

• Main Performance Parameters

Model	Rated Capacity (m³/h)	Rated Head (m)	Rated Power (kW)	Speed (r/min)	Inlet Diameter (mm)	Rated Voltage (V)
100SP(M)2-21/8-0.25	2	21	0.25	2850	32	220/380
100SP(M)2-30/7-0.37	2	30	0.37	2850	32	220/380
100SP(M)2-39/9-0.37	2	39	0.37	2850	32	220/380
100SP(M)2-56/13-0.55	2	56	0.55	2850	32	220/380
100SP(M)2-77/18-0.75	2	77	0.75	2850	32	220/380
100SP(M)2-107/25-1.1	2	107	1.1	2850	32	220/380
100SP(M)2-141/33-1.5	2	141	1.5	2850	32	220/380
100SP(M)2-171/40-2.2	2	171	2.2	2850	32	220/380
100SP(M)2-206/48-2.2	2	206	2.2	2850	32	220/380
100SP2-236/55-3	2	236	3	2850	32	380
100SP2-270/63-3	2	270	3	2850	32	380
100SP(M)3-17/4-0.25	3	17	0.25	2850	32	220/380
100SP(M)3-26/6-0.37	3	26	0.37	2850	32	220/380
100SP(M)3-38/9-0.55	3	38	0.55	2850	32	220/380
100SP(M)3-51/12-0.75	3	51	0.75	2850	32	220/380
100SP(M)3-64/15-1.1	3	64	1.1	2850	32	220/380
100SP(M)3-77/18-1.1	3	77	1.1	2850	32	220/380
100SP(M)3-89/21-1.5	3	89	1.5	2850	32	220/380
100SP(M)3-106/25-1.5	3	106	1.5	2850	32	220/380
100SP(M)3-123/29-2.2	3	123	2.2	2850	32	220/380
100SP(M)3-140/33-2.2	3	140	2.2	2850	32	220/380
100SP3-157/37-3	3	157	3	2850	32	380
100SP3-179/42-3	3	179	3	2850	32	380
100SP3-200/47-4	3	200	4	2850	32	380
100SP3-221/52-4	3	221	4	2850	32	380
100SP(M)5-17/4-0.37	5	17	0.37	2850	40	220/380
100SP(M)5-26/6-0.55	5	26	0.55	2850	40	220/380
100SP(M)5-34/8-0.75	5	34	0.75	2850	40	220/380
100SP(M)5-43/10-1.1	5	43	1.1	2850	40	220/380
100SP(M)5-51/12-1.1	5	51	1.1	2850	40	220/380
100SP(M)5-60/14-1.5	5	60	1.5	2850	40	220/380
100SP(M)5-72/17-1.5	5	72	1.5	2850	40	220/380
100SP(M)5-89/21-2.2	5	89	2.2	2850	40	220/380
100SP(M)5-102/24-2.2	5	102	2.2	2850	40	220/380
100SP5-119/28-3	5	119	3	2850	40	380
100SP5-136/32-3	5	136	3	2850	40	380
100SP5-157/37-4	5	157	4	2850	40	380
100SP5-179/42-4	5	179	4	2850	40	380
100SP5-204/48-5.5	5	204	5.5	2850	40	380
100SP5-230/54-5.5	5	230	5.5	2850	40	380
100SP5-255/60-7.5	5	255	7.5	2850	40	380
100SP(M)8-16/4-0.55	8	16	0.55	2850	51	220/380
100SP(M)8-20/5-0.75	8	20	0.75	2850	51	220/380
100SP(M)8-27/7-1.1	8	27	1.1	2850	51	220/380
100SP(M)8-39/10-1.5	8	39	1.5	2850	51	220/380
100SP(M)8-59/15-2.2	8	59	2.2	2850	51	220/380
100SP(M)8-74/19-3	8	74	3	2850	51	380
100SP(M)8-86/22-4	8	86	4	2850	51	380
100SP(M)8-102/26-4	8	102	4	2850	51	380
100SP(M)8-125/32-5.5	8	125	5.5	2850	51	380
100SP(M)8-141/36-5.5	8	141	5.5	2850	51	380
100SP(M)8-156/40-7.5	8	156	7.5	2850	51	380
100SP(M)8-172/44-7.5	8	172	7.5	2850	51	380

Model	Rated Capacity (m³/h)	Rated Head (m)	Rated Power (kW)	Speed (r/min)	Inlet Diameter (mm)	Rated Voltage (V)
150SP(M)17-28/4-2.2	17	28	2.2	2850	76	220/380
150SP(M)17-35/5-3	17	35	3	2850	76	220/380
150SP(M)17-42/6-4	17	42	4	2850	76	220/380
150SP(M)17-49/7-4	17	49	4	2850	76	220/380
150SP(M)17-56/8-5.5	17	56	5.5	2850	76	220/380
150SP(M)17-70/10-5.5	17	70	5.5	2850	76	220/380
150SP17-84/12-7.5	17	84	7.5	2850	76	380
150SP17-98/14-9.2	17	98	9.2	2850	76	380
150SP17-112/16-9.2	17	112	9.2	2850	76	380
150SP17-133/19-11	17	133	11.0	2850	76	380
150SP17-161/23-13	17	161	13.0	2850	76	380
150SP17-181/26-15	17	181	15.0	2850	76	380
150SP17-202/29-18.5	17	202	18.5	2850	76	380
150SP17-223/32-18.5	17	223	18.5	2850	76	380
150SP17-244/35-22	17	244	22	2850	76	380
150SP17-265/38-22	17	265	22	2850	76	380
150SP17-293/42-26	17	293	26	2850	76	380
150SP17-321/46-26	17	321	26	2850	76	380
150SP(M)30-16/2-2.2	30	16	2.2	2850	76	220/380
150SP(M)30-24/3-3	30	24	3	2850	76	220/380
150SP(M)30-32/4-4	30	32	4	2850	76	220/380
150SP(M)30-40/5-5.5	30	40	5.5	2850	76	220/380
150SP(M)30-48/6-5.5	30	48	5.5	2850	76	220/380
150SP30-56/7-7.5	30	56	7.5	2850	76	380
150SP30-64/8-7.5	30	64	7.5	2850	76	380
150SP30-80/10-9.2	30	80	9.2	2850	76	380
150SP30-96/12-11	30	96	11.0	2850	76	380
150SP30-112/14-13	30	112	13.0	2850	76	380
150SP30-129/16-15	30	129	15.0	2850	76	380
150SP30-145/18-18.5	30	145	18.5	2850	76	380
150SP30-161/20-18.5	30	161	18.5	2850	76	380
150SP30-177/22-22	30	177	22	2850	76	380
150SP30-193/24-22	30	193	22	2850	76	380
150SP30-217/27-26	30	217	26	2850	76	380
150SP30-233/29-26	30	233	26	2850	76	380
150SP(M)46-16/2-3	46	16	3	2850	76	220/380
150SP(M)46-24/3-5.5	46	24	5.5	2850	76	220/380
150SP(M)46-32/4-5.5	46	32	5.5	2850	76	220/380
150SP46-40/5-7.5	46	40	7.5	2850	76	380
150SP46-48/6-9.2	46	48	9.2	2850	76	380
150SP46-56/7-11	46	56	11	2850	76	380
150SP46-64/8-13	46	64	13	2850	76	380
150SP46-81/10-15	46	81	15	2850	76	380
150SP46-97/12-18.5	46	97	18.5	2850	76	380
150SP46-113/14-22	46	113	22	2850	76	380
150SP46-129/16-26	46	129	26	2850	76	380
150SP46-145/18-30	46	145	30	2850	76	380
150SP46-161/20-30	46	161	30	2850	76	380
150SP(M)60-7/1-2.2	60	7	2.2	2850	76	220/380
150SP(M)60-15/2-4	60	15	4	2850	76	220/380
150SP(M)6022/3-5.5	60	22	5.5	2850	76	220/380
150SP60-29/4-7.5	60	29	7.5	2850	76	380
150SP60-37/5-9.2	60	37	9.2	2850	76	380
150SP60-44/6-11	60	44	11	2850	76	380
150SP60-51/7-13	60	51	13	2850	76	380
150SP60-59/8-15	60	59	15	2850	76	380
150SP60-66/9-18.5	60	66	18.5	2850	76	380
150SP60-73/10-18.5	60	73	18.5	2850	76	380
150SP60-80/11-22	60	80	22	2850	76	380
150SP60-88/12-22	60	88	22	2850	76	380
150SP60-95/13-26	60	95	26	2850	76	380
150SP60-102/14-26	60	102	26	2850	76	380
150SP60-110/15-30	60	110	30	2850	76	380
150SP60-117/16-30	60	117	30	2850	76	380

KYW, KYHL, KYL, YG Centrifugal Inline Pump



KYW Horizontal Centrifugal Pump



KYHL Chemical Pump



KYL Fresh Water Pump



YG Oil Pump

• Product Overview

KYW, KYL single-stage single-suction vertical centrifugal inline pumps are high-effective energy-saving products, which are successfully designed by ways of adopting the property of worldwide centrifugal pumps and the unique advantages of vertical pumps. It is strictly in accordance with ISO2858 world standard and the latest national standard JB/T53058-93. This Hydraulic pump develops into hot water pump (KYWR/KYLR), chemical engineering pump (KYHL) and oil pump (YG) according to different medium.

• Features

- The impeller is fixed up directly on the lengthening shaft, which results in short axial length. The pump and motor coincide perfectly, which effectively reduces the axial and radial force.
- Stable running, low noise, high concentricity of components. The impeller has the advantage of best dynamic and static balance, so no vibration at running.
- Easy to maintain. It is no need to remove the pipeline for check-out and maintenance.
- According to the installation condition of the worksite, the pump could be mounted vertically or horizontally etc. According to the requirements of the flow and head, the pumps can be mounted in parallel or in series.
- Materials of KYHL, KYHW chemical engineering pump: zg0q r1 8nil 2mo2ti (306), zg1qr18nil2mo2ti (307), zg1qr18ni9 (303), zg1q r18ni9ti (305).

• Working Conditions

- Maximum working pressure is less than 1.6MPa, which refers to the inlet pressure and the outlet pressure all together is less than 1.6MPa. The testing pressure is 2.5MPa. Cast steel will be used for the flow passage components and joint parts when the working pressure is larger than 1.6MPa.
- Proper medium: clear water without solid particles or the solid particle content is no more than 0.1% of the water and diameter is less than 0.2mm.
- The environment temperature should not be higher than 120°C. The relative humidity should not be more than 95%.

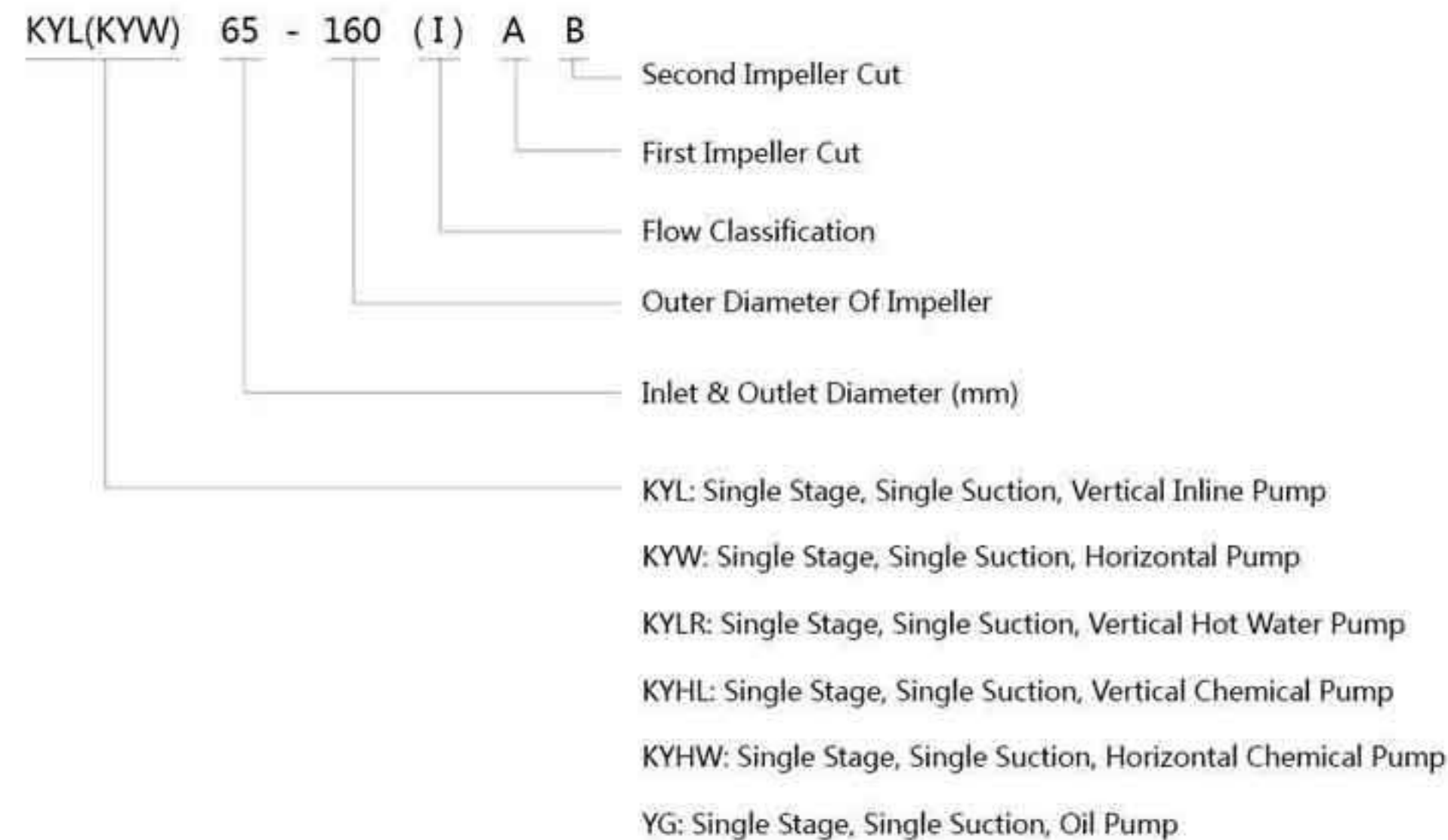
• Applications

- KYL (KYW) series vertical centrifugal pump is used to deliver clear water and other liquids similar to water in physical properties for industrial and cities water supply and drainage, high buildings booster water supply, garden irrigation, fire-fighting booster, remote water supply, warming systems, cycle booster of cold and hot water in bath rooms as well as for industrial equipments. The medium temperature should be lower than 80°C.
- KYLR (KYWR) series vertical hot water pump is used for the hot water booster cycle systems and the heat transport systems in heat-stations, residual heat utilization, metallurgy, chemistry, textile, wood-processing, paper-making, industrial boilers. The medium temperature is lower than 120°C.
- KYHL (KYHW) series vertical chemical pump is used to transport the corrosive liquids containing no solid particle. The viscosity of liquid is similar to water. It can be used in light and textile industries, petroleum,

chemical industries, metallurgy, electricity, paper-making, food, medicine and synthetic fiber industries etc. The working temperature is from 20°C to 120°C.

- YG series vertical non explosive oil pump is used to transport non-corrosive, inflammable, non explosive liquids for light, textile and mechanical industries etc. The medium temperature is from 20°C to 120°C and the density should be less than 1000kg/m³.

• Model Meaning



• Main Performance Parameters

Item	Model	Capacity Q		Head (m)	Eff. (%)	Speed (r/min)	Power (kW)	NPSH (m)
		m³/h	L/s					
001	15-80	1.1 1.5 2.0	0.30 0.42 0.55	8.5 8 7	26 34 34	2800	0.18	2.5
002	20-110	1.8 2.5 3.3	0.5 0.69 0.91	16 15 13.5	19 34 35	2800	0.37	2.5
003	20-160	1.8 2.5 3.3	0.5 0.69 0.91	33 32 30	19 25 23	2800	1.5	2.5
004	25-110	2.8 4 5.2	0.78 1.11 1.44	16 15 13.5	34 42 41	2900	0.75	2.5
005	25-125	2.8 4 5.2	0.78 1.11 1.44	20.6 20 18	28 36 35	2900	0.75	2.5
006	25-125A	2.5 4 4.5	0.69 1.11 0.25	17 32 17	16 32 17	2900	0.75	2.5
007	25-160	2.8 4 5.2	0.78 1.11 1.44	33 32 30	24 32 33	2900	1.5	2.5
008	25-160A	2.5 3.5 4.5	0.69 0.97 1.25	29 28 26	29 31 26	2900	1.1	2.5
009	32-125	4.5 5 6.5	1.25 1.39 1.80	20.5 20 18	29 38 38	2900	0.75	2.5
010	32-125A	3.3 4.5 5.7	0.92 1.25 1.58	17 16 14	17 37 14	2900	0.75	2.5
011	40-100	4.4 6.3 8.3	1.22 1.75 2.31	13.2 12.5 11.3	48 54 53	2900	0.75	2.5
012	40-100A	4 5.5 7	1.11 1.53 1.94	10.6 10 9	47 52.6 54	2900	0.75	2.5
013	40-125	4.4 6.3 8.3	1.22 1.75 2.31	20.5 20 18.5	36 46 43	2900	1.1	2.5
014	40-125A	4 5.5 7	1.11 1.53 1.94	16.3 16 15.5	40 44 42.5	2900	0.75	2.5
015	40-160	4.4 6.3 8.3	1.22 1.75 2.31	32.2 32 30.2	34 40 42	2900	2.2	2.5
016	40-160A	4 5.5 7	1.11 1.53 1.94	29 28 26.6	33 38 39	2900	1.5	2.5
017	40-160B	3.5 5 6.5	0.97 1.39 1.80	25 24 22.5	31.5 37 39	2900	1.1	2.5
018	40-200	4.4 6.3 8.3	1.22 1.75 2.31	50.5 50 48	26 33 35	2900	4	2.5
019	40-200A	4 5.5 7	1.11 1.53 1.94	44.6 44 42.7	26 31 32	2900	3	2.5
020	40-200B	3.5 5 6.5	0.94 1.39 1.80	39 38 36	29 29 29	2900	2.2	2.5
021	40-250	4.4 6.3 8.3	1.22 1.75 2.31	82 80 74	24 27.5 28	2900	7.5	2.5
022	40-250A	4 5.5 7	1.11 1.53 1.94	72.5 70 65	24 26 24.5	2900	7.5	2.5
023	40-250B	3.5 5 6.5	0.97 1.39 1.80	63 60 55	25 25 25	2900	4.0	2.5
024	40-100(I)	8.8 12.5 16.3	2.44 3.47 4.53	13.6 12.5 11.3	55 62 60	2900	1.1	2.5
025	40-100(I)A	8 11 14	2.22 3.05 3.89	10.5 10 9	60 60 60	2900	0.75	2.5
026	40-125(I)	8.8 12.5 16.3	2.44 3.47 4.53	21.5 20 17.8	49 58 58	2900	1.5	2.5
027	40-125(I)A	8 11 14	2.22 3.05 3.89	17.0 16 14.3	56 56 56	2900	1.1	2.5
028	40-160	8.8 12.5 16.3	2.44 3.47 4.53	33.3 32 29.8	45 52 53	2900	3.0	2.5
029	40-160(I)A	8 11 14	2.22 3.05 3.89	29 28 26.2	43 48 47	2900	2.2	2.5
030	40-160(I)B	7 10 13	1.94 2.78 3.61	26 24 20	50 50 50	2900	1.5	2.5

Item	Model	Capacity Q		Head (m)	Eff. (%)	Speed (r/min)	Power (kW)	NPSH (m)
		m³/h	L/s					
031	40-200(I)	8.8 12.5 16.3	2.55 3.47 4.53	51 50 48.5	38 46 49	2900	5.5	2.5
032	40-200(I)A	8 11 14	2.22 3.05 3.89	44.7 44 43	43 43 43	2900	4.0	2.5
033	40-200(I)B	7 10 13	1.94 2.78 3.61	40 38 35	44 44 44	2900	3.0	2.5
034	40-250(I)	8.8 12.5 16.3	2.44 3.47 4.53	81.8 80 77.5	29 36 40	2900	11	2.5
035	40-250(I)A	8 11 14	2.22 3.05 3.89	71.5 70 68	34 34 34	2900	7.5	2.5
036	40-250(I)B	7 10 13	1.94 2.78 3.61	62 60 57	34 34 34	2900	5.5	2.5
037	50-100	8.8 12.5 16.3	2.44 3.47 4.53	13.2 12.5 11.3	55 62 60	2900	1.1	2.5
038	50-100A	8 11 14	2.22 3.05 3.89	10.7 10 9	52 57 57	2900	0.75	2.5
039	50-125	8.8 12.5 16.3	2.44 3.47 4.53	21.5 20 17.8	49 58 58	2900	1.5	2.5
040	50-125A	8 11 14	2.22 3.05 3.89	17 16 14.3	47.5 53 54	2900	1.1	2.5
041	50-160	8.8 12.5 16.3	2.44 3.47 4.53	33.3 32 29.8	45 52 53	2900	3.0	2.5
042	50-160A	8 11 14	2.22 3.05 3.89	29 28 26.2	43 48 47	2900	2.2	2.5
043	50-160B	7 10 13	1.94 2.78 3.61	26 24 20	50 50 50	2900	1.5	2.5
044	50-200	8.8 12.5 16.3	2.44 3.47 4.53	51 50 48.5	38 46 49	2900	5.5	2.5
045	50-200A	8 11 14	2.22 3.05 3.89	44.7 44 43	37 43 43	2900	4.0	2.5
046	50-200B	7 10 13	1.94 2.78 3.61	40 38 35	44 44 44	2900	3.0	2.5
047	50-250	8 12.5 16.3	2.44 3.47 4.53	81.4 80 77.5	29 36 40	2900	11	2.5
048	50-250A	8 11 14	2.11 3.05 3.89	71.5 70 68	29 34 37	2900	7.5	2.5
049	50-250B	7 10 13	1.94 2.78 3.61	62 60 57	34 34 34	2900	5.5	2.5
050	50-100(I)	17.5 25 32.5	4.86 6.94 9.03	13.7 12.5 10.5	67 69 70	2900	1.5	3.0
051	50-100(I)A	16 22 28	4.44 6.11 7.78	10.8 10 8.7	65 68 65	2900	1.1	3.0
052	50-125(I)	17.5 25 32.5	4.86 6.94 9.03	22.0 20 17.0	63 67 65	2900	3.0	3.0
053	50-125(I)A	16 22 28	4.44 6.11 7.78	17.5 16 13.5	62 63 62	2900	2.2	3.0
054	50-160(I)	17.5 25 32.5	4.86 6.94 9.03	34.4 32 27.5	55 63 60	2900	4.0	3.0
055	50-160(I)A	16 22 28	4.44 6.11 7.78	30 28 24.5	57 59 58	2900	3.0	3.0
056	50-160(I)B	14 20 26	3.89 5.56 7.22	26 24 21	61 61 61	2900	2.2	3.0
057	50-200(I)	17.5 25 32.5	4.86 6.94 9.03	52.7 50 45.5	49 57 60	2900	7.5	3.0
058	50-200(I)A	16 22 28	4.44 6.11 7.78	46.2 44 41	52 55 57	2900	5.5	3.0
059	50-200(I)B	14 20 26	3.89 5.56 7.22	40.5 38 34	55 55 55	2900	4.0	3.0

• Main Performance Parameters

Item	Model	Capacity Q		Head (m)	Eff. (%)	Speed (r/min)	Power (kW)	NPSH (m)
		m³/h	L/s					
060	50-250(I)	9.0	4.86	81.8	39	2900	15	3.0
		12.6	6.94	80	50			
		16.2	9.13	76.5	55			
061	50-250(IIA)	4.44	71.4	71.4	42	2900	11	3.0
		6.11	70	70	47			
		7.78	68.0	68.0	51			
062	50-250(IIIB)	14	3.89	62	50	2900	7.5	3.0
		20	5.56	60				
		26	7.22	56				
063	50-315(I)	17.5	4.86	127	31	2900	30	3.0
		25	6.94	125	40			
		32.5	9.03	122	44			
064	50-315(IIA)	16	4.44	115	38	2900	22	3.0
		22	6.11	113				
		28	7.78	110				
065	50-315(IIIB)	14	3.89	103	37	2900	18.5	3.0
		20	5.56	101				
		26	7.22	98				
066	65-100	17.5	4.86	13.7	67	2900	1.5	3.0
		25	6.94	12.5	69			
		32.5	9.03	10.5	70			
067	65-100A	16	4.44	10.8	65	2900	1.1	3.0
		22	6.11	10	68			
		28	7.78	8.7	65			
068	65-125	17.5	4.86	22	63	2900	3.0	3.0
		25	6.94	20	67			
		32.5	9.03	17	65			
069	65-1425A	16	4.44	17.5	62	2900	2.2	3.0
		22	6.11	16	63			
		28	7.78	13.5	62			
070	65-160	17.5	4.86	34.4	55	2900	40	3.0
		25	6.94	32	63			
		32.5	9.03	27.5	60			
071	65-160A	16	4.44	30	57	2900	3.0	3.0
		22	6.11	28	59			
		28	7.78	24.5	58			
072	65-160B	14	3.89	26	61	2900	2	3.0
		20	5.56	24				
		26	7.22	21				
073	65-200	17.5	4.86	52.7	49	2900	7.5	3.0
		25	6.94	50	57			
		32.5	9.03	45.5	60			
074	65-200A	16	4.44	46.2	52	2900	5.5	3.0
		22	6.11	44	55			
		28	7.78	41	57			
075	65-200B	14	3.89	40.5	55	2900	5.5	3.0
		20	5.56	38				
		26	7.22	34				
076	65-250	17.5	4.86	81.8	39	2900	15	3.0
		25	6.94	80	50			
		32.5	9.03	76.5	55			
077	65-250A	16	4.44	71.4	42	2900	11	3.0
		22	6.11	70	47			
		28	7.78	68	51			
078	65-250B	14	3.89	62	50	2900	7.5	3.0
		20	5.56	60				
		26	7.22	56				
079	65-315	17.5	4.86	127	31	2900	30	3.0
		25	6.94	125	40			
		32.5	9.03	122	44			
080	65-315A	16	4.44	115	38	2900	22	3.0
		22	6.11	113				
		28	7.78	110				
081	65-315B	14	3.89	103	37	2900	18.5	3.0
		20	5.56	101				
		26	7.22	98				
082	65-100(I)	35	9.72	13.8	67	2900	3.0	3.5
		50	13.9	12.5	73			
		65	18.1	10	70			
083	65-100(IIA)	32	8.89	11	67	2900	2.2	3.5
		44	12.2	10	72			
		56	15.6	8.5	71			
084	65-125(I)	35	9.72	22	67	2900	5.5	3.5
		50	13.9	20	72.5			
		65	18.1	17	70			
085	65-100(IIA)	32	8.89	18	67	2900	4.0	3.5
		44	12.2	16	72			
		56	15.6	13	68			
086	65-160(I)	35	9.72	35	63	2900	7.5	3.5
		50	13.9	32	71			
		65	18.1	27.5	70			
087	65-160(IIA)	32	8.89	30	65	2900	5.5	3.5
		44	12.2	28	70			
		56	15.6	25	66			
088	65-100(IIIB)	28	7.78	27	69	2900	4.0	3.5
		40	11.1	24				
		52	14.4	20				
089	65-200(I)	35	9.72	53.5	58	2900	15	3.5
		50	13.9	50	67			
		65	18.1	44	68			

Item	Model	Capacity Q		Head (m)	Eff (%)	Speed (r/min)	Power (kW)	NPSH (m)
		m³/h	L/s					
090	65-200(I)A	32	8.89	47	57	2900	11	3.5
		44	12.2	44	66			
		56	15.6	40	68			
091	65-200(I)B	28	7.78	40.4	65	2900	7.5	3.5
		40	11.1	38				
		52	14.4	33				
092	65-250(I)	35	9.72	83	52	2900	22	3.0
		50	13.9	80	60			
		65	18.1	72	62			
093	65-250(I)A	32	8.89	73	53	2900	18.5	3.5
		44	12.2	70	57			
		56	15.6	64	63			
094	65-250(I)B	28	7.78	63	61	2900	15	3.5
		40	11.1	60				
		52	14.4	53				
095	65-315(I)	35	9.72	128	53	2900	37	3.0
		50	13.9	125	54			
		65	18.1	122	57			
096	65-315(I)A	32	8.89	116	42	2900	30	3.0
		44	12.2	113	53			
		56	15.6	110	56			
097	65-315(I)B	28	7.78	103	52	2900	22	3.0
		40	11.1	101				
		52	14.4	97				
098	80-100	35	9.72	13.8	67	2900	3.0	3.5
		50	13.9	12.5	73			
		65	18.1	10	70			
099	80-100A	32	8.89	11	67	2900	2.2	3.5
		44	12.2	10	72			
		56	15.6	8.5	71			
100	80-125	35	9.72	22	67	2900	5.5	3.5
		50	13.9	20	72.5			
		65	18.1	17	70			
101	80-125A	32	8.89	18.0	67	2900	4.0	3.5
		44	12.2	16	72			
		56	15.6	13	68			
102	80-160	35	9.72	35	63	2900	7.5	3.5
		50	13.9	32	71			
		65	18.1	27.5	70			
103	80-160A	32	8.89	30	65	2900	5.5	3.5
		44	12.2	28	70			
		56	15.6	25	66			
104	80-160B	28	7.78	27	69	2900	4.0	3.5
		40	11.1	24				
		52	14.4	20				
105	80-200	35	9.72	53	58	2900	15	3.5
		50	13.9	50	67			
		65	18.1	44	68			
106	80-200A	32	8.89	47	57	2900	11	3.5
		44	12.2	44	66			
		56	15.6	40	68			
107	80-200B	28	7.78	40.5	65	2900	7.5	3.5
		40	11.1	38				
		52	14.4	23				
108	80-250	35	9.72	83	52	2900	22	3.0
		50	13.9	80	60			
		65	18.1	72	62			
109	80-250A	32	8.89	73	53	2900	18.5	3.0
		44	12.2	70	57			
		56	15.6	64	63			
110	80-250B	28	7.78	63	61	2900	15	3.0
		40	11.1	60				
		52	14.4	53				
111	80-315	35	9.72	128	43	2900	37	3.0
		50	13.9	125	54			
		65	18.1	122	57			
112	80-315A	32	8.89	116	42	2900	30	3.0
		44	12.2	113	53			
		56	15.6	110	56			
113	80-315B	28	7.78	103	52	2900	22	3.0
		40	11.1	101				
		52	14.4	97				
114	80-100(I)	70	19.4	13.6	66	2900	5.5	4.5
		100	27.8	12.5	76			
		130	36.1	11	75			
115	80-100(I)A	64	17.8	11	67	2900	4.0	4.5
		88	24.4	10	75			
		112	31.1	8.5	76			
116	80-125(I)	70	19.4	23.5	70	2900	11	4.5
		100	27.8	20	76			
		130	36.1	14	65			
117	80-125(I)A	64	17.8	19	74	2900	7.5	4.5
		88	24.4	16	70			
		112	31.1	11	65			
118	80-160(I)	70	19.4	36.5	70	2900	15	4.5
		100	27.8	32	76			
		130	36.1	24	65			
119	80-160(I)A	64	17.8	31	68	2900	11	4.5
		88	24.4	28	74			
		112	31.1	22	70			