



50AFU2.4
50AFU2.8



80AFU21.5
80AFU22.2



80AFP21.5
80AFP22.2



80AFU23.7

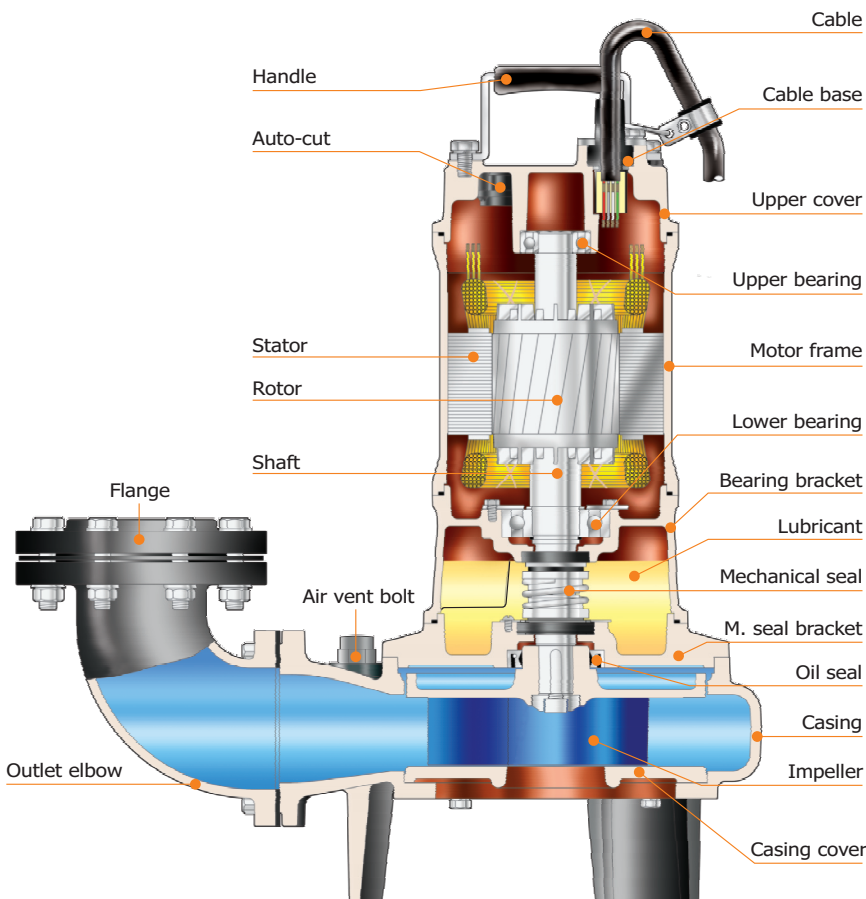


FEATURE

- International standard design : cable, auto-cut, dry-motor, silicon carbide mechanical seal, high grade cast iron offering highest quality and performance.
- P/U/E multiple impellers designed to handle sewage solids and/or fibrous substances.
- Superior abrasion resistant mechanical seal manufactured with silicon carbide to ensure the best seal effect.
- Oil lip seal mounted outside of seal chamber stops solids gathering around seal faces.
- Full range offering low to high head and flow capabilities, with compact and easy installation. Also, available with Guide Rail System, which allows automatic remote connection and disconnection without entering the pit.

APPLICATIONS

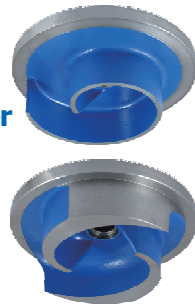
- Drainage of waste water from the attenuation tank, purifying tank and sewage tank in water treatment plant.
- Drainage of waste water containing fibrous additives from leather factory, dyeing factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage from hotels, restaurants, schools and public buildings.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage from hotels, restaurants, schools and public buildings.



IMPELLER TYPE

P Type Impeller

Semi-open (Single Vane Impeller) : Excellent to use with waste materials to prevent from clogging.



U Type Impeller

Semi-open (Vortex Impeller) : produces a vortex (whirlpool effect) allowing long fibrous materials and other solid waste to pass through without contact with the impeller.



Note: The vortex impeller will cause higher amperage when operated in reverse direction.

E Type Impeller

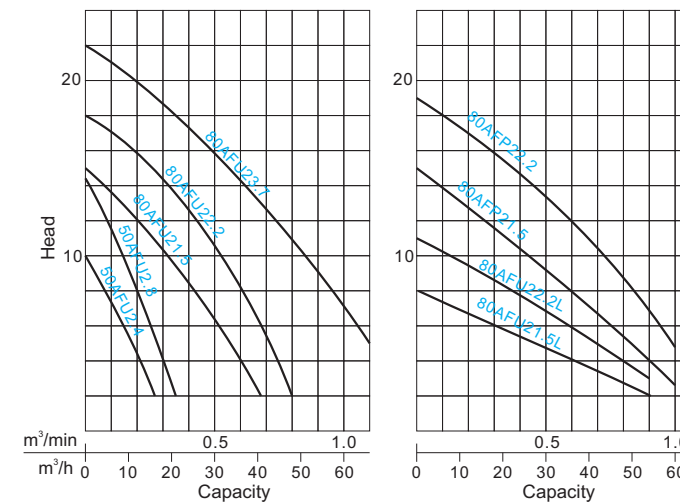
Enclosed Channel impeller : High impeller efficiency and clog-resistant design, primarily used for large pump applications.



PRODUCT NOMENCLATURE

80	AF	P	2	1.5
Discharge mm	Type	Impeller type (P/U)	Pole	kW

PERFORMANCE CURVES



PERFORMANCE SPEC.

Pole	Model	Power HP(kW)	Discharge Inch(mm)	Phase	Start Method	Head m	Capacity		Weight kg 1 /3	Solid Passage mm	Dimension (mm)		
							m³/min	m³/h			Length	Width	Height
2P	50AFU2.4	0.5(0.4)	2"(50)	1	Capacitor	6	0.15	9	19	35	236	152	418
	50AFU2.8	1(0.75)	2"(50)	3	Direct	8	0.2	12	20	35	236	152	418
	80AFU21.5	2(1.5)	3"(80)	1	Capacitor	8.5	0.4	24	40	50	379	202	575
	80AFU21.5L	2(1.5)	3"(80)	3	Direct	4.5	0.5	30	36	76	402	217	524
	80AFU21.5L	2(1.5)	3"(80)	1	Capacitor	4.5	0.5	30	43	76	402	217	626
	80AFU21.5L	2(1.5)	3"(80)	3	Direct	4.5	0.5	30	39	76	402	217	575
	80AFU22.2	3(2.2)	3"(80)	1	Capacitor	12.5	0.4	24	42	50	379	202	607
	80AFU22.2L	3(2.2)	3"(80)	3	Direct	7	0.5	30	38	76	402	217	524
	80AFU22.2L	3(2.2)	3"(80)	1	Capacitor	7	0.5	30	45	76	402	217	659
	80AFU22.2L	3(2.2)	3"(80)	3	Direct	7	0.5	30	41	76	402	217	575
	80AFU23.7	5(3.7)	3"(80)	3	Direct	16	0.5	30	56	56	478	220	588
	80AFP21.5	2(1.5)	3"(80)	1	Capacitor	8	0.6	36	42	35	413	260	576
80AFP21.5	2(1.5)	3"(80)	3	Direct	8	0.6	36	38	35	413	260	525	
80AFP22.2	3(2.2)	3"(80)	1	Capacitor	12	0.6	36	45	35	413	260	608	
80AFP22.2	3(2.2)	3"(80)	3	Direct	12	0.6	36	40	35	413	260	525	

Note : Weight W/O Cable

SPECIFICATIONS

Item	Description		
Liquid temp.	0~40°C(32~104°F)		
Applications	Wastewater · Sewage		
Max depth	30m		
Pump sect.	Structure	Impeller: Semi-open · Vortex M. seal: Double M. seals Bearing: Ball type	
	Material	Upper cover: FC-200 Casing: FC-200 Impeller: FC-200 M. Seal: Lower: Sic/Sic · Upper: CA/CE	
		Motor sect.	Motor: Dry motor 2P (3000RPM)
			Insulation: B Class (5HP:F Class)
Frequency: 50Hz			
Protector: Auto-cut			
Material	Frame: FC-200 Main shaft: SUS410 (2~5HP : SUS403) Cable: VCT or H07RN-F or SJOW/SOW		

※Pumps can be customized to fit specifications.



50AFU 4.4
50AFU 4.8

80AFP 41.5

80AFP 42.2
80/100AFP43.7

80AFU42.2
80AFU43.7



AF-55

AF-75

AF-610 · 615 · 620

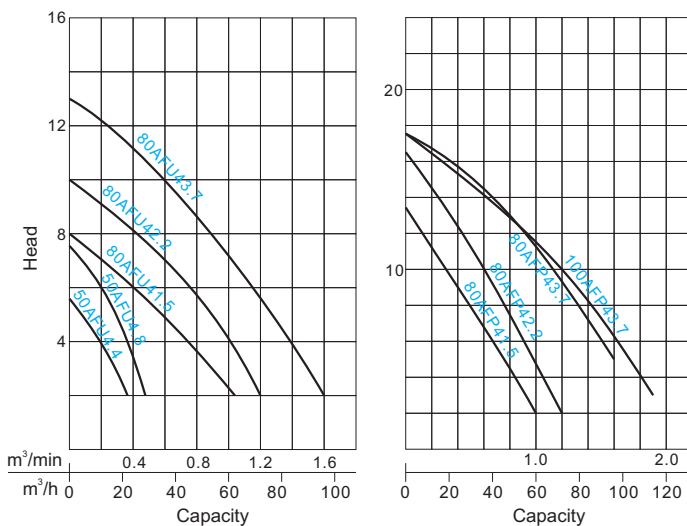
AF-815 · 820



PRODUCT NOMENCLATURE

80 Discharge mm AF Type U Impeller type (P/U) 4 Pole 2.2 kW

PERFORMANCE CURVE



SPECIFICATIONS

Diameter (mm)	50 · 80 · 100	
Liquid temp	0~40°C(32~104°F)	
Liquid nature	Waste water and sewage	
Max depth	30m	
Pump sect.	Structure	Impeller: P type : Semi-open, Non-clog
	Mech seal	Double mechanical seal
	Bearing	Ball type
	Upper cover	FC-200
	Casing	FC-200
	Impeller	FC-200
Motor sect.	M. seal	Sic/Sic
	Motor	Dry motor
	Insulation	4P(1500RPM)
	Frequency	B Class (5HP : F Class)
	Auto-cut	50Hz
	Protector	Automatic reset motor protector
Material	Frame	FC-200
	Main shaft	SUS420J2 (0.5~1HP : SUS403)
	Cable	VCT

Note : Pumps can be customized to fit specifications.

PERFORMANCE SPEC.

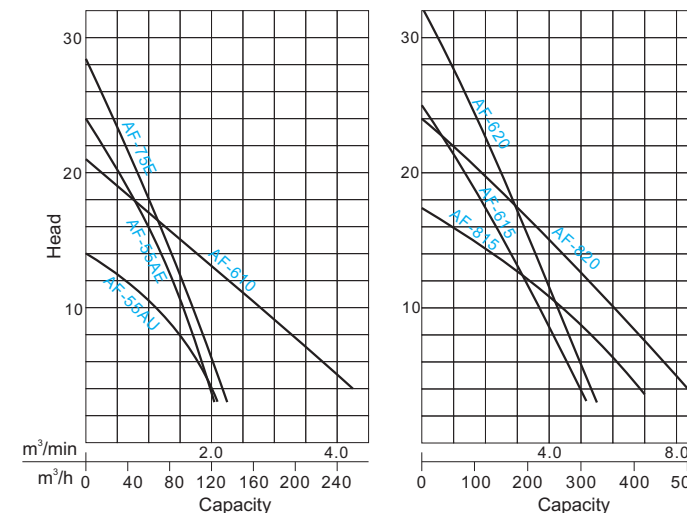
Pole	Model	Power HP(kW)	Discharge Inch(mm)	Phase	Start Method	Head m	Method		Weight kg 1 /3	Solid Passage mm	Dimension (mm)		
							m³/min	m³/h			Length	Width	Height
4P	50AFU4.4	0.5(0.4)	2"(50)	1	Capacitor	3.5	0.25	15	30	50	346	204	516
					Direct								
	50AFU4.8	1(0.75)	2"(50)	1	Capacitor	5	0.3	18	31	50	346	204	516
					Direct								
	80AFU41.5	2(1.5)	3"(80)	1	Capacitor	5	0.6	36	52	76	500	256	700
					Direct								
	80AFU42.2	3(2.2)	3"(80)	3	Direct	7	0.6	36	68	80	538	289	573
					Direct								
	80AFU43.7	5(3.7)	3"(80)	3	Direct	10	0.6	36	75	80	538	289	697
					Direct								
	80AFP41.5	2(1.5)	3"(80)	1	Capacitor	8	0.5	30	52	50	530	290	645
					Direct								
80AFP42.2	3(2.2)	3"(80)	3	Direct	10	0.6	36	70	50	553	313	623	
				Direct									
80AFP43.7	5(3.7)	3"(80)	3	Direct	14.5	0.6	36	79	50	553	313	643	
				Direct									
100AFP43.7	5(3.7)	4"(100)	3	Direct	11.5	1.0	60	82	50	570	313	643	
				Direct									

Note : Weight W/O Cable

PRODUCT NOMENCLATURE

AF - 55 A U
Type kW Style Impeller type (E/U)
AF - 6 10
Type Discharge inch HP

PERFORMANCE CURVES

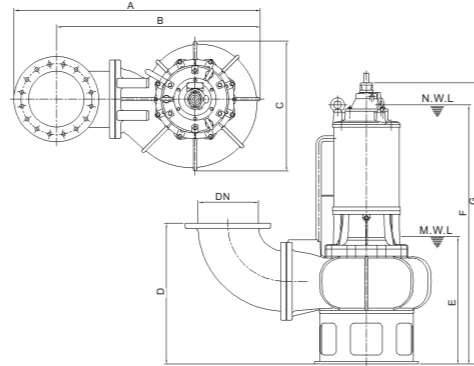
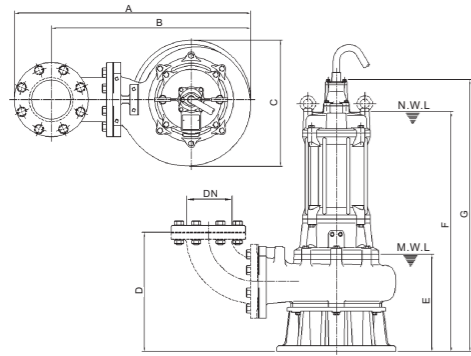


PERFORMANCE SPEC.

Pole	Model	Power HP(kW)	Discharge Inch(mm)	Phase	Start Method	Head m	Capacity		Weight kg 3	Solid Passage mm	Dimension (mm)		
							m³/min	m³/h			Length	Width	Height
4P	AF-55AU	7.5(5.5)	4"(100)	3	Direct	10.5	1.0	60	131	65	687	405	795
	AF-55AE	7.5(5.5)	4"(100)	3	Direct	16	1.0	60	139	40	687	405	795
	AF-75E	10(7.5)	4"(100)	3	Direct	18	1.0	60	153	40	687	405	816
	AF-610	10(7.5)	6"(150)	3	Direct	11	2.5	150	221	73	888	449	870
	AF-615	15(11)	6"(150)	3	Y-Δ	15.5	2.5	150	260	70	895	477	1026
	AF-620	20(15)	6"(150)	3	Y-Δ	20.5	2.5	150	183	70	895	477	1026
	AF-815	15(11)	8"(200)	3	Y-Δ	10	4.5	270	270	70	1045	497	1021
	AF-820	20(15)	8"(200)	3	Y-Δ	14	4.5	270	285	70	1045	501	1032

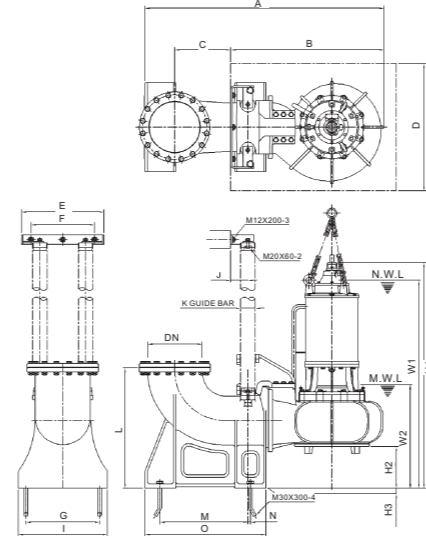
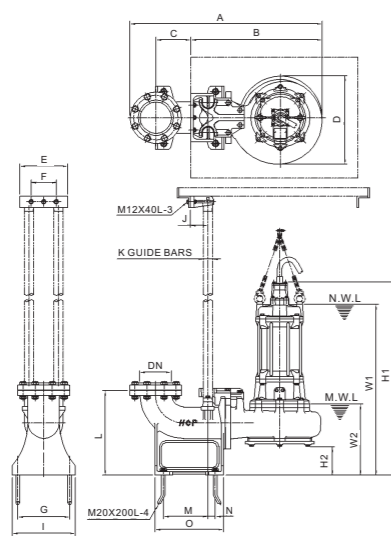
Note : Weight W/O Cable

EXTERNAL DIMENSTION



Model	DN	A	B	C	D	E	F	G
AF-615	150	895	755	477	450	367	905	1026
AF-620	50HZ	150	806	666	455	385	329	801
	60HZ	150	895	755	477	450	367	905
AF-630	150	850	710	497	398	332	900	1021
AF-815	200	1045	880	501	483	372	910	1032
AF-820	200	1045	880	501	483	372	910	1032
AF-830	200	896	731	479	411	285	878	998
	200	1120	955	620	650	475	1220	1340

Model	DN	A	B	C	D	E	F	G
AF-1030S	250	1273	1070	676	684	660	1500	1621
AF-1040	250	1273	1070	676	684	660	1500	1621
AF-1050	250	1273	1070	676	684	660	1500	1621
AF-1060	250	1273	1070	676	684	660	1500	1621
AF-1430	350	1564	1277	813	884	800	1645	1764
AF-1440	350	1564	1277	813	884	800	1645	1764
AF-1650	400	1564	1277	813	884	800	1645	1764
AF-1660	400	1564	1277	813	884	800	1645	1764



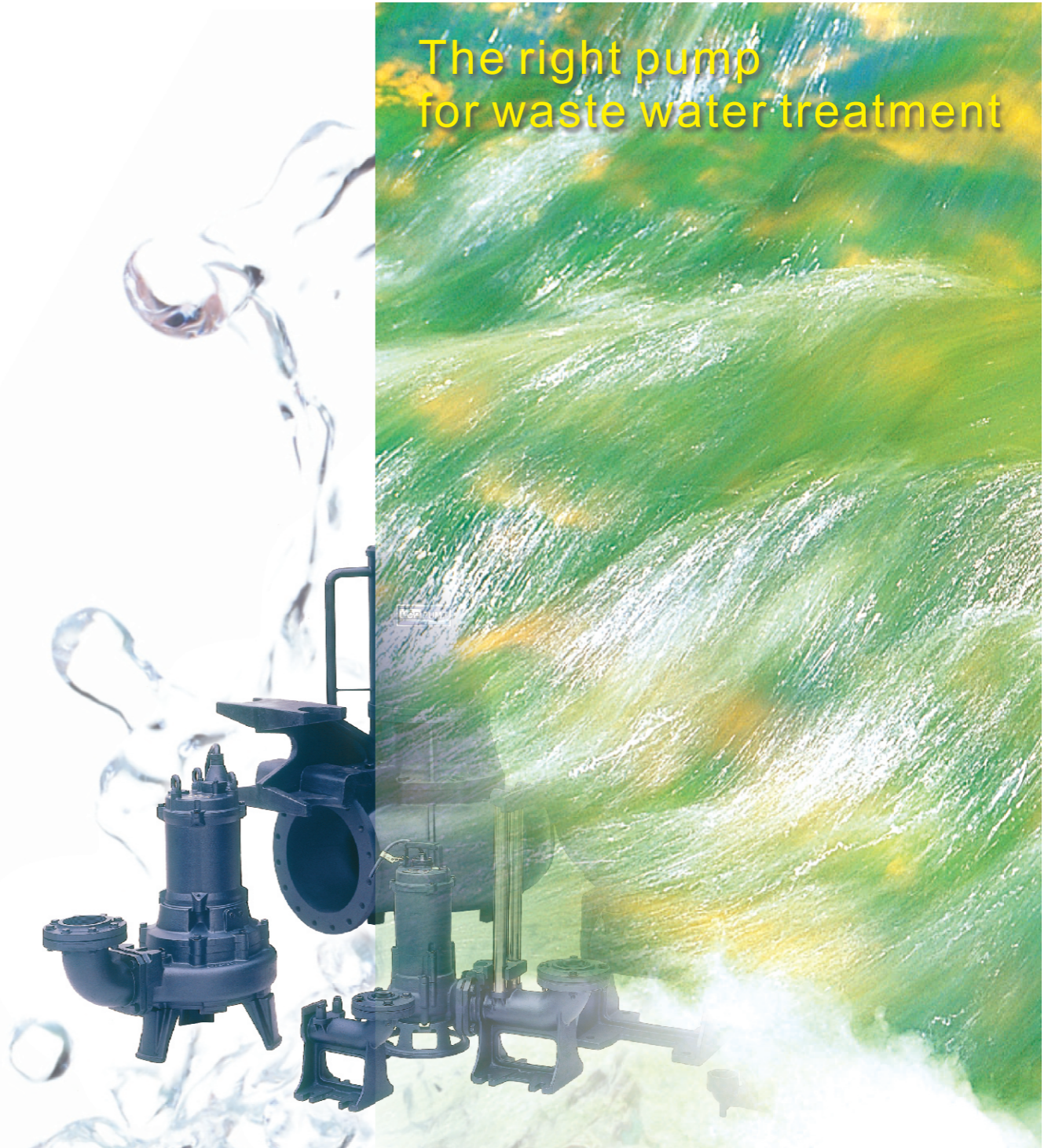
Model	DN	A	B	C	D	E	F	G	I	J	K	L	M	N	O	W1	W2	H1	H2	
AF-615	150	1035	708	187	449	260	135	280	340	95	2"	455	240	40	370	922	384	1043	153	
AF-620	50HZ	150	922	721	170	455	245	100	200	245	70	2"	325	176	24	280	798	329	948	10
	60HZ	150	1035	708	187	449	260	135	280	340	95	2"	455	240	40	370	922	384	1043	153
AF-630	150	966	765	170	497	245	100	200	245	70	2"	325	176	24	280	881	332	1031	10	
AF-815	200	1159	757	230	491	300	175	320	380	95	2"	545	269	41	400	410	948	1070	176	
AF-820	200	1159	757	230	491	300	175	320	380	95	2"	545	269	41	400	410	948	1070	176	
AF-830	200	1123	721	230	479	300	175	320	380	95	2"	545	269	41	400	983	420	1133	135	
	200	1465	1070	230	620	320	280	280	350	100	1 1/2"	550	200	80	370	1220	470	1340	150	
AF-1030S	250	1558	1025	330	676	460	340	360	460	120	2 1/2"	650	385	45	560	1412	602	1562	203	
AF-1040	250	1558	1025	330	676	460	340	360	460	120	2 1/2"	650	385	45	560	1412	602	1562	203	
AF-1050	250	1558	1025	330	676	460	340	360	460	120	2 1/2"	650	385	45	560	1412	602	1562	203	
AF-1060	250	1558	1025	330	676	460	340	360	460	120	2 1/2"	650	385	45	560	1412	602	1562	203	
AF-1430	350	1943	1203	440	813	650	500	580	700	135	4"	950	691	19	950	1625	872	1775	372	
AF-1440	350	1943	1203	440	813	650	500	580	700	135	4"	950	691	19	950	1625	872	1775	372	
AF-1650	400	1943	1203	440	813	650	500	580	700	135	4"	950	691	19	950	1625	872	1775	372	
AF-1660	400	1943	1203	440	813	650	500	580	700	135	4"	950	691	19	950	1625	872	1775	372	



AF SEWAGE PUMPS

150~400mm

The right pump for waste water treatment



We reserve the right to alter specifications of product at any time without giving prior notice.

HANA PUMP, LTD.
ALVEST MONT, LTD.
OOO ALVESTKRYM, LTD.



Agent:



HANA PUMP, LTD.
ALVEST MONT, LTD.
OOO ALVESTKRYM, LTD.

You need the submersible pumps.

Recommend to use submersible pump

The submersible pump is widely accepted by the industry all over the world since it was developed, it is the best method to save the cost and easy for operation, the following are the features of HCP pumps:

■ Compact

The submersible pump comprise an electric motor and pump portion directly coupled, the advantages are not only smaller in size and cost effective, but also they are more easier to use than other types of pumps.

■ Lower operation cost

When operating under the water, almost no need basic construction to support the pump, it can be installed in most of the locations.

■ Less equipment needed

No need suction pipe, only connecting discharge pipe for operation, the difficulties of suction head, excess piping and valves, as well as shaft alignment can be avoided, also no shelter needed to reduce the cost of basic construction.

■ Improving working environment

Less space needed at ground level to increase the availability of floor space, the submersible pump can be installed in uneven sump with quiet operation.

~FEATURES

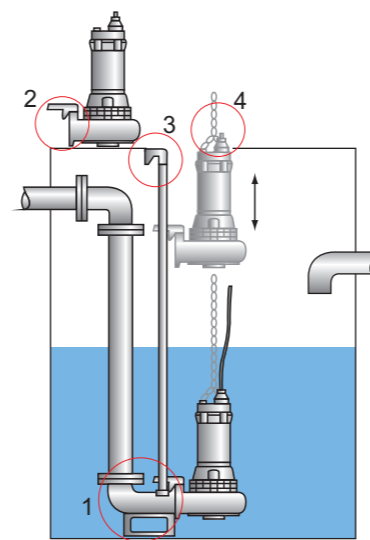
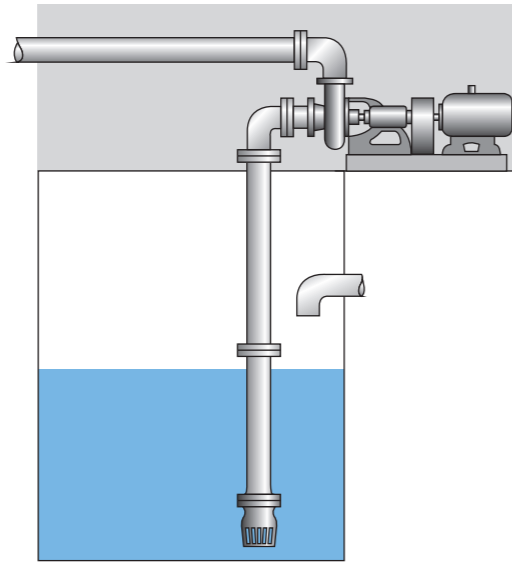
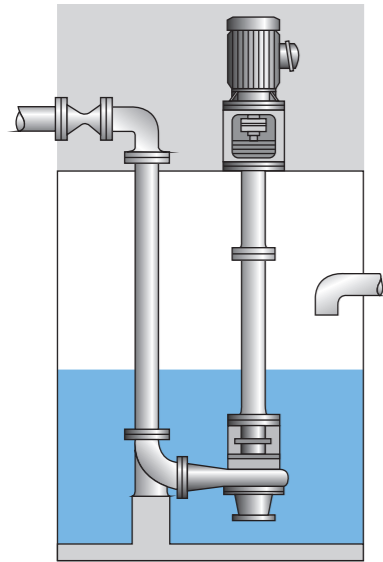
- ~International standard design: cable, autocut, dry-motor, silicon carbide mechanical seals, high grade cast iron offering highest quality and performance.
- ~Multiple impeller designs to handle solids laden sewage and/or fibrous substance.
- ~Superior abrasion resistant mechanical seal manufactured with silicon carbide to ensure the best seal effect.
- ~For extra protection, an oil seal ring has been installed under the oil chamber. This lip seal helps prevent the ingress of silt and sand into the lower seal chamber.
- ~Full product range offers low to high head and flow capabilities, with compact and easy installation. Also, available with TOS Guide Rail system, which allows automatic remote connection and disconnection without entry to the sump being required.



~Waste water treatment in building

PAST

NOW



TOS installation

■ GUIDE RAIL SYSTEM

The TOS body was bolted and fixed on the sump floor, through the stainless steel chain the guide rail steer the pump to the TOS body, it locks and releases automatically to the discharge connection.

To ensure working convenience and safety, the worker can hoist up the pump in short time without emptying the sump or go down the sump to remove the pump, due the pump can be installed and removed easily, whenever the pump is needed inspection or maintenance, the standby pump can be installed to avoid the loss and inconvenience during the down time.

■ TOS accessories of guide rail system:

- ① TOS body.....1 set.
- ② Sliding hook.....1 pc.
- ③ Fix rod.....1 pc.
- ④ SUS304 chain.....1 pc.

~APPLICATIONS

- ~Drainage of waste water from the liberation tank, purifying tank and sewage tank in water treatment plant.
- ~Drainage of waste water and inclusion containing fibrous admixtures from leather factory, dyeing factory and food processing factory.
- ~Sewage management, accumulated water, septic tank, stock farm.
- ~Pumping sewage from single and multifamily dwellings.
- ~Pumping sewage from hotels, restaurants, schools and public buildings.



~Waste water treatment in industry



~Tos-Guide Rail System Installation



~Actual Accomplishment

■ SPECIFICATION

Pumping liquid	Diameter(mm)	150~400	
	Liquid temp	0~40°C	
	Liquid nature	Aquaculture water industrial water and sewage	
	Max depth	30m	
Pump	Structure	Impeller	Enclosed channel non-clogging impeller
		Mech. Seal	Double Mechanical seal
		Protector	WD water derector(Optional)
	Material	Upper cover	FC-200
		Bearing	Heavy duty bearing
		Impeller	FC-200
		Casing	FC-200
	Wear ring	Stainless steel	
	M. Seal	Silicon carbide	
Motor	Type	Dry motor	
	Insulation polarity	F Class 4P/6P	
	Fequency	50Hz/60Hz	
	Protector	Miniature thermal protector(MTP)	
	Material	Frame	FC-200
		Main shaft	SUS420J2
		Cable	2PNCT

■ SPECIAL SPECIFICATION

Motor change	Complete series 3 phase 200V~480V, other specified rated voltages
Material change	Impeller material stainless steel
Other change	WD water detector and bearing over-heat protector are depend on each pump.
	Lengthen the cable
	Discharge change

Coating

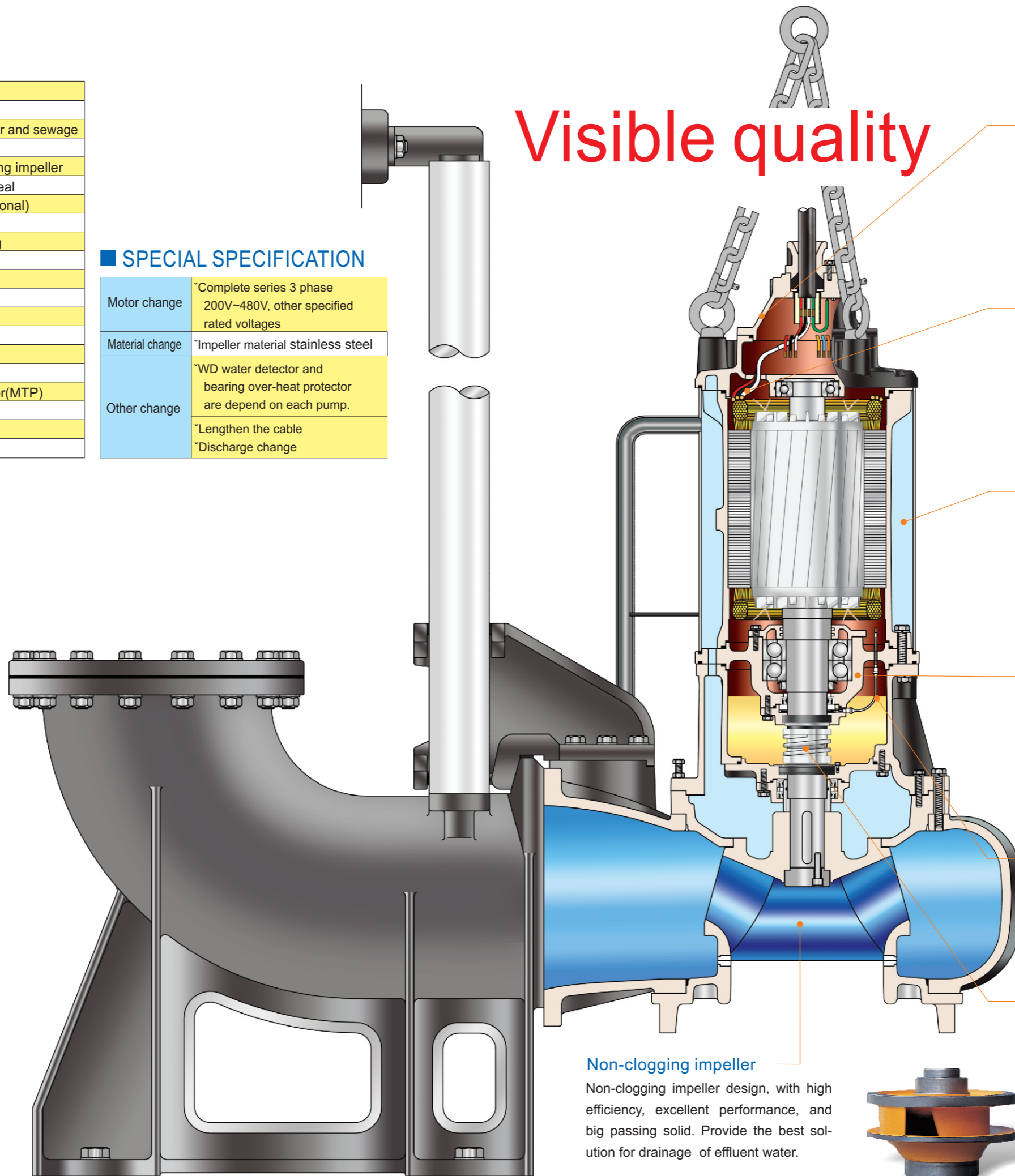
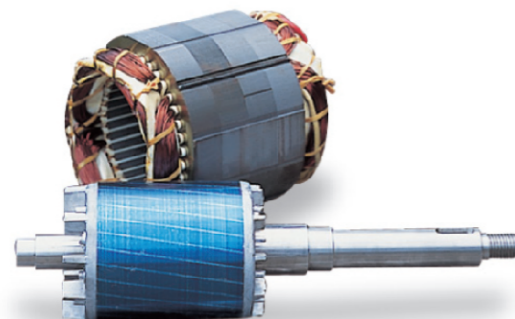
Pump surface coated with thickened Epoxy resisting corrupted from the corroding liquid. To provide better protection to pump. If pump is going to pumping strong corroding liquid could still chose the better materials.

Bearing

Adopting heavy duty and high quality imported bearing which perform better loading ability to prolong life. The design has qualified with following specification: bearing's dimension, basic rated load, install environment.

Electric motor

The motor are produced under strict quality control procedure. The stator winding is impregnated with vanish resin and keep in the oven for cure up to 8 hours for whole process to insure better insulating ability. To provide long run life ability.



Visible quality

Cable base

Enforced water resisting ability by epoxy encapsulated at the point where the cord enters the enclosure through the cord grommet and also at the point where the cord conductors exit the cord jacket, completely to insulating from humidity and water.

Motor over-heat protector

Installed MTP - Miniature Thermal Protector which is embedded in the windings of the motor. When the temperature of the windings increases to MTP acting point, and external motor protection circuit is activated to protect the motor from over heating.

Cooling jacket

The water flow through motor outer side, cooling down the temperature of motor. Could lower the pump's operation water level. To reach the lowest possible operation level. Increasing the pumping range. (Over 37Kw, CJ is requisite specification.)

Bearing over-heat protector (optional)

Installed BTP - Bearing Thermal Protector on the bearing side. When there is abnormal temperature raised over the rated temperature. The protector will open cutting off the power supply, to prolong the bearing life.

WD Water detector(optional)

Installed in the mechanical seal room to detect any water leakage from water infiltrating. To send a signal to control panel to send warning messages, preventing motor failure. To save maintenance cost.

High quality mechanical seal

The mechanical seal are made of silicon carbide. The better ability to resist against abrasion and heat with long life to prevent water leaking into the motor.

Non-clogging impeller

Non-clogging impeller design, with high efficiency, excellent performance, and big passing solid. Provide the best solution for drainage of effluent water.

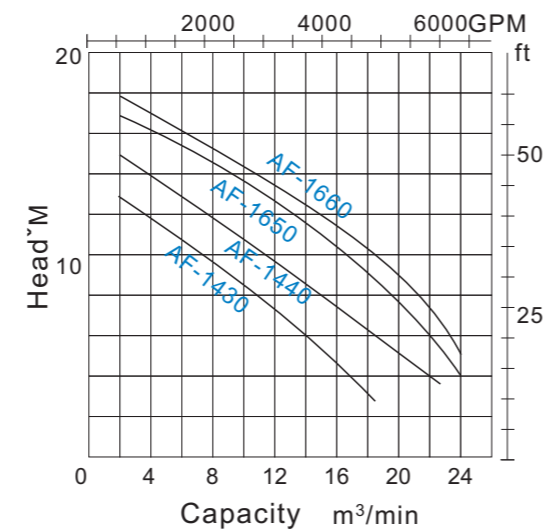
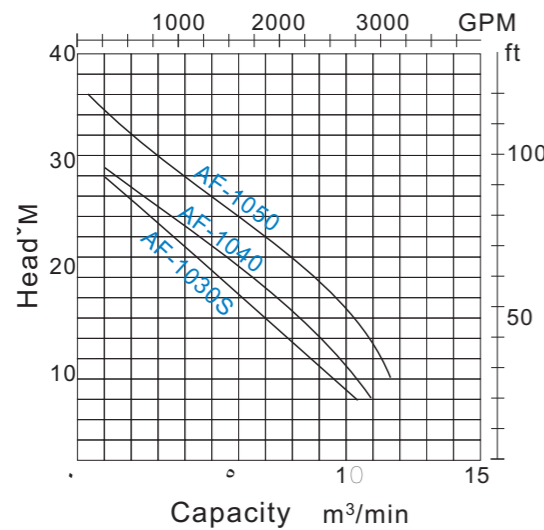
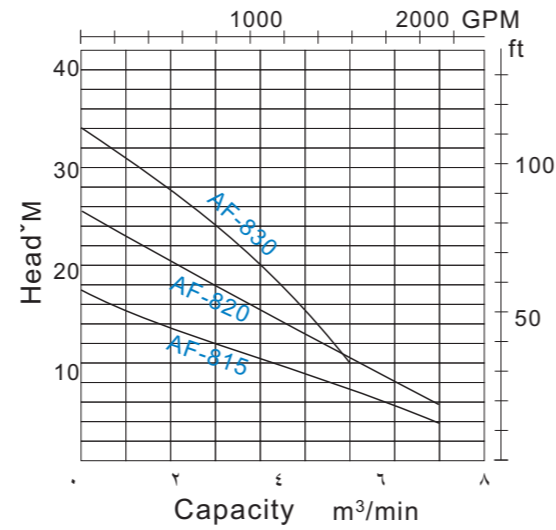
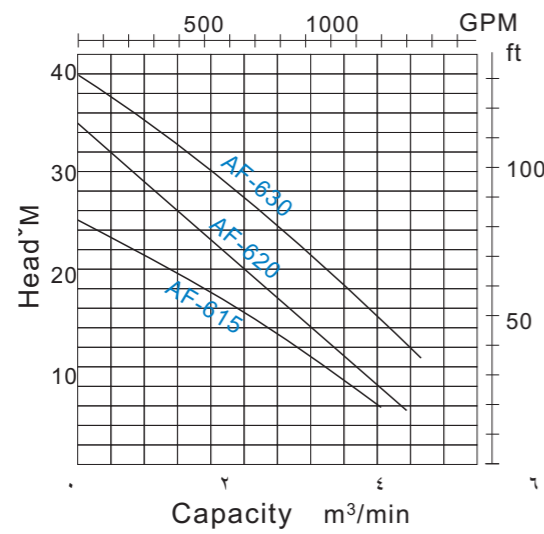


AF 50Hz(150~400mm)

SPECIFICATION

Hz	Model	Power HP(kW)	Discharge Inch(mm)	Phase	Pole	Start Method	Head M	Capacity m ³ /min	Head ft	Capacity GPM	Weight Kg(lb)	Solid passage mm
50	AF-615	15(11)	6(150)	3	4	Y- [~]	15.5	2.5	53	660	263(580)	70
	AF-620	20(15)	6(150)	3	4	Y- [~]	20	2.5	66	660	172(380)	76
	AF-630	30(22)	6(150)	3	4	Y- [~]	27.5	2.5	91	660	232(510)	76
	AF-815	15(11)	8(200)	3	4	Y- [~]	10	4.5	33	1200	277(610)	75
	AF-820	20(15)	8(200)	3	4	Y- [~]	14	4.5	46	1200	285(630)	75
	AF-830	30(22)	8(200)	3	4	Y- [~]	18	4.5	60	1200	310(680)	76
	AF-1030S	30(22)	10(250)	3	4	Y- [~]	14	7	46	1850	745(1640)	60
	AF-1040	40(30)	10(250)	3	4	Y- [~]	17	7	56	1850	765(1690)	60
	AF-1050	50(37)	10(250)	3	4	Y- [~]	22	7	73	1850	770(1700)	60
	AF-1430	30(22)	14(350)	3	6	Y- [~]	6	14	20	3700	950(2095)	120
	AF-1440	40(30)	14(350)	3	6	Y- [~]	8.5	14	28	3700	955(2105)	120
	AF-1650	50(37)	16(400)	3	6	Y- [~]	7.5	20	25	5285	965(2125)	120
	AF-1660	60(45)	16(400)	3	6		9	20	30	5285	970(2140)	120

PERFORMANCE CURVES



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