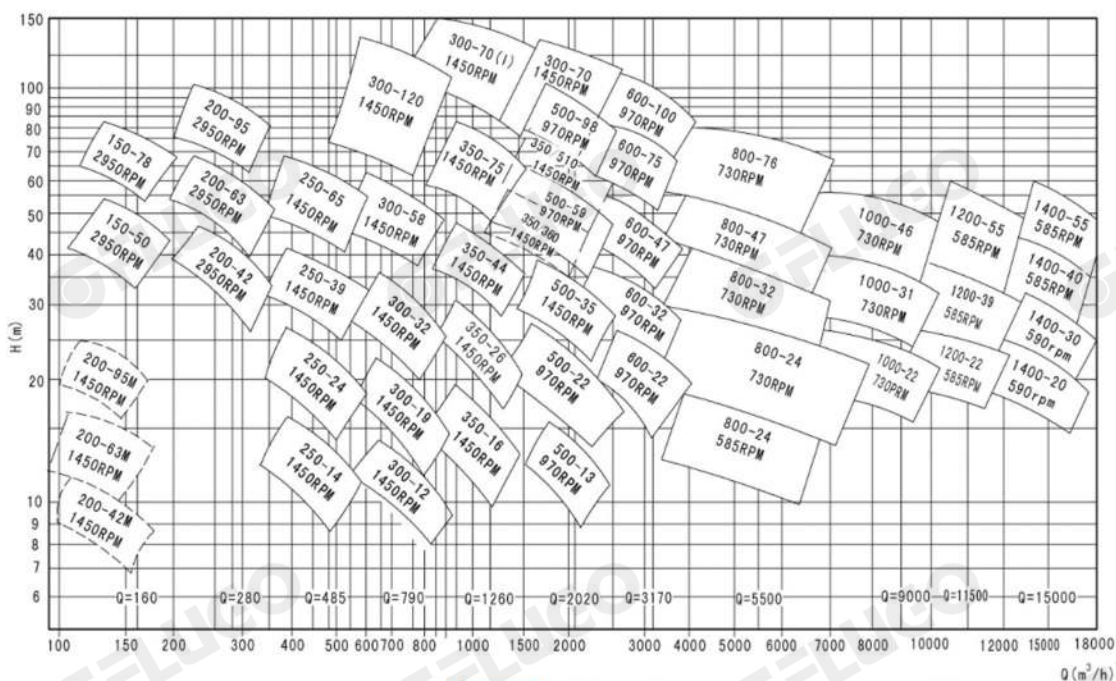
Pump Performance Parameter Table

APS model	Flow Q		Head H (m)	Speed n (r/min)	Power N (kW)		Eff. η (%)	NPSHR (m)	Weight (kg)
	(m³/h)	(l/s)			Shaft power	Motor			
150-78	160	44.44	78	2950	45	55	75.5	3.5	140
150-78A	144	40.00	62		33.8	45	72	3.5	140
150-50	160	44.44	50		27.3	37	80	3.9	130
150-50A	144	40.00	40		20.9	30	75	3.6	130
200-59	280	77.78	95		91.7	132	79.2	5.3	260
200-59A	270	75.00	85		83.3	110	75	5.3	260
200-63	280	77.78	63		58.1	75	82.7	5.8	230
200-63A	270	75.00	46		45.1	55	75	5.8	230
200-42	280	77.78	42		38	45	84.2	6	180
250-65	485	134.72	65	1450	109.2	160	78.6	3	480
250-65A	468	130.00	54		89.4	132	77	3	480
250-39	485	134.72	39		61.6	75	83.6	3.2	380
250-39A	465	129.17	30		48.4	55	79	3.2	380
250-24	485	134.72	24		36.9	45	85.8	3.5	370
250-24A	414	115.00	20		27.2	37	83	3.5	370
250-14	485	134.72	14		21.6	30	85.5	3.8	320
250-14A	432	120.00	11		15.8	18.5	82	3.8	320
300-90	790	219.44	90		243.3	315	79.6	4	840
300-90A	756	210.00	78		217	280	74	4	840
300-58	790	219.44	58		148.2	200	84.2	4.4	810
300-58A	720	200.00	49		118.6	160	81	4.4	810
300-32	790	219.44	32		79.3	90	86.8	4.6	710
300-32A	720	200.00	26		60.7	75	84	4.6	710
300-19	790	219.44	19		47.1	55	86.8	5.2	488
300-19A	720	200.00	16		39.2	45	80	5.2	488
300-12	790	219.44	12		30.4	37	84.8	5.5	660
300-12A	648	180.00	10		23.9	30	78	5.5	660
350-125	1260	350.00	125		530.8	710	80.8	5.4	1580
350-125A	1181	328.06	112		462	630	78	5.4	1580
350-75	1260	350.00	75	1450	302.1	355	85.2	5.8	1200
350-75A	1170	325.00	65		247	280	84	5.8	1200
350-44	1260	350.00	44		172.5	220	87.5	6.3	1105
350-44A	1110	308.33	36		130	160	84	6.3	1105
350-26	1260	350.00	26		102	132	87.5	6.7	875
350-26A	1116	310.00	21		76.9	110	83	6.7	875
350-16	1260	350.00	16		64.4	75	85.3	7.1	760
350-16A	1044	290.00	13		47.4	55	78	7.1	760
500-98	2020	561.11	98		678.1	800	79.5	4	2400
500-98A	1872	520.00	83		539	630	78.5	4	2400
500-59	2020	561.11	59		391	450	83	4.5	2240
500-59A	1872	520.00	49		333	400	75	4.5	2235
500-35	2020	561.11	35		218.8	280	88	4.8	1640
500-35A	1746	485.00	27		151	220	85	4.8	1640

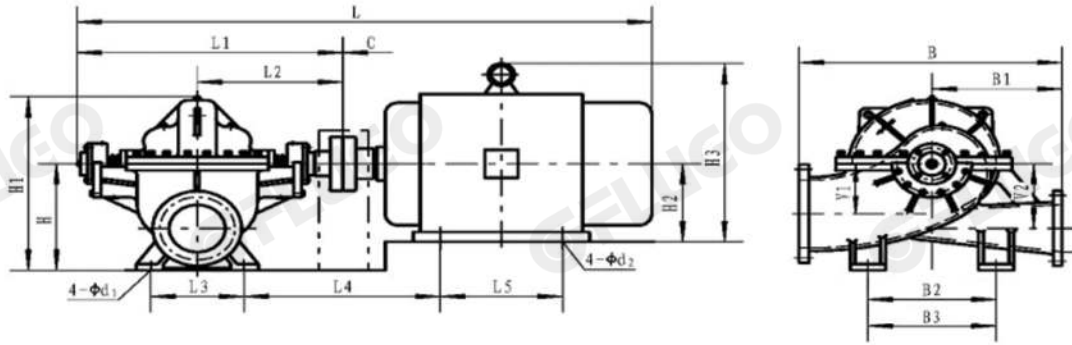
Pump Performance Parameter Table

500-22	2020	561.11	22	970	144.1	185	84	5.2	1558
500-22A	1746	485.00	17		101	132	80	5.2	1555
500-13	2020	561.11	13		86.2	110	83	5.7	1505
600-100	3170	880.56	100		1015.6	1400	85	6	7188
600-75	3170	880.56	75		736	900	88	6	4300
600-47	3170	880.56	47		456	560	89	6.5	3850
600-32	3170	880.56	32		310.4	355	89	7	2550
600-22	3170	880.56	22		215.8	250	88	7	2500
800-76	5500	1527.78	76	730	1293.6	1600	88	6	7888
800-47	5500	1527.78	47		782.2	1000	90	6.5	7300
800-32	5500	1527.78	32		538.5	630	89	7	5100
800-24	7380	2050.00	23		519.4	630	89	7	7000
1000-46	8250	2291.67	46		1174.8	1250	88	6.9	12000
1000-31	8250	2291.67	31		791.7	900	88	6.5	11500
1000-22	8250	2291.67	22		568.3	630	87	10.4	11000
800-76	4400	1222.22	49	590	674.9	800	87	4	7888
800-47	4400	1222.22	30		403.9	450	89	4	7300
800-32	4400	1222.22	20		272.3	315	88	4.5	5100
800-24	5914.1	1642.81	14.8		270.3	315	88	5	7000
1200-55	10800	3000.00	56		1871	2200	88	7.5	
1200-39	9000	2500.00	39		1092.4	1250	87.5	5.5	16000
1200-22	9612	2670.00	22		662	710	87	5.8	
1400-55	16500	4583.33	55		2690	3000	93	7.6	
1400-30	20556	5710.00	27		1675	1800	90.3	8.2	
1400-20	18000	5000.00	20		1150	1250	85	7.5	

Selection Chart - APS Pump Performance Range Drawing



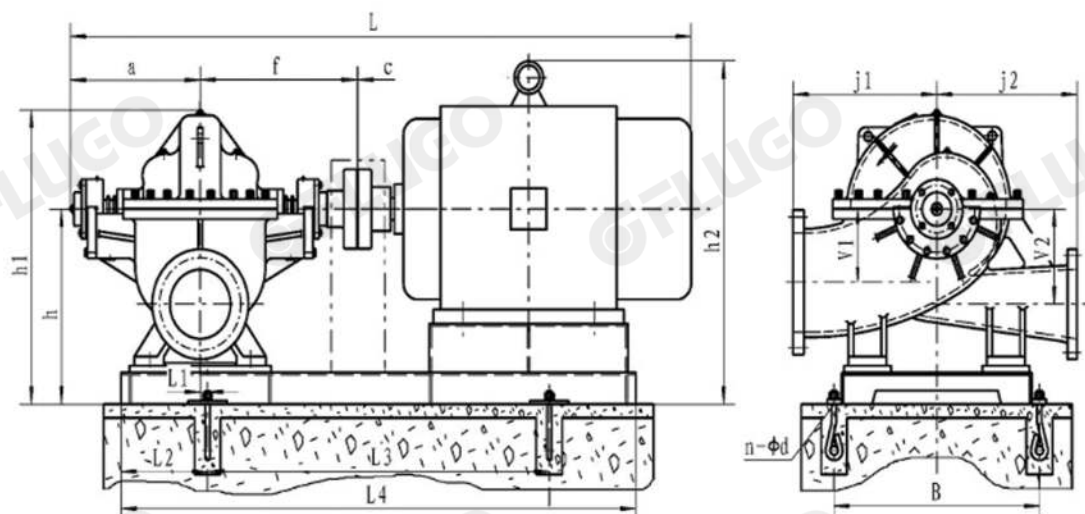
Installation Dimension Table (Without Baseplate)



Note:
1. Anchor hole is generally
100*100 Square

APS Model	C	Motor			Motor dimension					E	b	L	L2	Spit out cone flange size					
		Model	Pow	Volt	L1	H	h	B	b1	n-φd1					Dg2	Do	D2	n-φd2	
200-95	5	YX3-315M-2	132	380	1310	315	865	457	508	4-Φ28	37	280	2165	695	200	29	33	8-Φ23	
200-95A		YX3-315S-2	110		1240	315	865	408	508	4-Φ28	5		2095	695		5	5		
200-98B		YX3-280S-2	75		1000	280	640	368	457	4-Φ24			1855	669					
250-65		YX3-315M-4	132		1340	315	865	457	508	4-Φ28	550	2445	777	250	35	39	12-Φ23		
250-65A		YX3-280M-4	90		1050	280	640	419	457	4-Φ24			2155		721	0		0	
300-90		Y355-4	315	6000	1820	355	1065	900	630	4-Φ28	50	560	3013	968	300	40	44	12-Φ23	
300-90A		Y335-4	280	6000	1820	355	1065	900	630	4-Φ28			3013	968					
300-90B		Y355-4	220	6000	1820	355	1065	900	630	4-Φ28			3013	968					
300-58		YX3-315L2-4	200	380	1340	315	865	508	508	4-Φ28		550	2484	795		0	0		
300-58A		YX3-315L1-4	160		1340	315	865	508	508	4-Φ28				2484					795
300-58B		YX3-315M-4	132		1340	315	865	457	508	4-Φ28			2484	795					
350-125	5	Y450-4	710	6000	2040	450	1350	1120	800	4-Φ35	75	500	3490	1149	350	46	50	16-Φ23	
350-125A		Y450-4	630	6000	2040	450	1350	1120	800	4-Φ35	75		3492	1149		46	50		
350-125B		Y400-4	500	6000	1900	400	1200	1000	710	4-Φ35	50	720	3352	1129	350	46	50	16-Φ23	
350-75		Y400-4	355		1900	400	1200	1000	710	4-Φ35			3176	1009					
350-75A		Y355-4	280		1820	355	1065	900	630	4-Φ28			3096	989					
350-75B		Y355-4	220	6000	1820	355	1065	900	630	4-Φ28		3096	989						
350-44		Y355-4	220	6000	1820	355	1065	900	630	4-Φ28	500	3075	974	350		46	50		16-Φ23
350-44A		YX3-315L1-4	160	380	1340	315	865	508	508	4-Φ28		600	2595						
350-26		YX3-315M-4	132		1340	315	865	457	508	4-Φ28	2511		782						
350-26A		YX3-315S-4	110		1270	315	865	406	508	4-Φ28	600	2441	782						
350-16		YX3-280S-4	75		1000	280	640	368	457	4-Φ24		2133	706						
350-16A		YX3-250M-4	55	930	250	575	349	406	2063			684							
500-98	5	Y500-6	800	6000	2360	500	1500	1250	900	4-Φ42	10	800	4004	1351	5000	62	67	20-Φ25	
500-98A		Y450-6	630	6000	2080	450	1350	1120	800	4-Φ35			3724	1231					
500-98B		Y450-6	560		2080	450	1350	1120	800	4-Φ35			3724	1231					
500-59		Y450-6	450		2080	450	1350	1120	800	4-Φ35	80	800	3722	1224	500	62	67	20-Φ25	
500-59A		Y400-6	400		1900	400	1200	1000	710	4-Φ35			3542	1204					
500-59B		Y400-6	315		1900	400	1200	1000	710	4-Φ35			3542	1204					
500-35		Y400-6	280		1900	400	1200	1000	710	4-Φ35		800	3278	1025					
500-35A		Y355-6	220	6000	1820	355	1065	900	630	4-Φ28	3198		1005						
500-22		Y400-6	185	6000	2060	400	1450	1000	710	4-Φ35	800	3461	1029	500		62	67		20-Φ25
500-22A		YX3-315L2-6	132	380	1340	315	865	508	508	4-Φ28		2741	870						
500-13		YX3-315L1-6	110		1340	315	865	508	508	4-Φ28		2656	818						

Installation Dimension Table (Without Baseplate)



NOTE:

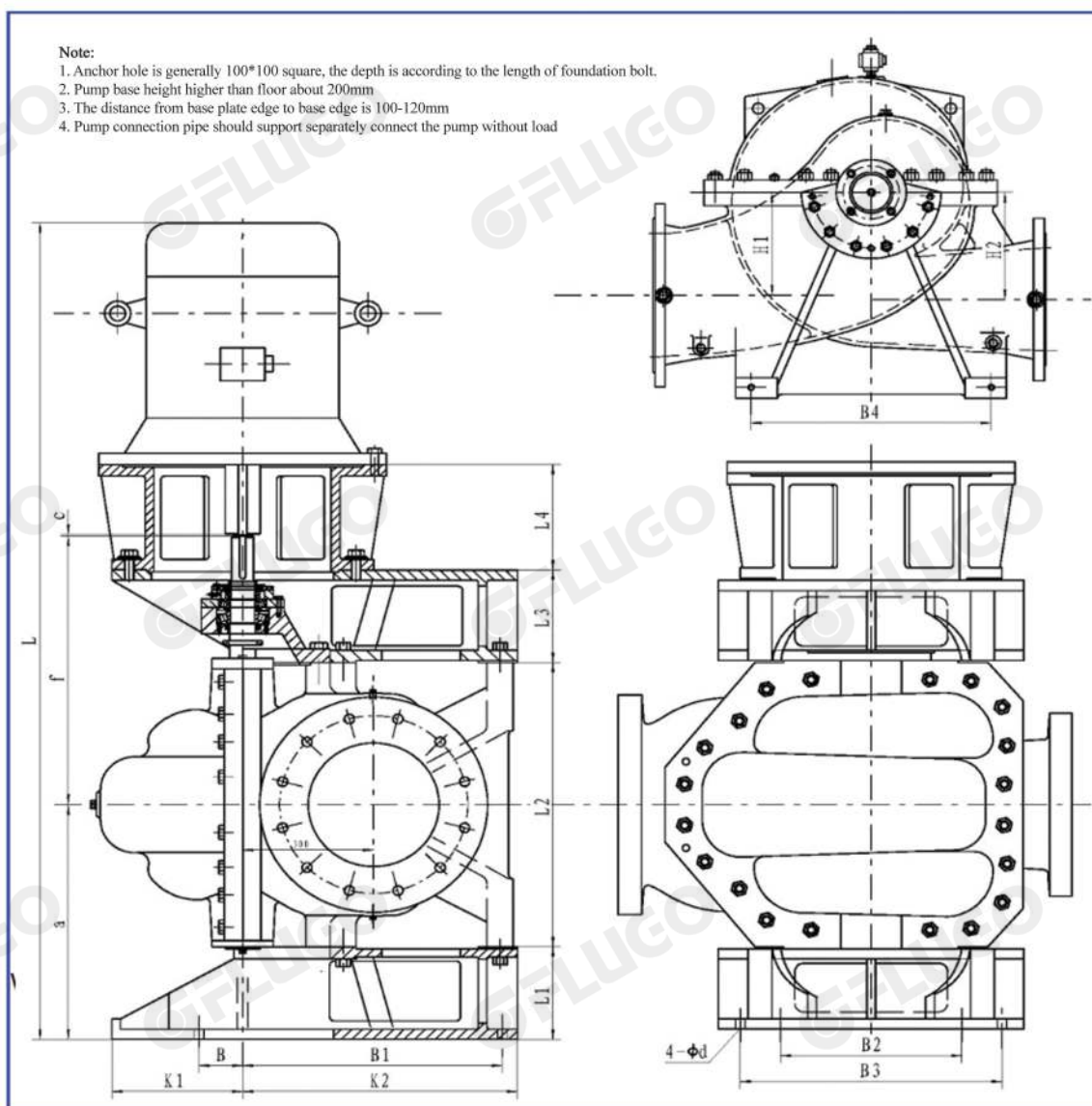
1. Anchor hole is generally 100*100 square, the depth is according to the length of foundation bolt

APS Model	C	Motor		Motor dimension								E	H1	L	Spit out cone flange size			
		Model	Power (kw)	L1	h	H	L2	b	b1	h3	4-φ d1				Dg2	Do2	D2	n-φ d2
150-78	4	YX3-250M-2	55	930	575	250	884	465	635	40	4-Φ 25	300	385	1648	150	240	280	8-Φ 23
150-78A		YX3-225M-2	45	815	530	225	812		564					1533				
150-78M		YX3-132M-4	7.5	515	315	132	659		440					1233				
150-50		YX3-200L2-2	37	775	475	200	800	465	550	40	4-Φ 25	300	385	1493	150	240	280	8-Φ 23
150-50A		YX3-200L1-2	30						440					1193				
150-50M		YX3-132S-4	5.5	475	315	132	659		440					1193				
200-95M	4	YX3-160L-4	15	650	385	160	824	465	490	40	4-Φ 25	350	455	1505	200	335	295	8-Φ 23
200-63		YX3-280S-2	75	1000	640	280	927	465	695	40	4-Φ 25	350	455	1748	200	335	295	8-Φ 23
200-63A		YX3-250M-2	55	930	575	250	884	465	635	40	4-Φ 25	350	455	1678	200	335	295	8-Φ 23
200-63M		YX3-160M-4	11	605	385	160	824	465	490					1354				
200-42		YX3-225M-2	45	815	530	225	829	465	550	40	4-Φ 25	350	455	1564	200	335	295	8-Φ 23
200-42A		YX3-200L2-2	37	775	475	200	810		515					1524				
200-42M		YX3-132S2-4	5.5	475	315	132	659		440					1224				
250-39		YX3-280S-2	75	1000	640	280	1072	655	735	40	4-Φ 25	300	570	1988	250	390	350	12-Φ 23
250-39A		YX3-250M-4	55	930	575	250	1005		665					1773				
250-24		YX3-225M-4	45	845	530	225	951	600	600	40	4-Φ 25	300	570	1748	250	390	350	12-Φ 23
250-24A		YX3-225S-4	37	820										1678				
250-14		YX3-200L-4	30	775	475	200	880	605	605	40	4-Φ 25	300	570	1567	250	390	350	12-Φ 23
250-14A		YX3-180M-4	18.5	670	430	180	840	620	530					2147				
300-32		YX3-280M-4	90	1050	640	280	1148	690	690	50	4-Φ 30	300	630	2097	300	440	400	12-Φ 23
300-32A		YX3-280S-4	75	1000										1913				
300-19		YX3-250M-4	55	930	575	250	1024	770	700	50	4-Φ 30	300	630	1803	300	440	400	12-Φ 23
300-19A		YX3-225S-4	37	820	530	225	1000		685					1833				
300-12		YX3-225S-4	37	820	530	225	1000	770	685	50	4-Φ 30	300	630	1788	300	440	400	12-Φ 23
300-12A		YX3-200L-4	30	775	475	200	951							1788				

Vertical Split Case Pump - Outline Dimensions Drawing

Note:

1. Anchor hole is generally 100*100 square, the depth is according to the length of foundation bolt.
2. Pump base height higher than floor about 200mm
3. The distance from base plate edge to base edge is 100-120mm
4. Pump connection pipe should support separately connect the pump without load



APSL Model	Motor		Installation Dimensions																	
	Frame	Power (kW)	a	f	L	L1	L2	L3	L4	B	B1	B2	B3	B4	H1	H2	K1	K2	d	c
300-19	YX3-225M-4	45	520	547	2006	180	680	180	171	100	480	450	550	550	250	260	290	520	22	4
300-32	YX3-280M-4	90	548	630	2332	175	745	175	210	100	420	340	540	550	270	270	260	530	22	4
300-58	YX3-315M-4	132	618	630	2762	225	785	225	188	100	480	485	550	550	240	310	300	510	22	5
350-16	YX3-280S-4	75	580	632	2326	180	800	180	196	100	590	485	600	600	310	310	300	630	22	4
350-26	YX3-280M-4	90	570	651	2375	225	690	225	222	100	590	485	600	600	290	300	300	620	22	4
350-44	YX3-315L-4	160	635	675	2821	225	820	225	211	100	500	500	650	500	300	300	350	635	28	4
350-75	YX3-355M-4	220	638	753	3166	200	876	200	211	90	500	485	770	720	260	360	270	595	28	4
500-13	YX3-355M-4	250	705	726.5	3106	225	960	225	196	100	770	560	930	800	410	410	350	815	28	5

According to the customer requirements , selecting different motor and providing new outline dimensions.