

TERAL

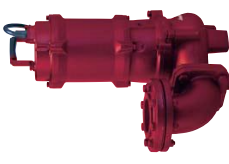
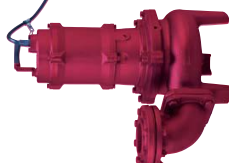
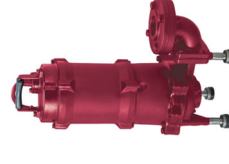
Submersible Pumps

Sewage, wastewater, drainage and flood control

50Hz



Japan since 1918

Model	APL Waste water pump	APV Sewage pump	ASU Waste water and Sewage pump	ABO Sewage pump	AVC Sewage pump	ACU Sewage pump	AGO Grinder pump
Photo							
Impeller	Vortex Semi-open	Vortex (APV, APVN, APVNL) Semi-open (APVH)	Semi-open	Semi-open (ABOC, ABOH) Enclosed-channel non-clog (ABO(EI))	Vortex (AVC, AVCL) Semi-open (AVCH)	Vortex	Semi-open
Liquid	"Waste water Sump drainage dewatering"	Waste water Sewage water Industrial waste water	Waste water Sewage water Drainage water	Waste water Sewage water	Waste water Sewage water	Waste water Sewage water	Residential waste water Sewage water
Coverage	Disc diameter (mm) Output (kW) Solid passage (mm)	50 - 80 - 100 0.4-3.7 7-20	50 - 80 - 100 1.5-11 20	80 - 100 - 150 - 200 - 250 - 350 - 400 1.5-45 50-120	50 - 80 - 100 0.4-11 30-76	50 - 80 - 100 0.4-7.5 50-100	32 - 50 1.0-3.7 N/A
Material	Casing Impeller Shaft Mechanical seal	FC200 FC200 SUS410 (0.4 - 1.1kW) SUS403 (1.5 - 3.7kW) SIC/SIC	FC200 FC200 SUS420J2 (≤11kW) SUS403 (≤7.5kW) SIC/SIC	FC200 FC200 FC200 (Heat treated FC200/ABOC) SUS420J2 (ABOC≤11kW, ABOE≤5.5kW) SUS403 (ABOC, ABOH, ABOE≤3.7kW) SIC/SIC	FC200 FC200 SUS410 (≤0.75kW), SUS403 (1.5-7.5kW) SUS420J2 (≤11kW) SIC/SIC	FC200 FC200 SUS403 (0.4 - 3.7kW) SUS420J2 (≤5.5kW) SIC/SIC	FC200 FC200 (Cutter SUS440C) SUS403 SIC/SIC
Page	3	5	7	9	13	15	17

Model	ACS Amphibious dewatering pump	APLS Stainless waste water pump	APVS Stainless sewage pump	ADS Construction drainage	ADM Agitator pump	AAX Large volume water pump	AAXL Submersible axial pump	SUMP Residential & commercial pump
Photo								
Impeller	Enclosed-channel	Semi-open	Semi-open	Semi-open Enclosed	Semi-open (80ADM-55.5) Enclosed	Axial-flow Mix-flow (≥11kW)	Axial-flow	Semi-open
Liquid	Agriculture irrigation Other drainage	Sanitary sewer Acid/Alkaline/Corrosive Between PH5-11	Sanitary sewer Acid/Alkaline/Corrosive Between PH5-11	Waste water Sewage water Sandy, waste water	Dewatering fluid containing solid sediment	Agriculture irrigation Aquaculture water River water	Waste water, industry drainage, Agriculture irrigation Aquaculture water	Dirty water from sumps, Clean water, Basins and tanks
Coverage	Disc diameter (mm) Output (kW) Solid passage (mm)	50 - 80 - 100 0.4 - 11 10-20	50 - 80 - 100 0.4-11 30-50	50 - 80 - 100 - 150 1.1-7.5 10	80 - 100 - 150 1.5-7.5 10	100 - 150 - 200 - 250 - 300 0.4-11 10-23	550-700 37-75 N/A	25-32 0.1-0.25 4
Material	Casing Impeller Shaft Mechanical seal	FC200 Bronze (≤1.1kW) Chrome steel (≥1.5kW) SUS403(≤2.2kW) SUS304(≤3.7kW) SIC/SIC	SCS14 SCS14 SUS316 SUS630 (≥11kW) SIC/SIC	FC200 HICFC SUS403 SUS304 ≥3.7kW SIC/SIC	FC200 HICFC SUS403 (≤2.2kW) SUS304 (≥3.7kW) SIC/SIC	FC200 ALBC3 Bronze SUS304 CA/CE (5.5-11kW) SIC/SIC (0.4-2.2kW)	FC200 SCS13 SUS420J2 SIC/SIC & SIC/SIC	ASA(≤0.15kW), PP(0.25kW) ABS(≤0.15kW), PA(0.25kW) SUS410 CA/CE(≤0.15kW), SIC/SIC(0.25kW)
Page	19	21	23	25	27	29	31	33



APPLICATIONS

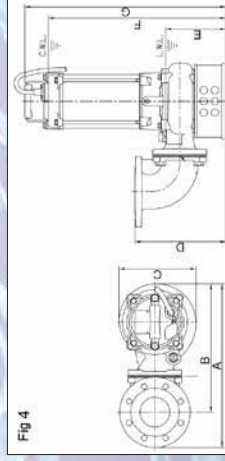
- Drainage in the digestion tank
- Waste water, Sump drainage
- Drainage of spring water and stagnant water in the construction field
- Dewatering for fish pond or basement and cellars

FEATURES

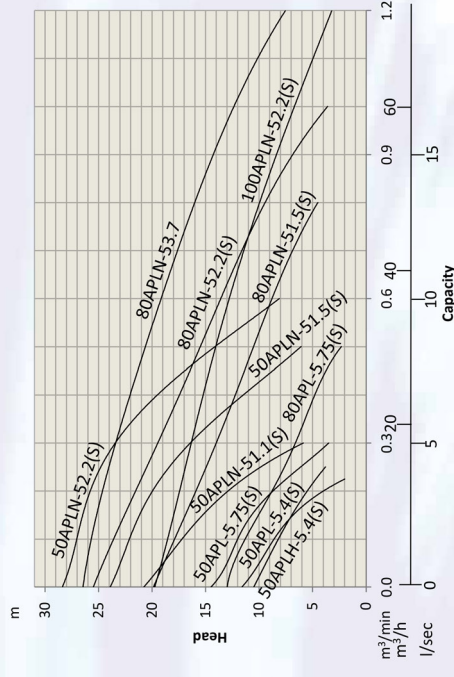
- A precisely manufactured motor is achieved utilizing the highest standard of quality control. To ensure 100% quality manufactured motor with stable performance and highest efficiency. All rotors adopt heat treatment method for drive shaft assembling and stator winding impregnated with varnish and baked in industrial oven.
- Standard accessories include: VCT cable with an epoxy resin sealed water resistant cable base, Auto Cut motor thermal protector, double mechanical seals and lip seal design.

SPECIFICATION

Disc diameter(mm)	50 ~ 80 · 100
Liquid temp	0~40°C
Liquid nature	Waste water
Max.depth	30M
Impeller	Semi-open & Vortex
Mech. seal	Double mechanical seals
Bearing	Ball type bearing
Upper cover	FC200
Impeller	FC200 (50APL-5.4(S)/PA)
Casing	FC200
Casing cover	FC200
Mech. seal	SIC/SIC
Type	Dry type
Insulation	B class (F Class $\geq 1.1kW$)
Frequency · Pole	50Hz · 2P
Protector	Auto-cut (50APL-5.4S: Overheat protector)
Frame	SUS304
Main shaft	0.4 ~ 1.1kW : SUS410 1.5 ~ 2.2kW : SUS403
Cable	VCT or HCVRN-F or SOW
Optional	Float switch, Auto setter APLN Impeller, SUS316

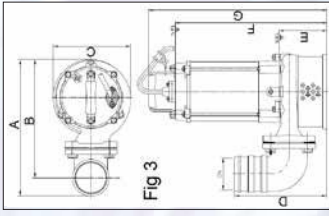


SELECTION CHART

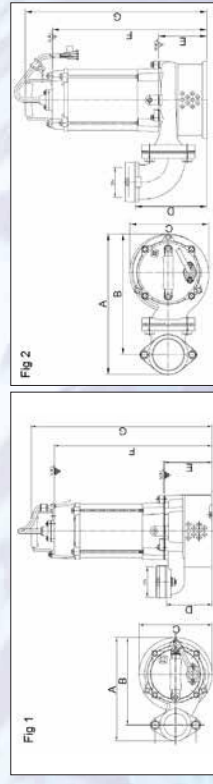


PERFORMANCE SPECIFICATION

Pole-P	Impeller Type	Dis. mm	Output kW	Phase ϕ	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Semi-open	50	0.4	1	Capacitor	50APL-5.4S	0.1	8	7.5	12
				1	Capacitor	50APL-5.4S	0.1	8	7.5	12
				1	Capacitor	50APL-5.4S	0.15	7	10	16
				3	Direct	50APLN-5.4	0.15	7	10	14
	Vortex	50	0.75	1	Capacitor	50APLN-5.75S	0.18	10	10	17
				1	Capacitor	50APLN-5.75	0.18	10	10	15
				1.1	1	Capacitor	50APLN-5.15	14.5	7	20
				3	Direct	50APLN-5.1	0.16	14.5	7	18
			1.5	1	Capacitor	50APLN-5.15S	0.25	18.5	10.5	31
				3	Direct	50APLN-5.1	0.25	18.5	10.5	27
				3	Direct	50APLN-5.25S	0.3	25.5	10.5	35
				3	Direct	50APLN-5.25	0.3	25.5	10.5	30
			0.75	1	Capacitor	80APL-5.75S	0.3	18.5	10.5	42
				3	Direct	80APL-5.75	0.3	18.5	10.5	37
				3	Direct	80APLN-5.15S	0.5	10.5	10.5	33
				1	Capacitor	80APLN-5.15	0.5	10.5	10.5	29
	Semi-open	80	1.5	3	Direct	80APLN-52.25	0.5	15.5	10.5	37
				3	Direct	80APLN-52.25	0.5	15.5	10.5	32
				2.2	3	Direct	80APLN-52.2	0.5	15.5	37
				3.7	3	Direct	80APLN-53.7	0.6	19	35
		100	2.2	1	Capacitor	100APLN-52.25	0.7	11.5	20	37
				3	Direct	100APLN-52.2	0.7	11.5	20	32



DIMENSIONS



MODEL	Fig	DN	A	B	C	D	E	F	G	CABLE LENGTH
50APL-5.4(S)	1	PF / NPT	225	190	161	86	88	316	371	5000
50APLN-5.4(S)	1	PF / NPT	245	207	173	109	100	373	428	5000
50APL-5.75(S)	1	PF / NPT	245	207	173	109	100	373	428	5000
50APLN-5.75(S)	1	PF / NPT	262	224	187	91	90	373	428	8000
50APLN-5.1	1	PF / NPT	262	224	187	91	90	353	408	8000
50APLN-5.15S	1	PF / NPT	262	244	207	138	141	517	580	8000
50APLN-5.15	1	PF / NPT	262	244	207	138	141	436	499	8000
50APLN-5.25S	1	PF / NPT	262	244	207	138	141	517	580	5000
50APLN-5.25	1	PF / NPT	262	244	207	138	141	436	499	5000
80APL-5.75(S)	1	PF / NPT	278	224	173	135	130	402	456	5000
80APLN-5.15S	2	PF / NPT	391	337	208	214	152	528	591	8000
80APLN-5.15	2	PF / NPT	391	337	208	214	152	447	510	8000
80APLN-5.25S	2	PF / NPT	391	337	208	214	152	540	603	8000
80APLN-5.25	2	PF / NPT	391	337	208	214	152	447	510	8000
80APLN-5.7	4	PT / NPT	440	346	207	244	162	477	540	8000
100APLN-52.25	3	100	389	336	207	275	162	536	601	8000
100APLN-52.2	3	100	389	336	207	275	162	457	520	8000

APV

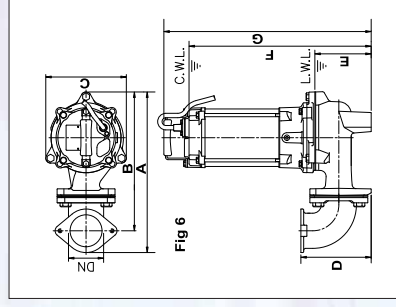


APPLICATIONS

- Drainage of sewage from the building basements
- Emptying of septic tanks, cesspits and sewage pump station.
- Drainage of sewage from industrial process factories in the construction field
- Pumping surface and drainage water from garages and sprinkler systems

■ FEATURES

- All rotors adopt heat treatment method for drive shaft assembling and stator winding impregnated with varnish and heat dried in industrial oven.
- Available impellers are Vortex and non-clog Semi-Open.
- Standard accessories include: VCT cable with an epoxy resin sealed water resistant cable base, Auto Cut motor thermal protector, double mechanical seals and lip seals design.



SPECIFICATION

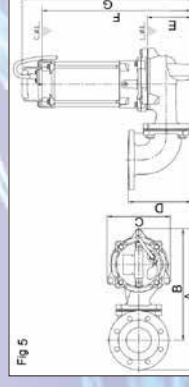
Pumping liquid	Disc.diameter(mm)		50 - 80
	Liquid temp		0~40℃
Liquid nature	Waste water, Sewage water and industrial waste water		
	Max.depth	30M	
Pump	Structure	Impeller	Semi-open (APVH)
		Mech. seal	Vortex (APV, APVN, APVNL)
	Material	Bearing	Double mechanical seals
		Upper cover	Ball type bearing
	Material	Impeller	FC200
		Casing	FC200
		Casing cover	FC200
		Mech. seal	SiC/SiC
	Type	Dry type	
	Motor	Insulation	B class (F Class ≥1.5kW)
Frequency • Pole		50HZ/2P	
Protector		Auto-cut (50APV.5.4S; Overheat protector)	
Material		Frame	SUS304
	Main shaft	0.4 - 0.75kW : SUS410 1.5~3.7kW : SUS403	
Optional	Cable	VCT or H07RN-F or SOW	
		Float switch, Auto switch, APVN Impeller, SUS316	

APV TYPE IMPELLER

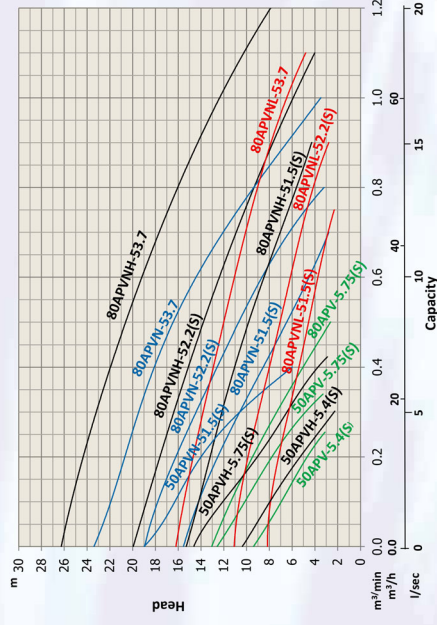
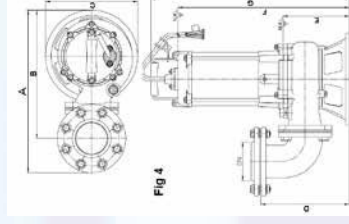
This impeller can generate rapid rotating vortex to handle fluid mixed with long fiber, the majority of abrasive solids do not touch impeller to minimize impeller wearing. The reversed rotation of 3 rated phase APV type impeller will result in higher than rated current, which may cause property or personal damage. In this case, please rewire the cable connection for proper operation.

© APVH TYPE IMPELLER

Semi-open impeller cutting foreign particles, and preventing clog by solid media.



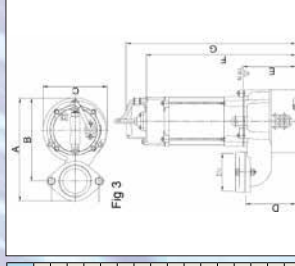
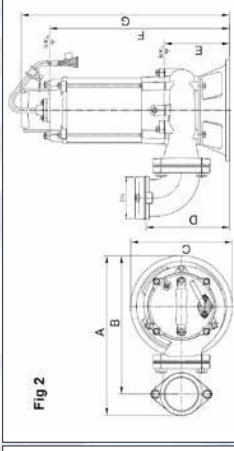
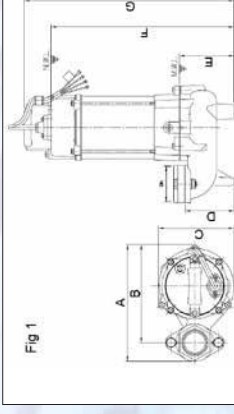
SELECTION CHART



PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. (mm)	Output (l/min)	Phase	Start Frequency (Hz)	Model	Capacity (m³/h)	Head (m)	Solid passage (%)	Weight (kg)	
2	Vortex	50	0.4	1	Capacitor	80APV4-4S	0.15	8	35	16	
			0.75	2	Capacitor	80APV4-7S	0.2	8	35	17	
			1.5	3	Direct	80APV4-7S	0.2	8	35	16	
			2.2	3	Capacitor	80APV4-7S	0.2	8	35	16	
		80	1.5	1	Capacitor	80APV4-51.5	0.3	14	25	35	37
			2.2	1	Capacitor	80APV4-7S	0.3	14	25	35	37
			3.7	1	Capacitor	80APV4-7S	0.3	14	25	35	37
			5.0	1	Capacitor	80APV4-7S	0.3	14	25	35	37
	Semi-open	50	0.4	1	Capacitor	80APVH-51.5S	0.4	8.5	50	32	17
			0.75	2	Capacitor	80APVH-51.5S	0.4	8.5	50	29	16
			1.5	3	Direct	80APVH-51.5	0.4	8.5	50	29	16
			2.2	3	Direct	80APVH-51.5	0.4	8.5	50	29	16
		80	3.7	1	Capacitor	80APVH-52.2	0.4	12.5	50	30	30
			5.0	1	Capacitor	80APVH-52.2	0.4	12.5	50	30	30
			1.5	3	Capacitor	80APVH-51.7	0.5	16.5	50	33	33
			2.2	3	Capacitor	80APVH-51.7	0.5	16.5	50	33	33

DIMENSIONS



MODEL	Fig	DN	A	B	C	D	E	F	G	CAR LENGTH
50APV-5.4(S)	1	PF NPT	237	199	154	99	111	371	425	5000
50APV-5.7(S)	1	PF NPT	237	199	154	99	111	371	425	5000
50APV-5.1(S)	1	PF NPT	288	250	202	88	100	483	546	8000
50APV-5.1.1	1	PF NPT	288	250	202	88	100	415	477	8000
80APV-5.7(S)	3	PF NPT	276	224	173	135	130	402	456	5000
80APV-5.1.5S-52.28	6	PF NPT	402	348	202	176	140	525/537	588/600	8000
80APV-5.1.5S-2.1	6	PF NPT	402	348	202	176	141	456	519	8000
80APV-5.7	5	PF NPT	453	358	202	140	140	476	539	8000
80APV-5.1.5S-52.28	6	PF NPT	407	353	221	215	193	577/589	640/652	8000
80APV-5.1.5S-2.2	6	PF NPT	407	353	221	215	193	506	571	8000
80APV-5.3.7	5	PF NPT	458	363	221	240	193	526	591	8000
80APV-5.4(S)	2	PF NPT	276	238	235	143	145	404	459	5000
50APV-5.1(S)	2	PF NPT	276	238	235	143	145	404	459	5000
80APV-5.1.5S-52.25	2	PF NPT	417	363	260	218	163	527/539	590/602	8000
80APV-5.1.5S-2.2	2	PF NPT	417	363	260	218	163	495	521	8000
80APV-5.3.7	4	PF NPT	468	373	260	243	193	476	541	8000

ASU



APPLICATIONS

- Waste water drainage for all industries.
- Extraction of water from river and lake.
- Pumping surface water, drainage water and flood water

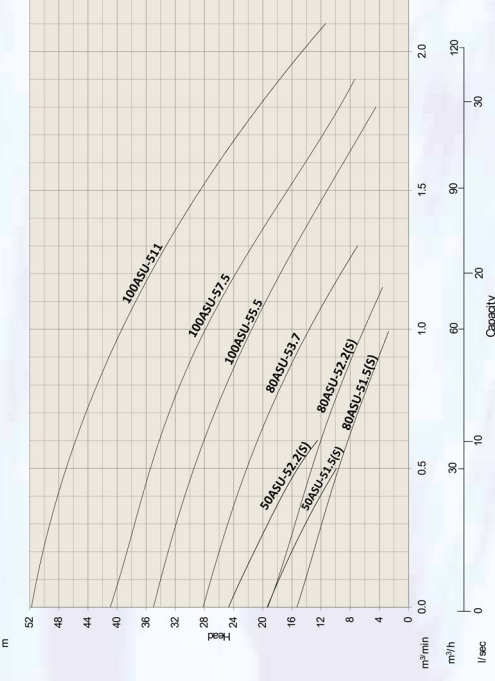
FEATURES

- Entire cast iron structure and compact design.
- Equipped with AutoCut, silicon carbide double mechanical seals, epoxy cable base treatment.
- Compatible with guide rail system.
- High head and high efficiency suitable for a wide range of applications.

SPECIFICATION

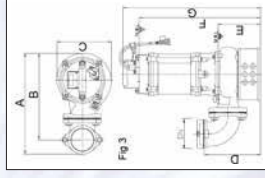
Disc diameter(mm)	50 - 80 - 100
Liquid temp	0-40°C
Liquid nature	Waste water and sewage
Max depth	30M
Impeller	Semi-open
Mech. seal	Double mechanical seals
Bearing	Ball type bearing
Upper cover	FC200
Impeller	FC200
Casing	FC200
Mech. seal	CA/CE & SIC/SIC
Type	Dry type
Insulation	B class (≤2.2kW) F class (≥3.7kW)
Frequency · Pole	50Hz · 2P
Protector	Auto-cut(≤7.5kW)MTP &WD(≥11kW)
Frame	FC200
Main shaft	SUS420J2 (≥11kW) SUS303 (≤7.5kW)
Cable	VCT
Optional	Float switch (≤2.2kW) Water detector Auto setter

SELECTION CHART

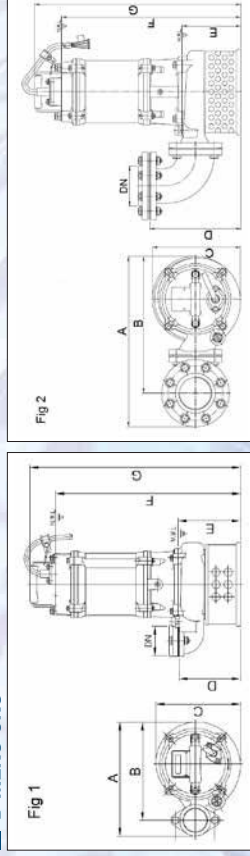


PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase φ	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Semi-open	50	1.5	1	Capacitor	50ASU-51.5S	0.4	12	20	35
						50ASU-51.5	0.4	12	20	31
						50ASU-52.2S	0.4	17.5	20	38
			2.2	3	Direct	50ASU-52.2	0.4	17.5	20	34
						80ASU-51.5S	0.6	8.5	20	37
						80ASU-51.5	0.6	8.5	20	32
	80	80	2.2	3	Capacitor	80ASU-52.2S	0.6	12.5	20	39
						80ASU-52.2	0.6	12.5	20	35
						80ASU-53.7	0.6	20.5	20	49
			3.7	3	Direct	100ASU-55.5	1	21.5	20	75
						100ASU-57.5	1	28	20	81
						100ASU-511	1	39.5	20	91

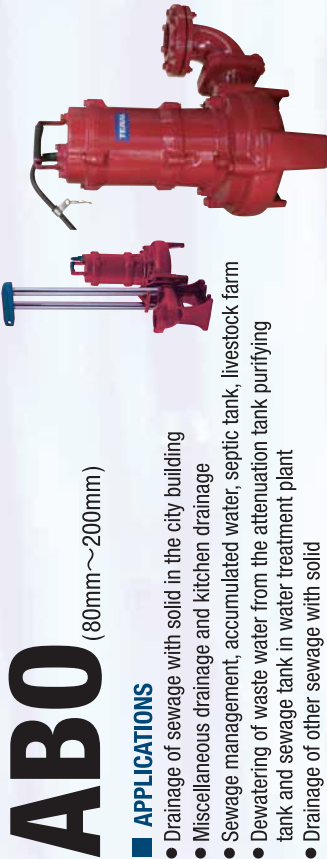


DIMENSIONS



MODEL	Fig	DN	A	B	C	D	E	F	G	CABLE LENGTH
50ASU-51.5S	1	PF	278	240	212	150	150	502	565	8000
50ASU-51.5	1	PF	278	240	212	150	150	451	514	8000
50ASU-52.2S	1	PF	278	240	212	150	150	535	598	8000
50ASU-52.2	1	PF	278	240	212	150	150	451	514	8000
80ASU-51.5S	3	PF	391	337	214	217	162	512	575	8000
80ASU-51.5	3	PF	391	337	214	217	162	457	520	8000
80ASU-52.2S	3	PF	391	337	214	217	162	539	602	8000
80ASU-52.2	3	PF	391	337	214	217	162	457	520	8000
80ASU-53.7	2	PT 3	470	376	242	250	176	510	578	8000
80/100ASU-55.5	2	PT 4	534(565)	440(455)	290	271(282)	198	590	669	10000
80/100ASU-57.5	2	PT 4	534(565)	440(455)	290	271(282)	198	590	669	10000
80/100ASU-511	2	PT 4	534(565)	440(455)	290	271(282)	198	630	729	10000

SEWAGE PUMPS AND HEAVY DUTY SEWAGE PUMPS



ABO

(80mm~200mm)

APPLICATIONS

- Drainage of sewage with solid in the city building
- Miscellaneous drainage and kitchen drainage
- Sewage management, accumulated water, septic tank, livestock farm
- Dewatering of waste water from the attenuation tank purifying tank and sewage tank in water treatment plant
- Drainage of other sewage with solid

FEATURES

- International standard design: VCT cable, autocut, dry motor, silicon carbide mechanical seal, high grade cast iron offering highest quality and performance.
- Superior abrasion resistant mechanical seals made of silicon carbide to ensure the best seal effect.
- Oil seal mounted outside of seal chamber prevents solids build-up around seal surface.
- Compatible with Guide Rail System, which allows convenient remote installation and replacement of the pump without the need to enter the pit.

AUTO CUT

Equipped with an automatically reset motor protector, which prevents the motor from burning due to high temperature / high ampere and / or locked impeller.

MTP-Motor Thermal Protector

A Motor Thermal Protector is embedded in the windings of the motor. The MTP will transmit a signal to a control panel when windings temperature reaches preset threshold.

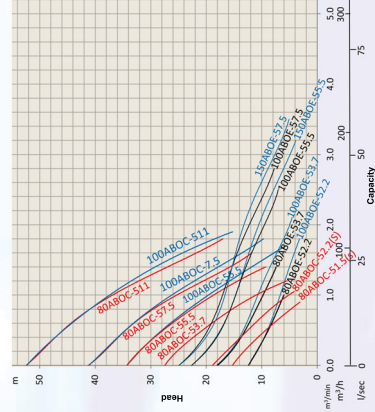
IMPELLER

- * ABO, ABOC Semi open impeller enable cutting of delicate materials to prevent clogging.
- * ABOG Enclosed channel non clog impeller allows large passage preventing clogging and allows effective drainage / dewatering for higher head applications with solids laden media.

SPECIFICATION

Type	ABOC	ABOH	ABOE
Disc Diameter(mm)	80-100	80-100	100-150/200-250
Liquid temp	Waste water and sewage	0~40°C	Industrial waste water and sewage
Max. depth	20M		
Impeller	Semi-open	Semi-open	Enclosed
Mech. seal	Double mechanical seals		
Bearing	Ball type bearing		
Upper cover	FC200		
Impeller	Heat Treated FC200	FC200	FC200
Cutter	Tungsten Blade	N.A.	N.A.
Agitator	N.A.	N.A.	N.A.
Casing	FC200		
Mech. seal	SiC/SiC		
Type	Dry type		
Insulation	F class (H Class $\geq 5.5kW$) B class (F class $\geq 3.7kW$)		
Frequency	50Hz ~ 2P	50Hz ~ 4P	50Hz ~ 4P
Protector	Auto-cut $\leq 7.5kW$	Motor thermal protector $\leq 11kW$	
Frame	FC200		
Main shaft	SUS403 ($\leq 7.5kW$) SUS4202 ($\geq 11kW$)	SUS403	SUS403 ($\leq 3.7kW$) SUS4202 ($\geq 5.5kW$)
Cable	VCT or HO7RN-F or SOW / HVCT ($\geq 5.5kW$)		
Optional	Water detector Water detector Float switch (ABO $\leq 1.5kW$ and ABOC)		

SELECTION CHART



PERFORMANCE SPECIFICATION

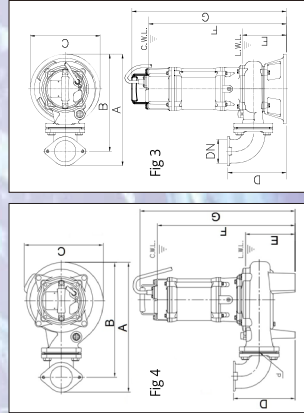
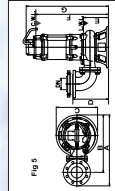
Pole P	Impeller Type	Dis. mm	Output kW	Phase	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
4	Semi-open	80	1.5	3	Direct	ABOHC-51.5	0.5	8	50	47
			2.2	3	Direct	ABOHC-52.2	0.6	10	50	59
			3.0	3	Direct	ABOHC-53.0	0.8	12	50	67
			3.7	3	Direct	ABOHC-53.7	1.0	15	50	67
2	Semi-open	100	2.2	3	Direct	ABOHC-52.2	0.8	10	50	67
			3.0	3	Direct	ABOHC-53.0	1.0	12	50	67
			3.7	3	Direct	ABOHC-53.7	1.2	15	50	67
			4.5	3	Direct	ABOHC-54.5	1.5	18	50	67
		150	7.5	3	Direct	ABOHC-57.5	1.5	12	75	110
			11.0	3	Direct	ABOHC-58.5	2.0	15	75	110
			15.0	3	Direct	ABOHC-59.5	2.5	18	75	110
			22.0	3	Direct	ABOHC-62.0	3.0	22	75	110
		200	15.0	3	Direct	ABOHC-59.5	2.5	18	100	160
			22.0	3	Direct	ABOHC-62.0	3.0	22	100	160
			30.0	3	Direct	ABOHC-65.0	4.0	25	100	160
			37.0	3	Direct	ABOHC-68.0	4.5	28	100	160
		250	22.0	3	Direct	ABOHC-62.0	3.0	22	125	200
			30.0	3	Direct	ABOHC-65.0	4.0	25	125	200
			37.0	3	Direct	ABOHC-68.0	4.5	28	125	200
			45.0	3	Direct	ABOHC-70.0	5.0	30	125	200
2	Semi-open	80	2.2	3	Direct	ABOHC-52.2	0.8	10	50	67
			3.0	3	Direct	ABOHC-53.0	1.0	12	50	67
			3.7	3	Direct	ABOHC-53.7	1.2	15	50	67
			4.5	3	Direct	ABOHC-54.5	1.5	18	50	67
		100	7.5	3	Direct	ABOHC-57.5	1.5	12	75	110
			11.0	3	Direct	ABOHC-58.5	2.0	15	75	110
			15.0	3	Direct	ABOHC-59.5	2.5	18	75	110
			22.0	3	Direct	ABOHC-62.0	3.0	22	75	110
		150	15.0	3	Direct	ABOHC-59.5	2.5	18	100	160
			22.0	3	Direct	ABOHC-62.0	3.0	22	100	160
			30.0	3	Direct	ABOHC-65.0	4.0	25	100	160
			37.0	3	Direct	ABOHC-68.0	4.5	28	100	160



- ABOC
* ABOC equipped with a 2 pole motor, heat treated of bottom casing cover and impeller.
- * Cutter with tungsten cutting foreign particles effectively and preventing clog by solid media which allow larger solid passage.

WD WATER DETECTOR

- * Pumps when equipped with this device in the mechanical seal chamber to detect any water intrusion or infiltration.
- * The device will send a warning signal to the control panel to prevent motor failure induced by water ingress and save maintenance cost.



DIMENSIONS

MODEL	Fig	DN	A	B	C	D	E	F	G	Unit: mm
ABOHC-51.5	4	80	474	420	288	226	182	582	645	8000
ABOHC-52.2	4	80	474	420	288	226	182	582	645	8000
ABOHC-53.0	4	80	550	456	313	251	184	529	603	8000
ABOHC-53.7	1	80/100	550/581	456/471	313	251/263	184	529	603	8000
ABOHC-54.5	1	80/100	521/551	426/441	287	224/235	241	566	660	8000
ABOHC-57.5	1	80/100	536/569	444/459	304	224/235	241	566	660	8000
ABOHC-58.5	1	100/150	637/713	543/573	374	320/395	276	687	786	10000
ABOHC-59.5	1	100/150	743/803	633/663	447	341/371	286	703	816	10000
ABOHC-62.0	1	100/150	838/839	680/723	450	520/539	444	951	1076	10000
ABOHC-65.0	6	150/200	838/839	680/723	450	520/539	444	951	1076	10000
ABOHC-68.0	1	100/150	778/838	668/698	476	352/382	297	874	1019	10000
ABOHC-70.0	1	100/150	778/838	668/698	476	352/382	297	874	1019	10000
ABOHC-75.0	6	150/200	865/920	725/750	485	533/543	450	987	1132	10000
ABOHC-82.0	6	150/200	865/920	725/750	485	533/543	450	1027	1172	10000
ABOHC-85.0	6	200/250	1010/1073	840/870	524	613/628	495	1032	1172	10000
ABOHC-92.0	6	200/250	1010/1073	840/870	524	613/628	495	1032	1172	10000
ABOHC-95.0	3	80	417	363	260	218	163	513	540	8000
ABOHC-98.0	3	80	417	363	260	218	163	488	521	8000
ABOHC-105.0	5	80	498	403	290	250	176	510	578	8000
ABOHC-110.0	5	80/100	565/598	471/486	345	271/282	198	590	689	10000
ABOHC-115.0	5	80/100	565/598	471/486	345	271/282	198	590	689	10000
ABOHC-120.0	5	80/100	565/598	471/486	345	271/282	198	630	729	10000

ABO

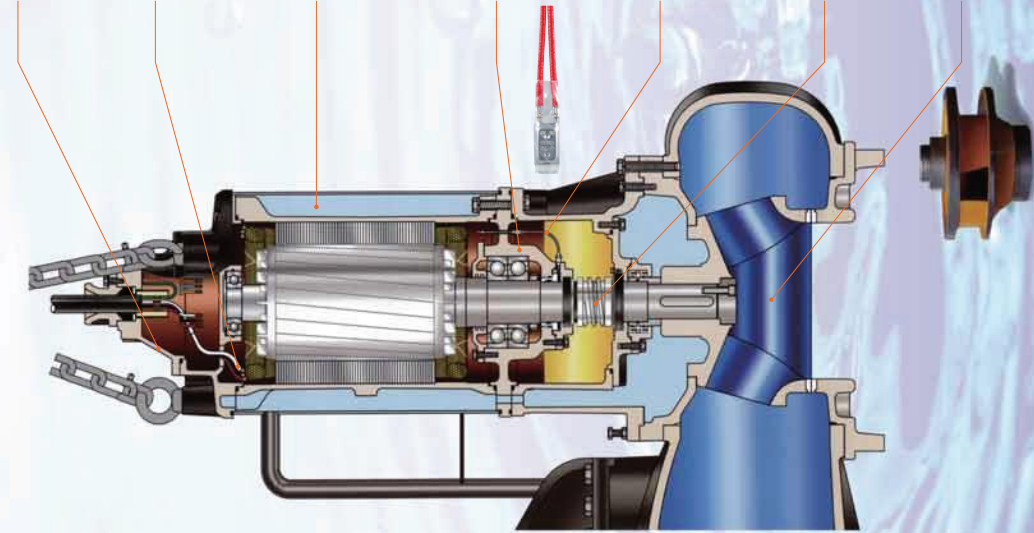
(250mm~400mm)

SPECIFICATION

Discharge(mm)	250~400
Liquid tempo	0~40°C
Liquid nature	Aquatic life water・Industrial water and sewage
Max.depth	30m
Impeller	Enclosed channel non-clog impeller
Mech. seal	Double Mechanical seal
Protector	WD water detector
Structure	Upper cover FC200
Bearing	Heavy duty bearing FC200
Casing	Stainless steel
Mech. seal	Silicon carbide
Insulation, Pole	Dry motor F class, 4P/6P
Frequency	50Hz
Protector	Motor thermal protector(MTP)
Frame	FC200
Main Shaft	S304026
Cable	3P/NC1

SPECIAL SPECIFICATION

Optional Material	• Stainless steel impeller
Optional Devices/ Accessories	• Bearing Thermal Detector • Auto Setter



Cable base
The copper wires in the cable are exposed and coated with Epoxy resin to prevent water or moisture intrusion via damaged cable or wires. The reinforcement guarantees 100% water- proof and moisture-free.

Motor over-heat protector
The built-in MTP (Motor Thermal Protector) will detect abnormal rise of temperature in motor winding and cut off power supply automatically when the excessive heat reaches preset threshold to protect the motor from overheating.

Cooling jacket
Cooling Jacket allows the flow of water between motor frame and outer cover to form a circulating cooling system, which enables the pump to drain water to a lower level, increasing the operational range of the pump. (Pumps over 37kW or 50-HP are equipped with Cooling Jacket as a standard.)

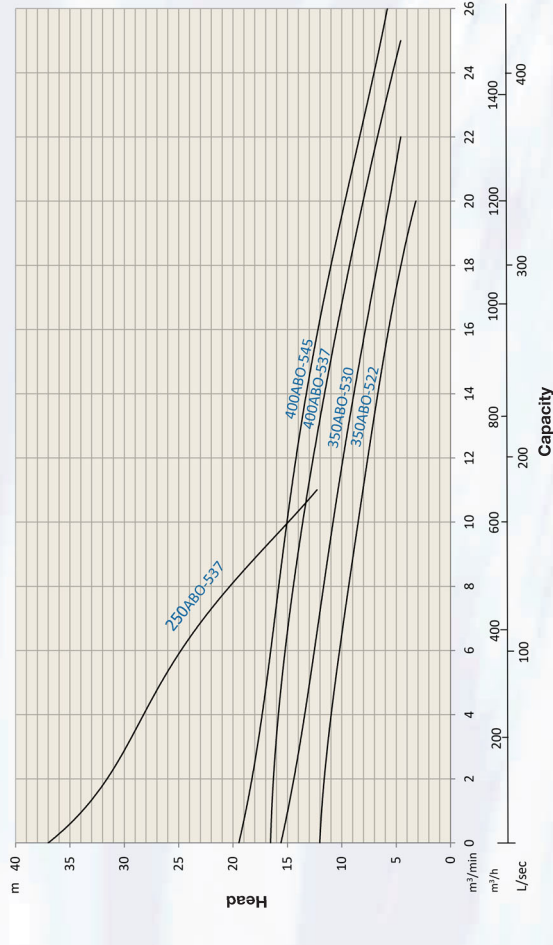
Bearing Thermal detector (optional)
The optional Bearing Thermal Detector (BTD) is attached to the bearing for detection of excessive heat generated during its operation. When abnormal temperature is detected, the device will automatically cut off the power supply to prolong the bearing's life.

WD Water detector (standard)
The device is installed in the Mechanical Seal Chamber to detect water ingress. It will send a signal to the control panel to shut down the pump to avoid motor burning out whenever a water intrusion is detected.

High quality mechanical seals
The mechanical seals are made of silicon carbide, which make them more capable of resisting and withstanding the abrasion and corrosion, and substantially extend the life expectancy of the pump.

Non-clog impeller
Non-clog impeller design, with high efficiency, excellent performance, and large solid passage. The best solution for drainage of effluent.

SELECTION CHART



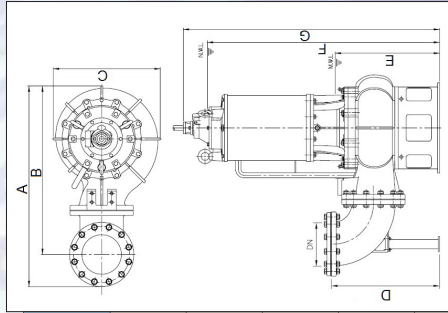
PERFORMANCE SPECIFICATION

Hz	Model	Power HP (kW)	Discharge Inch(mm)	Phase φ	Pole	Start Method	Head m	Capacity m³/min	Head ft	Capacity GPM	Solid passage mm	Weight kg (lb)
50	250ABO-537	50(37)	10(250)	3	4	Y-Δ	22	7	72.2	1850	60	691(1523)
	350ABO-522	30(22)	14(350)	3	8	Y-Δ	6.5	14	21.3	3700	120	828(1825)
	350ABO-530	40(30)	14(350)	3	6	Y-Δ	8.5	14	28	3700	120	833(1836)
	400ABO-537	50(37)	16(400)	3	6	Y-Δ	7.5	20	24.6	5285	120	965(2127)
	400ABO-545	60(45)	16(400)	3	6	Y-Δ	9	20	29.5	5285	120	970(2138)

DIMENSIONS

Unit: mm

MODEL	DN	A	B	C	D	E	F	G	CABLE LENGTH
250ABO-537	250	1273	1070	676	684	660	1342	1621	10000
350ABO-522	350	1544	1277	813	883	800	1485	1763	10000
350ABO-530	350	1544	1277	813	883	800	1485	1763	10000
400ABO-537	400	1558	1277	813	883	800	1485	1763	10000
400ABO-545	400	1558	1277	813	883	800	1485	1763	10000





- Drainage of waste water from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Sewage management, accumulated water, septic tank, live
- Drainage of waste water containing fibrous additives from dyeing factory and food processing factory.
- Pumping sewage from single and multifamily dwellings.

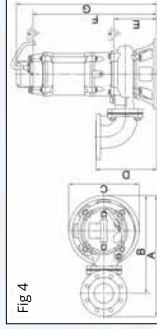
- International standard design: VCT cable, autocut, dry motor, silicon carbide mechanical seal, high grade cast iron offering highest quality and performance.
- Superior abrasion resistant mechanical seal manufactured with silicon carbide to ensure the best seal effect.

Epoxy resin sealed cable base to prevent moisture from entering motor.

Equipped with an automatic reset motor protector, which prevents the motor from burning due to high temperature / high ampere and / or loc

* Vortex impellers create a hydraulic passage, allowing long fibrous materials to pass through without any contact with the impeller. The reversed rotation of 3 phase pumps will result in higher than rated current, which may cause property or personal damage. In this case, please rewire the cable connection for proper operation.

*** Semi open impeller** can effectively chop down delicate materials to prevent congestion.



motor, silicon carbide mechanical seal, maintenance. Equipped with silicon carbide to ensure the seal is build-up around seal surface. Convenient remote installation and operation.

Pumping	Disc.diameter(mm)	50 · 80 · 100
	Liquid temp	0-40°C
	Liquid nature	Waste water and sewage
	Max.depth	30M
Pump	Structure	Impeller Mech. seal Bearing Upper cover Impeller Casing Mech. seal
		Non-Clog Vortex: AVQVCJ / Semi-Open: AVCH Double mechanical seals Ball type bearing
		FC200 FC200 FC200 SIC/SIC
		Dry type
		B class (s3.7kW · F · Class) 50Hz · 2P
Motor	Frequency · Pole	Auto-coll. s7.5kW, Motor thermal protector & MD2s 11kW
	Protector	FC200
	Frame	SUS410(0.4 ~ 0.75kW) /
	Main Shaft	SUS403(1.5 ~ 7.6kW) SUS420J2(11kW)
	Cable	VCT Float switch(s2.2kW) Water detector(1.5kW-2.2kW)
	Optional	Auto setter

Unit	Cable Length										
	A	B	C	D	E	F	G				
50AWG-51.5S(51.75S)	1 PF NPT	235 197	154 99	100 390	417 5000						
80AWG-51.5S	1 PF NPT	397 343	202 171	140 511	574 8000						
80AWG-51.5/52.2	1 PF NPT	397 343	202 171	140 456	519 8000						
80AWG-52.2S	1 PF NPT	397 343	202 171	140 558	601 8000						
80AWG-53.7	2 PT NPT	481 389	222 205	145 505	575 8000						
80AWG-55.5/57.5	2 PT NPT	501 407	258 206	147 606	705 10000						
80AWG-511	3 PF NPT	901 417	383 260	216 163	513 576 8000						
80AWG-51.5/51.5S	3 PF NPT	901 417	383 260	216 163	540 603 8000						
80AWG-51.5/52.2S	3 PF NPT	901 417	383 260	216 163	548 651 8000						
80AWG-51.5/51.5S/52.2	3 PF NPT	901 417	383 260	216 163	548 651 8000						
80AWG-53.7	4 PT NPT	498 403	250 250	176 510	578 8000						
80AWG-53.7/55.5	4 PT NPT	565(596) 417(446)	345 271(282)	198 590	689 10000						
80AWG-53.7/57.5	4 PT NPT	565(596) 417(446)	345 271(282)	198 590	689 10000						
80AWG-53.7/57.5S	4 PT NPT	565(596) 417(446)	345 271(282)	198 590	689 10000						
80AWG-53.7/57.5S	4 PT NPT	565(596) 417(446)	345 271(282)	198 590	689 10000						
80AWG-51.5/51.5S	1 PF NPT	397 268	164 150	130 380	447 5000						
80AWG-51.5/52.2	1 PF NPT	402 348	221 210	190 563	626 8000						
80AWG-51.5/52.2	1 PF NPT	402 348	221 210	190 508	571 8000						
80AWG-52.2	1 PF NPT	402 348	221 210	190 590	653 8000						
80AWG-53.7	2 PT NPT	481 388	235 241	197 557	625 8000						
80AWG-55.5/57.5	2 PT NPT	506 412	273 242	199 618	717 10000						
80AWG-511	2 PT NPT	506 412	273 242	199 658	757 10000						

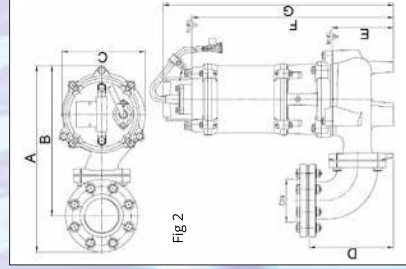
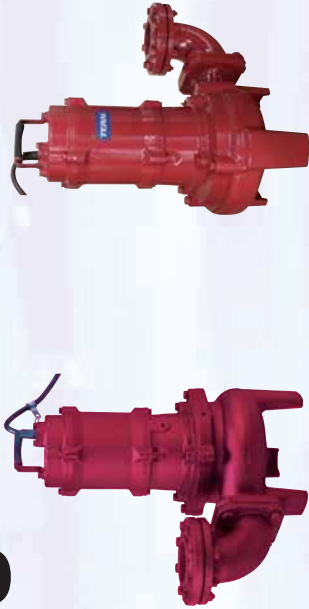


Fig 2

ACU



APPLICATIONS

- Drainage of waste water from the attenuation tank, purifying tank and sewage tank in water treatment plant
- Sewage management, accumulated water, septic tank, livestock farm
- Drainage of waste water containing fibrous additives from leather factory, dyeing factory and food processing factory.
- Pumping sewage from single and multifamily dwellings.

FEATURES

- International standard design: VCT cable, autocut, dry motor, silicon carbide mechanical seal, high grade cast iron offering highest quality and performance.
- Superior abrasion resistant mechanical seal made of silicon carbide to ensure the best seal effect.
- Oil seal mounted outside seal chamber solids build-up around seal surface.
- Compatible with Guide Rail System, which allows convenient remote installation and replacement of the pump without the need to enter the pit.

CABLE BASE

Epoxy resin sealed cable base to prevent moisture from entering into motor.

AUTO CUT

Equipped with an automatic reset motor protector, which prevents the motor from burning due to high temperature / high ampere and / or locked impeller.

IMPELLER

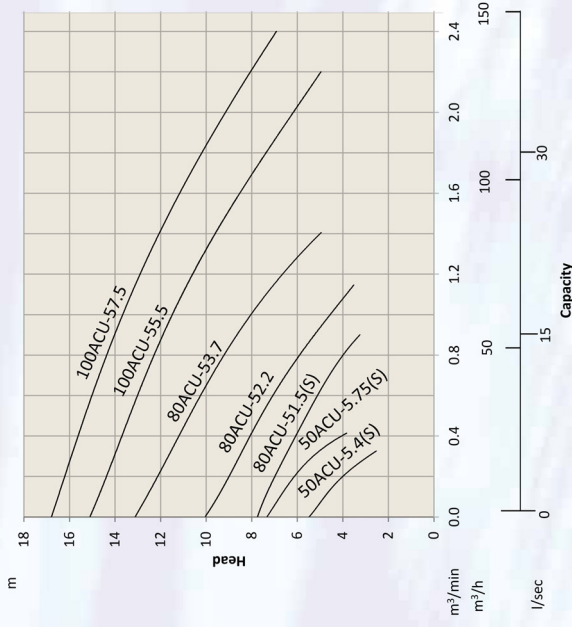
Vortex impellers create a hydraulic passage, allowing long fibrous materials to pass through without any contact with the impeller.

The reversed rotation of 3 phase pumps will result in higher than rated current, which may cause property or personal damage. In this case, please rewire the cable connection for proper operation.

MOTOR

The motors are produced under the strictest quality control procedures, the stator winding is impregnated with varnish resin and oven heated for up to 8 hours.

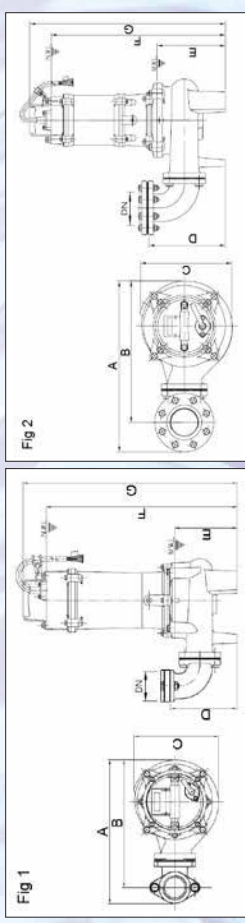
SELECTION CHART



PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
4	Vortex	50	0.4	1	Capacitor	50ACU-5.4S	0.25	3.5	50	30
				3	Direct	50ACU-5.4	0.25	3.5	50	28
				1	Capacitor	50ACU-5.75S	0.3	5	50	30
		80	1.5	3	Direct	50ACU-5.75	0.3	5	50	29
				1	Capacitor	80ACU-51.5S	0.6	5	76	46
				3	Direct	80ACU-51.5	0.6	5	76	46
	Vortex	80	2.2	3	Direct	80ACU-52.2	0.8	7	76	55
				3	Direct	80ACU-53.7	0.8	10	76	63
				3	Direct	100ACU-55.5	1	11	100	96
		100	7.5	3	Direct	100ACU-57.5	1	13.5	100	105
				3	Direct	100ACU-57.5	1	13.5	100	105

DIMENSIONS



MODEL	Fig	DN	A	B	C	D	E	F	G	Unit: mm
50ACU-5.4S	1	PF / NPT	347	308	204	160	150	469	526	5000
50ACU-5.4	1	PF / NPT	347	308	204	160	150	469	526	5000
50ACU-5.75S	1	PF / NPT	347	308	204	160	150	469	526	5000
50ACU-5.75	1	PF / NPT	347	308	204	160	150	469	526	5000
80ACU-51.5S	1	PT / NPT	447	383	280	236	234	634	697	8000
80ACU-51.5	1	PT / NPT	447	383	280	236	234	634	697	8000
80ACU-52.2	2	PT / NPT	532	438	288	261	234	579	663	8000
80ACU-53.7	2	PT / NPT	532	438	288	261	234	579	663	8000
100ACU-55.5	2	PT / NPT	615	506	337	310	303	714	813	10000
100ACU-57.5	2	PT / NPT	615	506	337	310	303	754	853	10000

SPECIFICATION

Disc diameter (mm)	50 - 80 - 100
Liquid nature	Waste water and sewage
Max. depth	30M
Impeller	Vortex
Mech. seal	Double mechanical seals
Bearing	Ball type bearing
Upper cover	FC200
Impeller	FC200
Casing	FC200
Mech. seal	SiC/SiC
Type	Dry type
Insulation	B class (≥3.7kW : F Class)
Frequency	50Hz - 4p
Pole	Auto-cut
Protector	FC200
Frame	SUS420/2(±5.5kW)
Main Shaft	SUS403 (0.4 - 3.7kW)
Cable	VCT / HVCT (5.5kW)
Optional	Float switch (±1.5kW) Water detector (±1.5kW) Auto setter



APPLICATIONS

- Suitable for pressure sewage system.
- Transferring wastewater of commercial buildings, industrial plants, wastewater sampling, small hospitals.
- To transfer various wastewater and sewage.
- Drainage of wastewater from individual residences, apartment buildings, recreational developments.

FEATURES

- Vortex impeller designed to prevent congestion by fragmented articles.
- Durable heavy duty finned cast iron construction.
- Radial cutter and cutter ring : The impeller can prevent from clogging when grinding the objects.
- Standard accessories include : epoxy resin cable base, dry motor, double mechanical seals, automatic protection, double ball bearings supported shaft and rotor.
- Optional: WD water detector protects the motor from sewage contamination, to provide you with exceptionally long pump service.



CABLE BASE

Epoxy resin sealed cable base to prevent moisture from entering into motor.

AUTO CUT

Equipped with an automatic reset motor protector, which prevents the motor from burning due to high temperature / high ampere and / or locked impeller.

IMPELLER

Vortex impellers create a hydraulic passage, allowing long fibrous materials to pass through without any contact with the impeller.

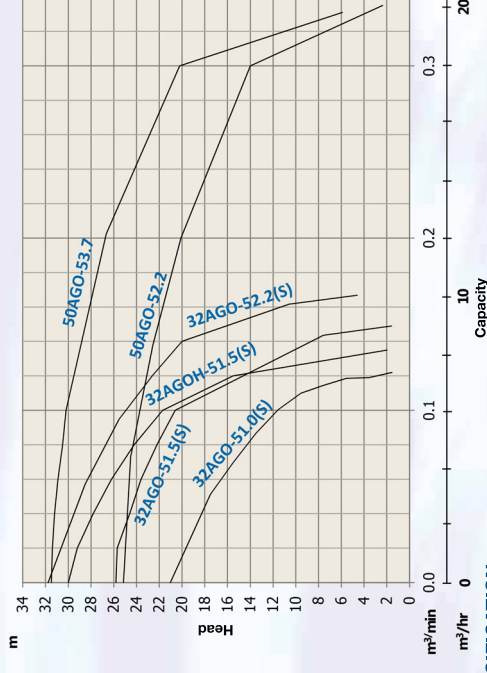
The reversed rotation of 3 phase pumps will result in higher than rated current, which may cause property or personal damage. In this case, please rewire the cable connection for proper operation.

MOTOR

Dry type, high efficiency copper wound motors with F class insulation.

The motors are produced under the strictest quality control procedures, the stator winding is impregnated with varnish resin and oven heated for up to 8 hours.

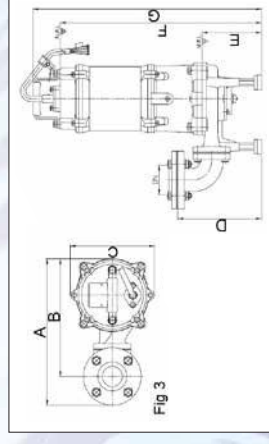
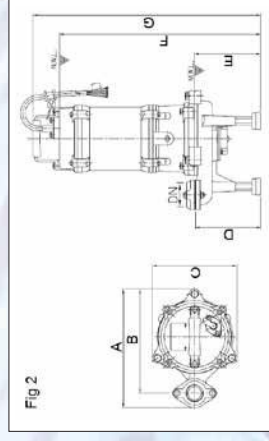
SELECTION CHART



PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase Φ	Start Method	Model	Capacity m³/min	Head m	Weight Kg
2	Semi-Open + Grinder	32	1	1	Capacitor	32AGO-51.0S	0.06	17	27
				3	Direct	32AGO-51.0	0.06	17	25
				1	Capacitor	32AGO-51.5S	0.06	23	36
				3	Direct	32AGO-51.5	0.06	23	32
			1.5	1	Capacitor	32AGOH-51.5S	0.06	26	36
				3	Direct	32AGOH-51.5	0.06	26	32
				1	Capacitor	32AGO-52.2S	0.06	28	38
				3	Direct	32AGO-52.2	0.06	29	35
		50	2.2	3	Direct	50AGO-52.2	0.2	20	44
				3	Direct	50AGO-53.7	0.2	27	47

DIMENSIONS



SPECIFICATION

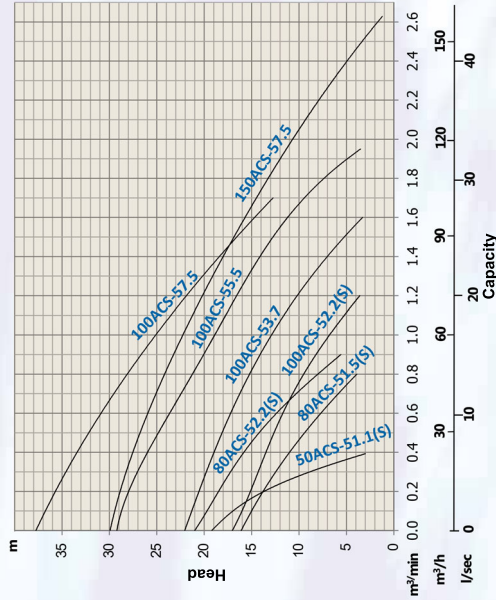
Pump	Disc diameter (mm)	32 · 50
	Liquid temp	0~40°C
	Liquid nature	Residential waste water · Sewage
	Impeller	Semi-open
Pump	Structure	Cutting Construction
	Mech. seal	Double mechanical seals
	Bearing	Ball type bearing
	Casing	FC200
Motor	Material	FC200
	Impeller	SUS440CJ 55-60 Rockwell C.)
	Radial Cutter	SUS440CJ 55-60 Rockwell C.)
	Cutter Ring	SUS440CJ 55-60 Rockwell C.)
Motor	Mech. seal	Silicon Carbide
	Type	Dry type
	Insulation	B class (≤3.7kW : F Class)
	Frequency · Pole	50Hz · 2P
Motor	Protect devices	Auto-cut
	Frame	FC200
	Main Shaft	SUS403
	Cable	VCT
Optional	Float switch (≤3.7kW)	
	Water detector (≥1.5kW)	

MODEL	Fig	DN	A	B	C	D	E	F	G	Unit: mm	CABLE LENGTH
32AGO-51.0S	2	PT / NPT	249	214	177	156	158	498	555		8000
32AGO-51.0	2	PT / NPT	249	214	177	156	158	473	530		8000
32AGO-51.5S	2	PT / NPT	285	250	203	156	158	533	596		8000
32AGO-51.5	2	PT / NPT	285	250	203	156	158	478	541		8000
32AGOH-51.5S	2	PT / NPT	285	250	203	156	158	533	596		8000
32AGOH-51.5	2	PT / NPT	285	250	203	156	158	478	541		8000
32AGO-52.2S	2	PT / NPT	285	250	203	156	158	560	623		8000
32AGO-52.2	2	PT / NPT	285	250	203	156	158	478	541		8000
50AGO-52.2	3	PT / NPT	395	318	226	234	160	521	589		8000
50AGO-53.7	3	PT / NPT	395	318	226	234	160	541	609		8000

ACS



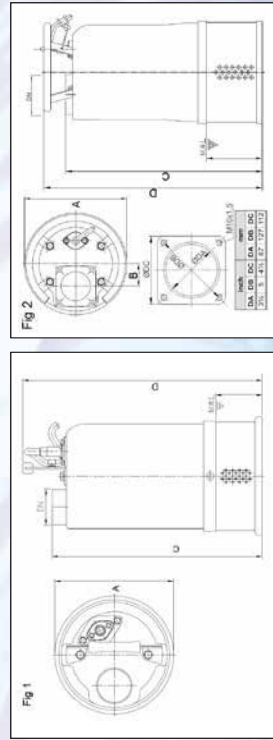
SELECTION CHART



PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase φ	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Enclosed	50	1.1	3	Direct	50ACS-51.1S	0.2	13.5	3.5	28
						50ACS-51.1	0.2	13.5	3.5	24
						80ACS-51.5S	0.5	9.5	10	40
						80ACS-51.5	0.5	9.5	10	36
2	Enclosed	80	2.2	3	Direct	80ACS-52.2S	0.5	14	10	45
						80ACS-52.2	0.5	14	10	39
						100ACS-52.2S	0.8	9.5	10	45
						100ACS-52.2	0.8	9.5	10	39
2	Enclosed	100	3.7	3	Direct	100ACS-53.7	1	12.5	10	44
						100ACS-53.7	1	12.5	10	44
						100ACS-55.5	1	19	10	75
						100ACS-55.5	1	19	10	75
2	Enclosed	150	7.5	3	Direct	100ACS-57.5	1.5	25	10	80
						150ACS-57.5	1.5	17	10	81

DIMENSIONS



MODEL	Fig	DN	A	B	C	D	CABLE LENGTH	Unit: mm
50ACS-51.1S	1	Female PS 2	210	55	431	482	8000	
50ACS-51.1	1	Female PS 2	210	55	372	423	8000	
80ACS-51.5S	3	Male PF 3	235	56	548	511	8000	
80ACS-51.5	3	Male PF 3	235	56	503	466	8000	
80ACS-52.2S	3	Male PF 3	235	56	578	541	8000	
80ACS-52.2	3	Male PF 3	235	56	503	466	8000	
100ACS-52.2S	3	Male PF 4	235	56	583	556	8000	
100ACS-52.2	3	Male PF 4	235	56	518	481	8000	
100ACS-53.7	3	Male PF 4	235	56	548	511	8000	
100ACS-55.5	2	100	286	63	550	610	10000	
100ACS-57.5	2	100	286	63	550	610	10000	
150ACS-57.5	2	150	286	63	550	610	10000	

APPLICATIONS

- Aquaculture water supply and drainage.
- Water supply for agricultural irrigation systems and underground water pumping.
- Landscape, water feature and horticulture irrigation.
- Extraction of water from rivers, lakes and reservoirs.

FEATURES

- Standard design featuring : VCT cable and dry motor equipped with thermal Auto Cut prevent motor from over heating.Abrasion resistant double mechanical seals.
- Superior design of hydro motor cooling system ensures the stable performance and extends the life expectancy of the device.

SPECIFICATION

Disc,diameter(mm)	50 · 80 · 100 · 150
Liquid temp	0~40°C
Liquid nature	Agriculture irrigation, Other drainage
Max.depth	30M
Impeller	Enclosed channel
Mech. seal	Double mechanical seals
Bearing	Ball type bearing
Out cover	SUS304
Upper cover	FC200
Impeller	Bronze (≤1.1kW), Chrome steel (≥1.5kW)
Casing	FC200
Mech. seal	SiC/SiC
Type	Dry type
Insulation	B class (F class ≥ 3.7kW)
Frequency · Pole	50Hz · 2P
Protector	Auto-cut
Frame	SUS304 (1.1kW), FC200(≥ 1.5kW)
Main Shaft	SUS403(≤2.2kW), SUS304(≥ 3.7kW)
Cable	VCT / HVCT (≥5.5kW)

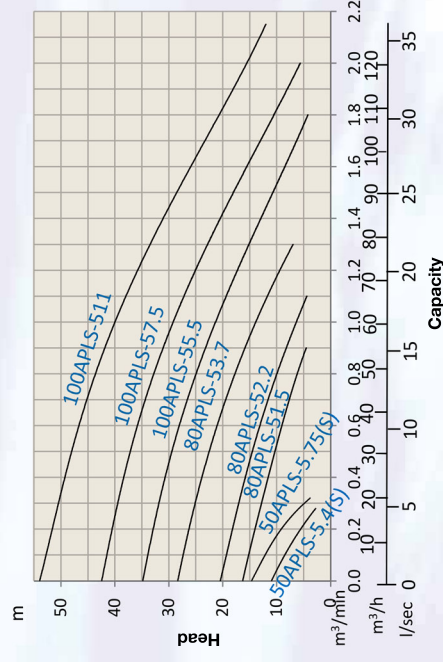
OPTIONAL OUTLET ACCESSORIES



APLS



SELECTION CHARTS



PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Semi-Open	50	0.4	1	Capacitor	50APLS-5.4S	0.12	7	10	14
						50APLS-5.4	0.12	7	10	14
						50APLS-5.75S	0.17	10	10	16
			0.75	3	Direct	50APLS-5.75	0.6	8.5	20	29.5
						80APLS-52.2	0.6	13.5	20	32.5
						80APLS-53.7	0.6	20.5	20	44.5
	Open	80	1.5	3	Direct	80APLS-52.2	0.6	20.5	20	67
						80APLS-53.7	0.6	35.5	20	73
						80APLS-57.5	0.6	46	20	82
			3.7	3	Direct	100APLS-55.5	1	21.5	20	67
						100APLS-57.5	1	29	20	73
						100APLS-511	1	39.5	20	82

DIMENSIONS

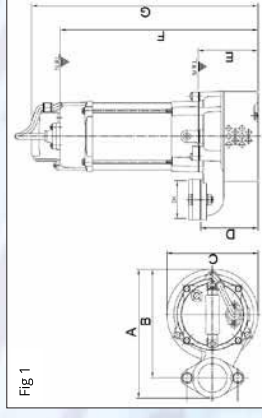
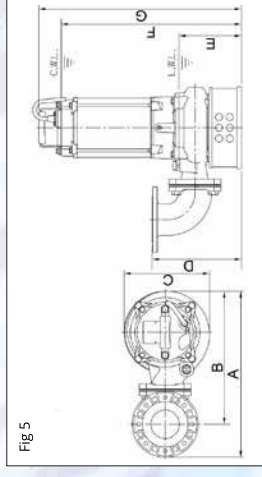


Fig 5



SPECIFICATION

APPLICATION	Disc Diameter(mm)	50 - 80 - 100
Liquid temp	Acid / Alkaline / Corrosive Liquid between PH 5-11	0-40°C
Liquid nature	Max. depth	30M
Impeller	Mech. seal	Semi-open
Bearing	Double mechanical seals	Ball type bearing
Upper cover	SCS14	SUS316
Frame	SCS14	SCS14
Impeller	SCS14	SCS14
Casing	SIC/SIC	SUS316
Mech. seal	SUS316	VCT
Main shaft	Dry & High-Efficiency Motor	B Class (≥ 3.7kW; F Glass)
Cable	50Hz - 2P	Auto-cut (Overheat protector: 0.4kW-1Ph)
Type	Insulation	Float switch (≤ 0.75kW)
Frequency · Pole	Protector	Water detector (≥ 1.5kW)
Optional		Auto seifer

VITON O-RING

Viton O-rings are utilized in the joints of the pump to provide better protection against corrosive substance and aggressive media.

INVESTMENT CASTING

Advanced Investment Casting (Lost-Wax Casting) is employed for the manufacture of the stainless steel components of the pumps to effectively reduce the sand hole created by conventional casting method and also give the smooth texture and pleasing appearance.

APPLICATIONS

- Waste drainage for industries.
- Sanitary sewer, single and multifamilies drainage.
- Water drainage for chemical, pharmaceutical and metal processing factory.

FEATURES

- This series is suitable for mildly corrosive applications.
- Reliable structure design, dry motor, double mechanical seals, equipped Auto Cut protector, stainless steel pump casing and motor frame, acid-resistant Silicon carbide seals.

APVS



APPLICATIONS

- Waste drainage for industries.
- Sanitary sewer, single and multifamilies drainage.
- Water drainage for chemical, pharmaceutical and metal processing factory.

FEATURES

- This series is suitable for mildly corrosive applications.
- Reliable structure design, dry motor, double mechanical seals, equipped Auto Cut protector, stainless steel pump casing and motor frame, acid-resistant Silicon carbide seals.

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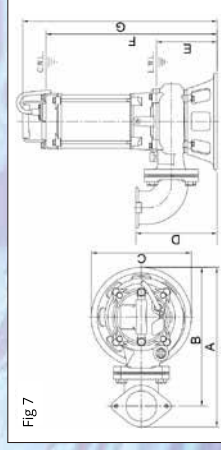
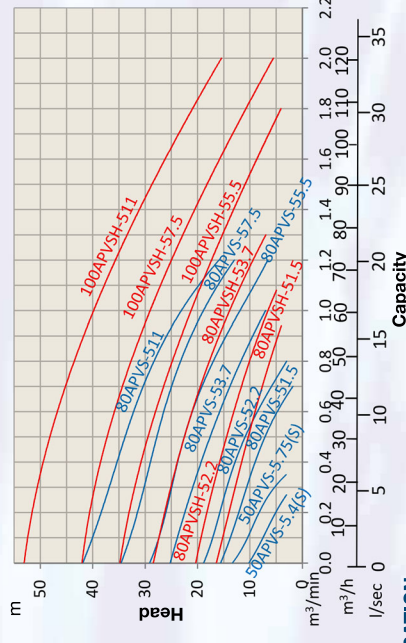


Fig 7

SELECTION CHARTS



PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Semi-Open	50	0.4	3	Direct	50APVSH-5.4S	0.15	6	35	15
						50APVSH-5.4	0.15	6	35	14
						50APVSH-5.75S	0.2	8	35	16
			0.75	1	Capacitor	50APVSH-5.75	0.2	8	35	15
						80APVSH-5.15	0.4	8.5	50	28.5
						80APVSH-5.2	0.4	13	50	29
	Semi-Open	80	2.2	3	Direct	80APVSH-5.2	0.5	17.5	50	40
						80APVSH-5.5	0.6	21	50	41
						80APVSH-5.75	0.8	26	50	67
			7.5	3	Direct	80APVSH-5.15	0.8	35	50	76
						80APVSH-5.2	0.8	35	50	76
						80APVSH-5.5	0.8	35	50	76
		100	5.5	3	Direct	80APVSH-5.2	0.6	12.5	35	28.5
						80APVSH-5.5	0.6	20.5	35	31.5
						100APVSH-5.5	1	21.5	30	45
			7.5	3	Direct	100APVSH-5.75	1	29	30	73
						100APVSH-5.11	1	39.5	30	82
						100APVSH-5.11	1	39.5	30	82

DIMENSIONS

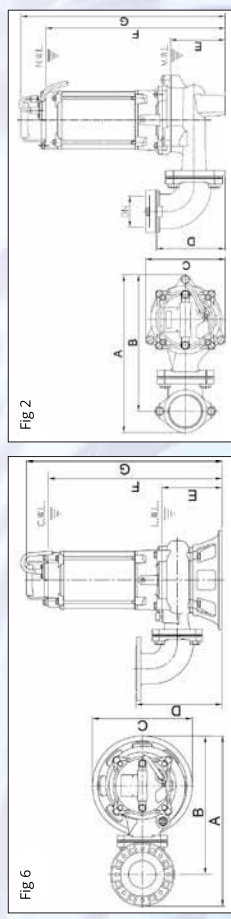


Fig 6

SPECIFICATION

APPLICATION	Disc. Diameter(mm)	50 - 80 - 100
Liquid temp	0-40°C	
Liquid nature	Acid / Alkaline / Corrosive Liquid between PH 5-11	
Max. depth	30M	
Impeller	Semi-open	
Mech. seal	Double mechanical seals	
Bearing	Ball type bearing	
Upper cover	SCS14	
Frame	SUS316	
Impeller	SCS14	
Casing	SCS14	
Mech. seal	SIC/SIC	
Main shaft	SUS316 (SUS630 ≥ 11kW)	
Type	VCT	
Cable	Dry & High-Efficiency Motor	
Insulation	B Class (≥ 3.7kW; F Class)	
Frequency · Pole	50Hz · 2P	
Protector	Auto-cut (Overheat protector: 0.4kW-1Ph) (MTP & WD ≥ 11kW) Float switch (± 0.75kW) Water detector (± 1.5kW)	
Optional	Auto setter	

ADS



APPLICATIONS

- Dewatering of fluid which contains solid sediments.
- Civil engineering, dewatering of tunnel and ground works, also for storm sewers.
- Ease of mobility for use by contractors, installers and service industries.

FEATURES

- Compact, strong and easy handling for all civil engineering application conditions.
- Double outer casings and hydro motor cooling system make it suitable for low water level operating.
- Fully waterproof IP68 stainless steel structure, combined with a high grade silicon carbide double mechanical seals.

HICR IMPELLER

The extremely sturdy HICR impeller can reach the hardness of 55-60 HRC and withstand highly abrasive applications.

SPECIFICATION

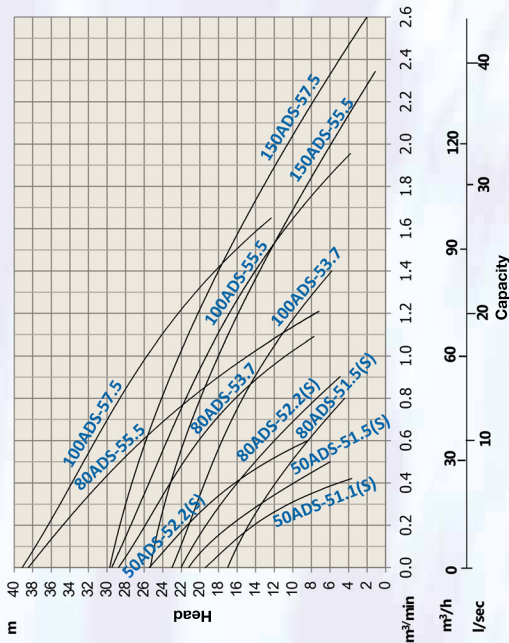
Disc diameter (mm)	50 - 80	80 - 100 - 150
Power	1.1 - 3.7 kW	5.5 - 7.5 kW
Liquid temp	Waste water and sewage	0 - 40 °C
Liquid nature		Sandy · Waste water
Max. depth	30M	
Impeller	Enclosed	Enclosed
Mech. seal	Double mechanical seals	Double mechanical seals
Bearing	Ball type bearing	
Out cover	SUS304	
Upper cover	FC200	
Casing	FC200	
Casing cover	FC200	
Impeller	HICFC	
Mech. seal	SiC/SiC	
Type	Dry type	
Insulation	B Class (3.7 kW · F class)	F class
Frequency · Pole	50Hz 2P	
Protector	Auto-cut	
Frame	SUS304 (FC200 ≥ 1.5kW) SUS304 (FC200 ≥ 1.5kW)	
Main Shaft	SUS403 (SUS304 ≥ 3.7kW) SUS403 (SUS304 ≥ 3.7kW)	
Cable	VCT	HVCT (≥ 5.5kW) or VCT
Optional	Float switch 50ADS-51.1(S)	

Please refer to individual dimensional drawing for detailed.

OPTIONAL OUTLET ACCESSORIES



SELECTION CHART



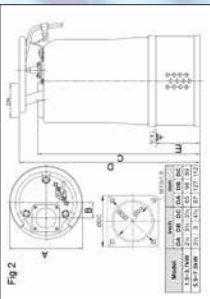
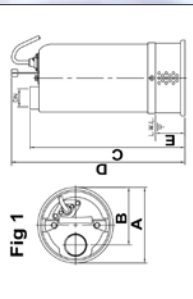
PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	SO/Output kW	Phase φ	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Semi-Open	50	1.1	1	Capacitor	50ADS-51.1S	0.2	13.5	7.5	28
				3	Direct	50ADS-51.1	0.2	13.5	7.5	24
			1.5	1	Capacitor	50ADS-51.5S	0.25	15	10	40
				3	Direct	50ADS-51.5	0.25	15	10	36
	Enclosed	80	2.2	1	Capacitor	50ADS-52.2S	0.3	19	10	44
				3	Direct	50ADS-52.2	0.3	19	10	39
			1.5	1	Capacitor	80ADS-51.5S	0.5	10	10	40
				3	Direct	80ADS-51.5	0.5	10	10	36
	Semi-open	100	2.2	1	Capacitor	80ADS-52.2S	0.5	14	10	45
				3	Direct	80ADS-52.2	0.5	14	10	39
			3.7	1	Direct	80ADS-53.7	0.5	21.5	10	44
				3	Direct	80ADS-53.7	0.5	21.5	10	44
Enclosed	150	3.7	1	Direct	100ADS-53.7	1	12.5	10	72	
			3	Direct	100ADS-53.7	1	12.5	10	44	
		5.5	1	Direct	100ADS-54.5	1	19	10	75	
			3	Direct	100ADS-54.5	1	19	10	70	
		7.5	1	Direct	150ADS-57.5	1	25	10	80	
			3	Direct	150ADS-57.5	1.5	12	10	78	
			5.5	3	Direct	150ADS-55.5	1.5	12	10	81
			7.5	3	Direct	150ADS-57.5	1.5	17	10	78

DIMENSIONS

MODEL	Fig	DN	A	B	C	D	E	CABLE LENGTH
50ADS-51.1S	1	Female PS 2	210	180	431	482	85	8000
50ADS-51.1	1	Female PS 2	210	180	372	423	85	8000
50ADS-51.5S	2	50	235	50	465	511	115	8000
50ADS-51.5	2	50	235	50	421	466	115	8000
50ADS-52.2S	2	50	235	50	496	541	115	8000
50ADS-52.2	2	50	235	50	421	466	115	8000
80ADS-51.5S	2	80	235	50	465	511	115	8000
80ADS-51.5	2	80	235	50	421	466	115	8000
80ADS-52.2S	2	80	235	50	496	541	115	8000

MODEL	Fig	DN	A	B	C	D	E	CABLE LENGTH
80ADS-52.2	2	80	235	50	421	466	115	8000
80ADS-53.7	2	80	235	50	451	496	115	8000
80ADS-55.5	2	80	286	63	550	610	130	10000
100ADS-53.7	2	100	286	63	465	511	130	8000
100ADS-55.5	2	100	286	63	550	610	130	10000
100ADS-57.5	2	100	286	63	550	610	130	10000
150ADS-55.5	2	150	286	63	550	610	130	10000
150ADS-57.5	2	150	286	63	550	610	130	10000



ADM



Agitator

APPLICATIONS

- Dewatering of fluid which contains solid sediments.
- Civil engineering, dewatering of tunnel engineering , also for manhole sewer.
- Mobile use for contractors, installers and industry.

FEATURES

- Reliable waterproof structure, automatic rest motor protector and double mechanical seals made of silicon carbide. Durable and leakproof.
- Compact, strong design and easy operation in any place.
- Designed for civil engineering, light weight for easy portability, double outer casing hydro motor cooling system make it possible to pump the water to low level.
- Impeller made of high chrome alloy steel with hardness of 55-60 HRC.
- Extremely durable and abrasion resistant.
- Equipped with a cast iron agitator to create powerful turbulence to carry away slurry.

SPECIFICATIONS

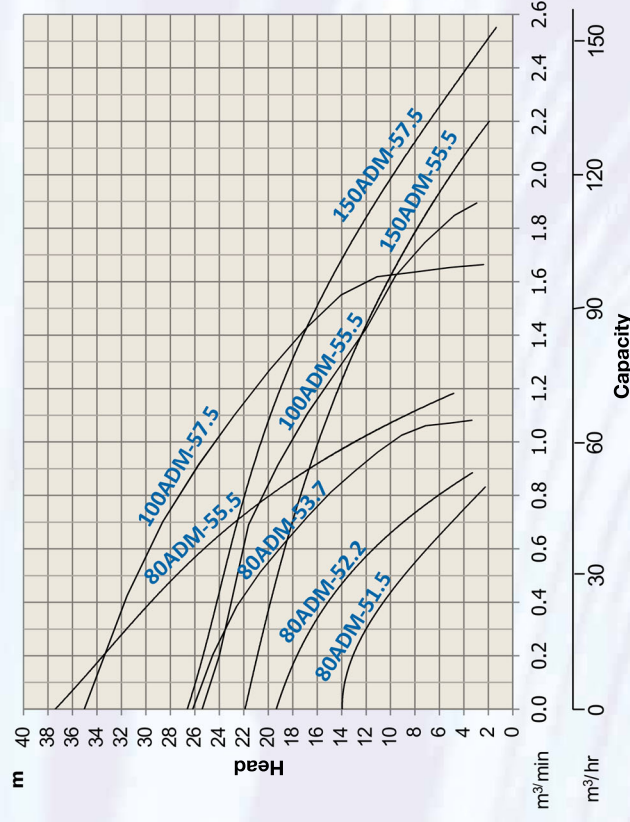
Disc. Diameter(mm)	80 · 100 · 150
Power(kW)	1.5-7.5
Liquid temp	0-40°C
Liquid nature	Delivery of Sandy & Abrasive Liquid. Suitable for Construction or Mining Field
Max. depth	30M
Impeller	Semi-open (80ADM-55.5) Enclosed
Mech. seal	Double mechanical seals
Bearing	Ball type bearing
Out cover	FC200
Upper cover	FC200
Frame	FC200
Impeller	HIC/FC
Casing	FC200
Agitator	FC0700
Mech. seal	SIC / SIC
Main shaft	SUS403(≤2.2kW), SUS304 (≥3.7kW)
Cable	VCT or H07RN-F
Type	Dry & High-Efficiency Motor
Insulation	B class (F class ≥ 3.7kW)
Frequency · Pole	50Hz · 2P
Protector	Auto-cut

OPTIONAL OUTLET ACCESSORIES



Please refer to individual dimensional drawing for detailed.

SELECTION CHART

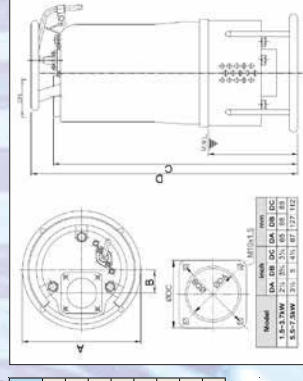


PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase φ	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Enclosed	80	1.5	3	Direct	80ADM-51.5	0.5	9	10	36
			2.2	3	Direct	80ADM-52.2	0.5	13	10	40
			3.7	3	Direct	80ADM-53.7	0.5	21	10	45
			5.5	3	Direct	80ADM-55.5	0.5	27	10	73
	Semi-open	100	5.5	3	Direct	100ADM-51.5	1	18	10	76
			7.5	3	Direct	100ADM-52.2	1	24	10	81
			5.5	3	Direct	150ADM-55.5	1.5	11	10	79
			7.5	3	Direct	150ADM-57.5	1.5	16	10	82
	Enclosed	150	7.5	3	Direct	150ADM-51.5	1.5	16	10	82

DIMENSIONS

MODEL	DN	A	B	C	D	CABLE LENGTH	Unit: mm
80ADM-51.5	80	280	50	502	547	8000	
80ADM-52.2	80	280	50	502	547	8000	
80ADM-53.7	80	280	50	532	577	8000	
80ADM-55.5	80	318	62	623	683	10000	
100ADM-51.5	100	318	62	623	683	10000	
100ADM-52.2	100	318	62	623	683	10000	
100ADM-53.7	100	318	62	623	683	10000	
100ADM-55.5	100	318	62	623	683	10000	
150ADM-51.5	150	318	62	623	683	10000	
150ADM-52.2	150	318	62	623	683	10000	
150ADM-53.7	150	318	62	623	683	10000	
150ADM-55.5	150	318	62	623	683	10000	



LARGE VOLUME WATER PUMPS

AAX

(100mm ~ 300mm)



APPLICATIONS

- Aquaculture water pumping and drainage for large volume water applications.
- Water supply for landscape and water features.
- Extraction of water from rivers, lakes and reservoirs.
- Flood control.

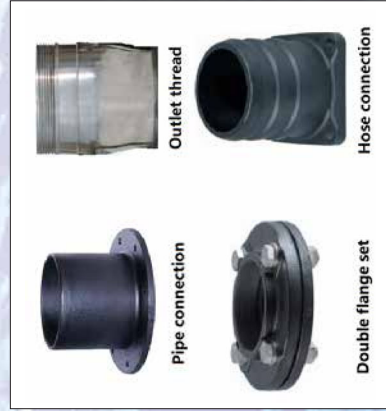
FEATURES

- Robust construction and compact design with a dry motor, double mechanical seal and impeller flow guide vane high efficiency.
- Large flow capacities achieved with almost no vibration or noise by use of Axial & Mix flow design.
- Easy handling, energy saving and low maintenance.

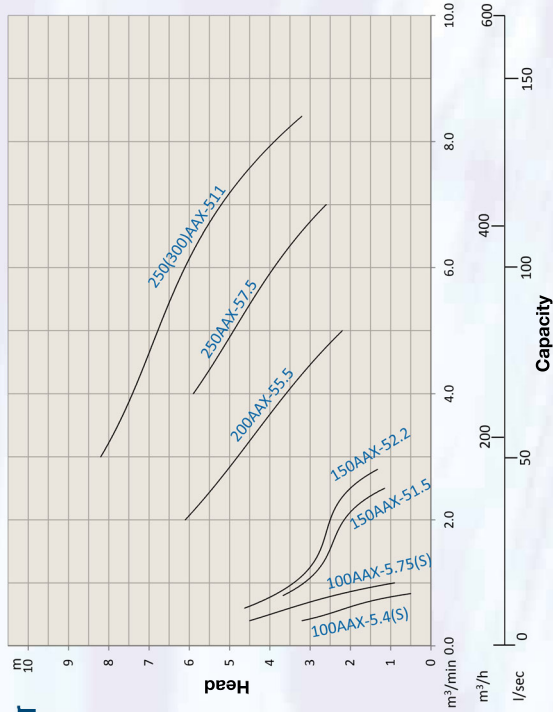
SPECIFICATION

Disc diameter (mm)	100 - 150 - 200 - 250 - 300
Liquid temp	0 - 40°C
Liquid nature	Agriculture irrigation, Aquaculture water, River water
Max depth	30M
Impeller	Axial-flow / Mix-flow (≥11kW)
Mech. seal	Double mechanical seals
Bearing	Ball type bearing
Outer cover	SUS304
Upper cover	FC200
Impeller	ALB23 Bronze
Casing	FC200
Mech. seal	CA/CFE (5.5-15kW), SIC/SIC (0.4-2.2kW)
Type	Dry type
Insulation	B Class / F Class (≥5.5kW)
Frequency · Pole	50Hz · 4P · 2P (≤0.75kW)
Protector	Auto-curt (≥5.5kW Optional)
Frame	FC200, SUS304 (≥5.5kW)
Main Shaft	SUS304
Cable	VCT / HVCT

OPTIONAL OUTLET ACCESSORIES



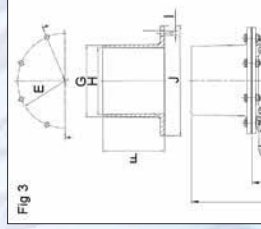
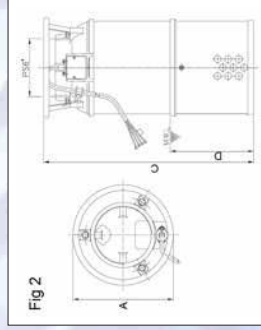
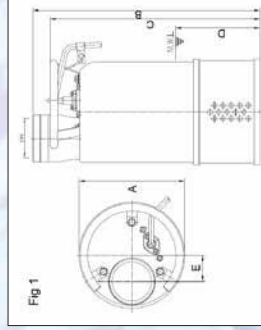
SELECTION CHART



PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase φ	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Axial	100	0.4	1	Capacitor	100AAX-5.4S	0.7	1.5	10	25
				3	Direct	100AAX-5.4	0.7	1.5	10	25
				1	Capacitor	100AAX-5.75S	0.7	3	10	26
				3	Direct	100AAX-5.75	0.7	3	10	26
4	Axial	150	1.5	3	Direct	150AAX-51.5	2	2	20	51
				3	Direct	150AAX-52.2	2	2.5	20	52
		200	5.5	3	Direct	200AAX-55.5	3.6	4	23	118
				3	Direct	200AAX-57.5	5.5	4	23	157
	Mix	250	7.5	3	Direct	250AAX-57.5	7	4.5	23	201
				3	Direct	250AAX-511	7	4.5	23	201
		300	11	3	Direct	300AAX-511	7	4.5	23	201
				3	Direct	300AAX-511	7	4.5	23	201

DIMENSIONS



MODEL	Fig	DN	A	B	C	D	E	F	G	H	I	J	CABLE LENGTH
100AAX-5.4S	1	Male PT 4	225	478	441	200	56	NA	NA	NA	NA	NA	5000
100AAX-5.4	1	Male PT 4	225	478	441	200	56	NA	NA	NA	NA	NA	5000
100AAX-5.75S	1	Male PT 4	225	478	441	200	56	NA	NA	NA	NA	NA	5000
100AAX-5.75	1	Male PT 4	225	478	441	200	56	NA	NA	NA	NA	NA	5000
150AAX-51.5	2	Female PS 6	285	NA	597	300	NA	NA	NA	NA	NA	NA	8000
150AAX-52.2	2	Female PS 6	285	NA	597	300	NA	NA	NA	NA	NA	NA	8000
200AAX-55.5	3	200	340	923	733	400	285	185	215	250	250	330	10000
200AAX-57.5	3	250	380	1015	802	500	325	210	266	250	250	370	10000
250AAX-57.5	3	250	430	1082	862	600	389	220	317	250	250	430	10000
300AAX-511	3	300	430	1082	862	600	389	220	317	300	250	430	10000

AAXL

(550mm~700mm)



APPLICATIONS

- Water supply or drainage for industry.
- Water supply for hydro cooling system in the power plant.
- Drainage of waste water.
- Suitable for large volume dewatering.
- Water supply for agriculture irrigation.
- Extraction of water from dock and river.

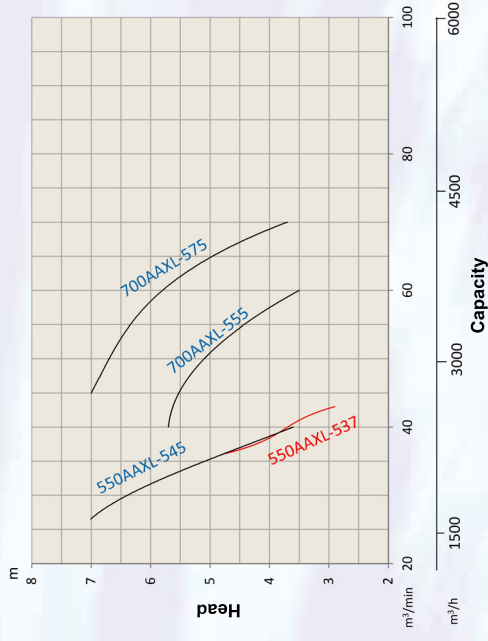
FEATURES

- Pump manufactured with firm structure, exposed cable lead hermetically sealed with epoxy for better protection against water and moisture,
- double mechanical seals, and IP68 dust free and water proof for long lasting operation.
- Shaft and impeller are precisely balanced for stable performance and silent operation.

SPECIFICATION

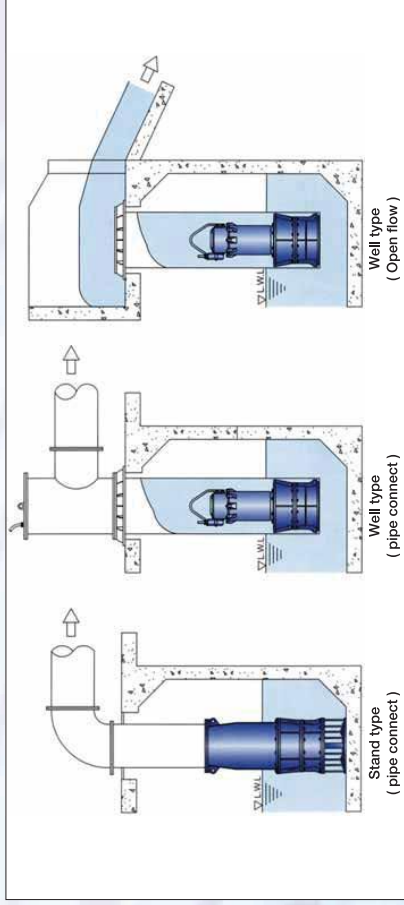
Pumping liquid	Disc diameter (mm)	550-700
	Liquid temp	0-40°C
Pump	Liquid nature	Waste water, Industry drainage, Agriculture irrigation, Aquaculture water
	Impeller	Axial
	Mech. seal	Double mechanical seals
	Bearing	Ball type bearing
	Upper cover	FC200
	Impeller	SCS13
	Casing	FC200
	Wear ring	SCS13(≤45kW) / ALBC3(≤55kW)
	Mech. seal	SIC/SIC & SIC/SIC
	Protection Device	Water detector in mechanical seal chamber
Motor	Type	Dry type
	Frequency · Pole	50Hz · 8P(17-45kW), 10P(55-75kW)
	Phase Volt.	3p, 380-480V
	Insulation	F Class (155°C)
	Protection Device	Motor thermal protector
	Frame	FC200
Shaft	Material	SUS420J2
	Cable	2P NCT or VCT

SELECTION CHART



PERFORMANCE SPECIFICATION

Model	Power HP (kW)	Discharge Inch	Phase φ	Start Method	Capacity m³/min	Head m	Well Type Weight (kg)	Stand Type Weight (kg)
550AAXL-537	50(37)	22	3	Y-Δ	38	4	755	1130
550AAXL-545	60(45)	22	3	Y-Δ	31	6	755	1130
700AAXL-555	75(55)	28	3	Y-Δ	60	3.5	1530	2060
700AAXL-575	100(75)	28	3	Y-Δ	60	5	1600	2130



DIMENSIONS

Well Type	Fig	DN	A	B	C	D	E	F	G
550AAXL-537	2	550	803	1380	330	300	φ790	10000	
550AAXL-545	2	550	803	1380	330	300	φ790	10000	
700AAXL-555	2	700	870	2150	356	400	φ870	10000	
700AAXL-575	2	700	870	2150	356	400	φ870	10000	

Well Type	Fig	DN	A	B	C	D	E	F	G
550AAXL-537	1	550	803	1960	1120	330	φ720	665	φ2720
550AAXL-545	1	550	803	1960	1120	330	φ720	665	φ2720
700AAXL-555	1	700	930	2720	1420	420	φ875	820	φ2724
700AAXL-575	1	700	930	2720	1420	420	φ875	820	φ2724

Fig 1

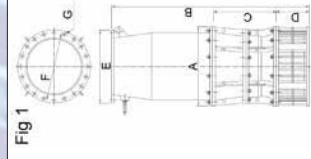


Fig 2



SUMP



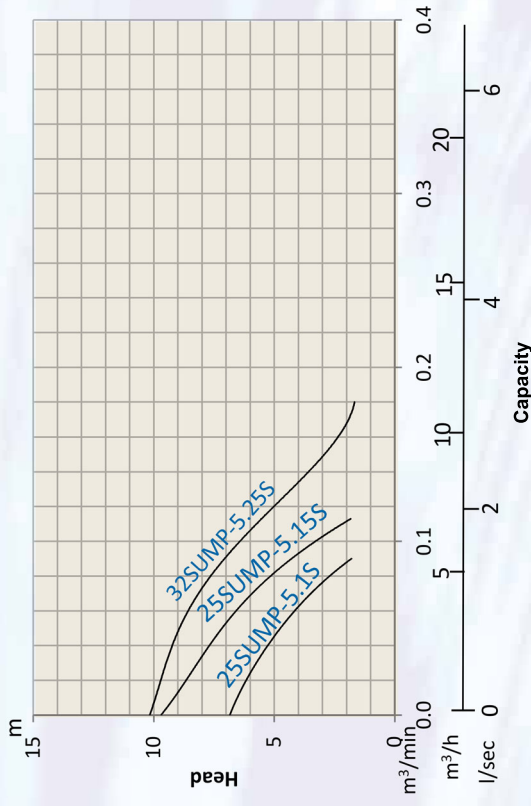
● APPLICATIONS

- * Water Tank Circulation;
- * Water recycle in pool & fountain;
- * Light duty water supply & drainage;
- * Commercial Tank Beautification

● FEATURES

- * High capacity, high efficient motor with low amperage providing energy saving
- * Motor with cooling effect even for low water positioning
- * Optional Accessories: Standard Float Switch (F) type or Vertical Float Switch (FV) for confined space application
- * New Vortex Design with superior performance

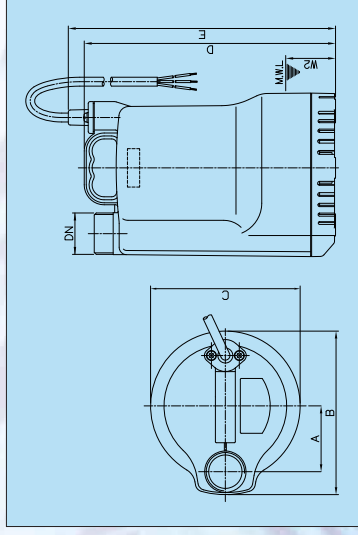
■ SELECTION CHART



■ PERFORMANCE SPECIFICATION

Pole P	Impeller Type	Dis. mm	Output kW	Phase φ	Start Method	Model	Capacity m³/min	Head m	Solid passage mm	Weight kg
2	Semi-open	25	0.1	1	Capacitor	25SUMP-5.1S	0.05	4.5	4	4.0
			0.15	1	Capacitor	25SUMP-5.15S	0.06	6.5	4	4.4
			0.25	1	Capacitor	32SUMP-5.25S	0.1	6.5	4	4.1

■ DIMENSIONS



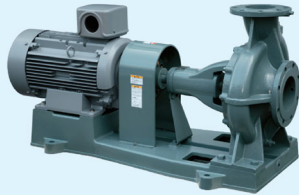
MODEL	DN	A	B	C	D	E	W2	CABLE LENGTH
25SUMP-5.1S	PF 1	68	164	153	240	256	50	3000
25SUMP-5.15S	PF 1	68	164	153	240	256	50	3000
32SUMP-5.25S	PF 1.5	66	164	150	252	268	50	3000

■ SPECIFICATION

Disc.diameter(mm)	Power	25	32
	Liquid temp	0.1~0.15kW	0.25kW
Pumping liquid	Liquid nature	Dirty water from sumps, Clean water Basins and tanks	Marine culture, Sea water
	Max.depth	10M	
Pump	Impeller	Semi-open	
	Mech. seal	Single mechanical seals	
	Bearing	Ball type bearing	
	Upper cover	ASA	PP
	Impeller	ABS	PA
	Casing	ASA	PP
Motor	Mech. seal	CA/CE	SiC/SiC
	Type	Dry type	
	Insulation	B class	
	Frequency · Pole	50Hz · 2P	
Material	Protector	Overheat protector	
	Frame	ADC12	SUS316
	Main Shaft	SUS410	
	Cable	H05RN-F	
Optional	Float switch		

TERAL

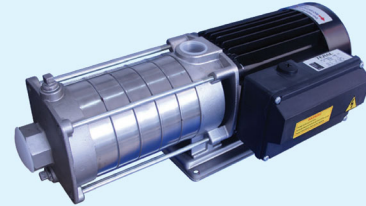
Pumps and Fans



End-suction Pumps



In-Line Pumps



Horizontal Multistage Pumps



Horizontal Split Case Pumps



Freshwater &
Sewage Submersible Pumps



Variable Speed Systems



Vertical Multistage
Pumps



Coolant Pumps



Ring Blowers



Centrifugal Fans

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(Edition Date: December 2022 by Teral Asia Limited)
TAD00602-3-E