

PADOVA[®]

SUBMERSIBLE PUMP

50 Hz - GENERAL CATALOGUE

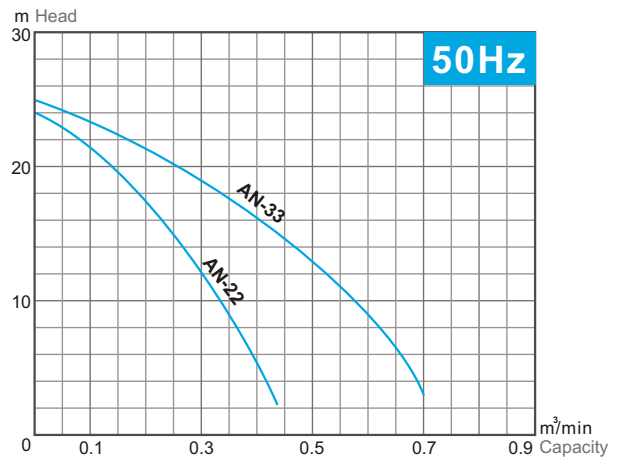
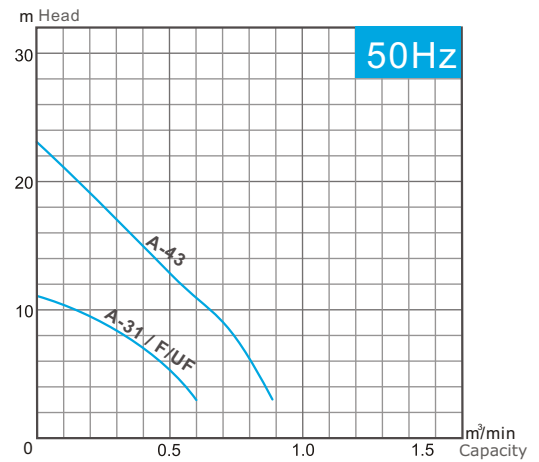
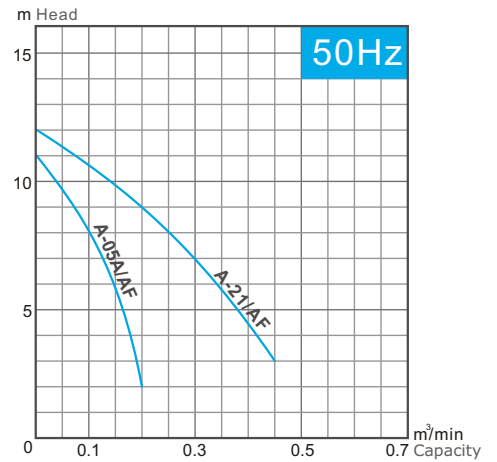
Made In Taiwan

More Than
20years



Non-Clogging Sewage Pump
Wastewater Pump - Stainless Steel Sewage Pump
Grinder Pump - Large Axial Flow Pump

A Series **Wastewater Pump**



FEATURES

1. Mini size, lightweight and superior to same grades of other pumps.
2. Motor frame, shaft, screws and strainer are made of stainless steel to provide long service life and attractive appearance.
3. Good performance, high water volume and energy saving, high wear resistant mechanical seal and oil seal are adopted to maintain long time operation.
4. Dependable laminated sheet of Si steel is adopted to motor; shaft and rotor are machining precisely to raise stability and efficiency of motor.
5. Inner cable wires and cable base are upgraded by filling EPOXY to raise humidity-resistance.
6. The product range is up to 15HP, dual SIC mechanical seals is built in (1 ½ Hp and above), and stress eliminating design is adopted (10Hp and above) to raise operating efficiency.
7. Superior design to easily disassemble motor and pump housing for maintenance.

• Float switch is available for model under 2Hp

APPLICATIONS :

Drainage of construction site and subway, flood control / prevent of public construction, irrigation, water circulation of aquaculture and landscape pond... etc.

SPECIFICATIONS

2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Standards		Length mm	Width mm	Height mm	Weight kg
				Head m	Capacity m³/min				
A-05A	1/2 (0.5)	2"	1 ϕ	8	0.1	230	160	345	14.5
A-05AF	1/2 (0.5)	2"	1 ϕ	8	0.1	230	160	345	14.5
A-21	1 (0.75)	2"	1 ϕ / 3 ϕ	9	0.2	250	180	460	19
A-21AF	1 (0.75)	2"	1 ϕ	9	0.2	250	180	460	19
A-31	1 (0.75)	3"	1 ϕ	6.5	0.4	290	180	460	20
A-31F/UF	1 (0.75)	3"	1 ϕ	6.5	0.4	290	180	460	20
AN-22	2 (1.5)	2"	1 ϕ	17	0.2	—	—	580	33
A-43	3 (2.2)	3"	3 ϕ	13	0.5	440	255	550	48.5
AN-33	3 (2.2)	3"	3 ϕ	19	0.3	—	—	560	49

F Series Non-Clogging Sewage Pump



F-05A

F-31U

F-32TU



Non-clogging Impeller



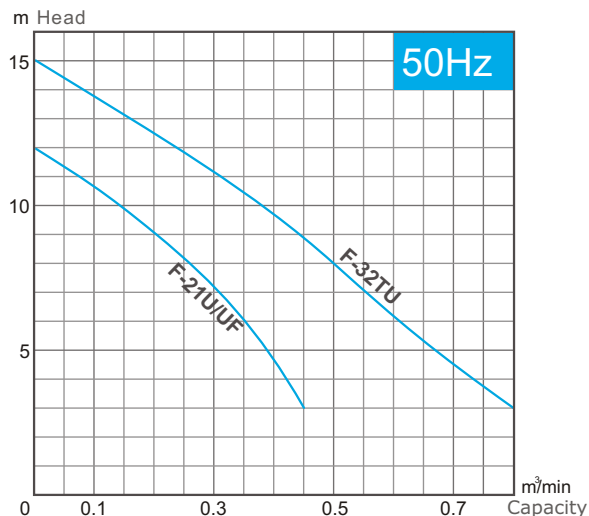
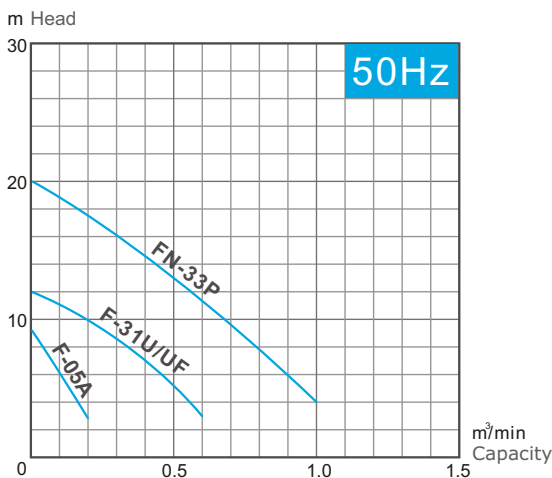
AC Protector

◆ FEATURES

1. AC protector and thermal protector are built-in to prevent motor overheat and overload (except F-05A).
 2. Dependable laminated sheet of Si steel is adopted to motor; shaft and rotor are machining precisely to raise stability and efficiency of motor. Motor frame, shaft, screws are made of stainless steel to provide long service life and attractive appearance.
 3. Impeller is designed to special water flow, muddy liquid and other various wastewater can be efficiently drained.
 4. The product range is up to 15Hp, dual SIC mechanical seal is built in (1 ½ HP and above)
 5. Inner cable wires and cable base are upgraded by filling EPOXY to raise humidity-resistance.
 6. Superior design to easily disassemble motor and pump housing for maintenance.
- Float switch is available for model under 2Hp

◆ APPLICATIONS :

Drainage of basement, food market and animal husbandry, water treatment of wastewater plant, drainage of water refining tank and drainage of various industrial wastewater... etc.



◆ SPECIFICATIONS

2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Standards		Free Passage mm	Length mm	Width mm	Height mm	Weight kg
				Head m	Capacity m ³ /min					
F-05A	1/2 (0.4)	2"	1 ϕ	6	0.1	30	220	145	350	10
F-05AF	1/2 (0.4)	2"	1 ϕ	6	0.1	30	220	145	350	10
F-21U	1 (0.75)	2"	1 ϕ / 3 ϕ	9	0.2	12	260	210	460	19
F-21UF	1 (0.75)	2"	1 ϕ	9	0.2	12	260	210	460	19
F-31U	1 (0.75)	3"	1 ϕ	6.5	0.4	12	300	210	460	20
F-31UF	1 (0.75)	3"	1 ϕ / 3 ϕ	6.5	0.4	12	300	210	460	20
F-32TU	2 (1.5)	3"	1 ϕ / 3 ϕ	8	0.5	20	370	220	590/530	41/38
FN-33P	3 (2.2)	3"	3 ϕ	13	0.5	30	440	255	550	49

AF
Series Sewage Pump



100AFU45.5



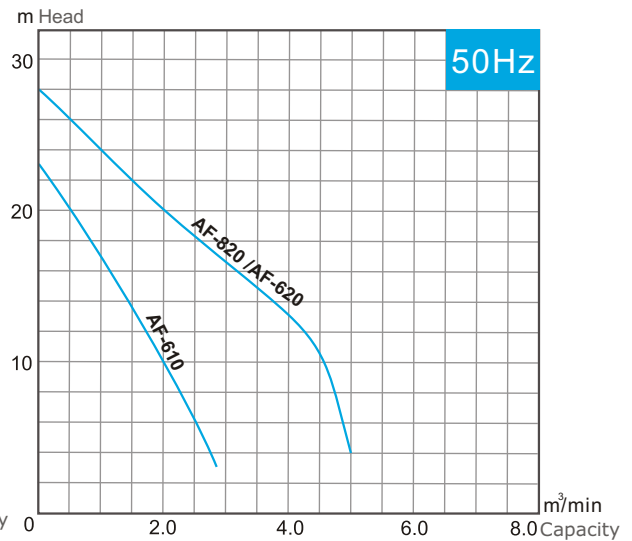
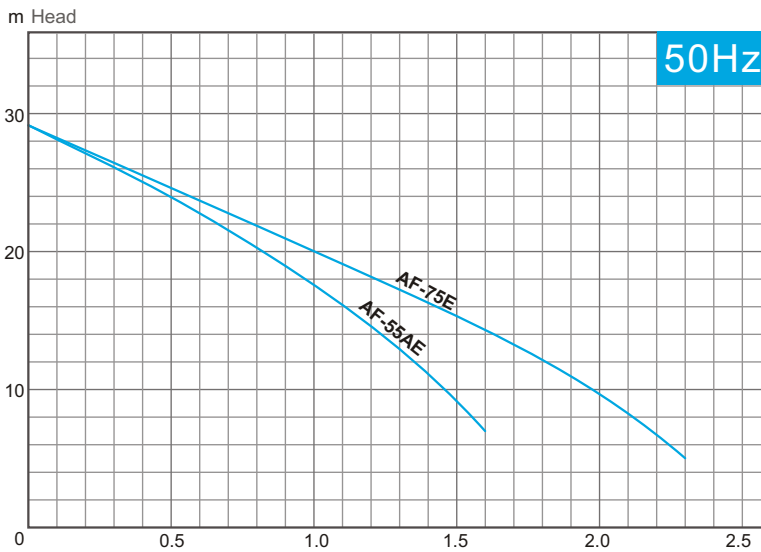
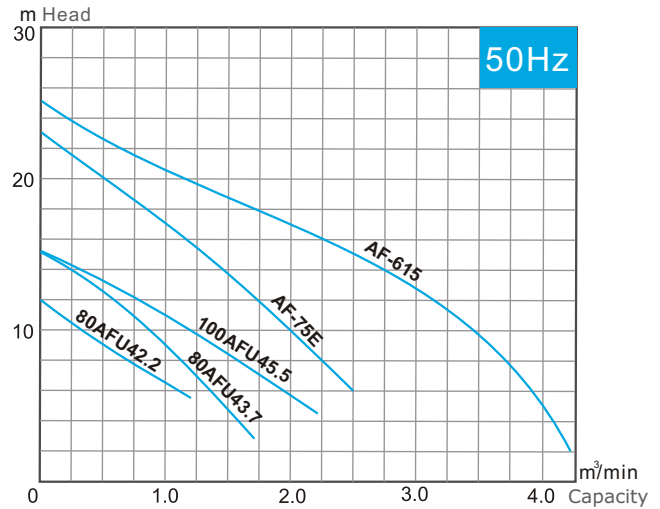
AF-55AE

◆ **APPLICATIONS :**

Drainage of food market, animal husbandry and water refining tank, water treatment of wastewater plant, drainage of basement, food industries, leather industries, pulp and paper industries, dyeing industries, and various industrial wastewater... etc.

◆ **FEATURES**

1. High efficient motor is adopted, shaft and rotor are machining precisely to raise stability. Serious quality control and high class of insulation are provided for long time operation and service life.
2. Overload protector is available (Option).
3. Dependable dual mechanical seals are adopted for high wear and heat resistance, and to maintain long life.
4. Impeller is designed for special water flow and big capacity of pump housing to meet dependable performance, and high efficiency for various wastewater.
5. Inner cable wires and cable base are upgraded by filling EPOXY to raise humidity-resistance.



◆ **SPECIFICATIONS**

4P-1500RPM / 2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Pole	Start Method	Standards		Free Passage mm	Length mm	Width mm	Height mm	Weight kg
						Head m	Capacity m ³ /min					
AF-55AE	7½ (5.5)	3"¼"	3 ϕ	2	—	24	0.5	35	470	250	570	60
AF-75E	10 (7.5)	4"	3 ϕ	2	—	20	1.0	40	560	310	700	102
AF-610	10 (7.5)	6"	3 ϕ	4	Direct	10	2.0	45	780	480	820	184
AF-615	15 (11)	6"	3 ϕ	4	Y- Δ	17	2.0	50	940	480	950	250
AF-620	20 (15)	6"	3 ϕ	4	Y- Δ	20	2.0	55	940	480	950	250
AF-820	20 (15)	8"	3 ϕ	4	Y- Δ	13	4.0	60	950	480	950	270
80AFU42.2	3 (2.2)	3"	3 ϕ	4	Direct	9	0.5	40	560	310	620	80
80AFU43.7	5 (3.7)	4"	3 ϕ	4	Direct	9	1.0	40	560	310	680	86
100AFU45.5	7½ (5.5)	4"	3 ϕ	4	Direct	11	1.0	40	600	360	710	108

AG Series Submersible Slurry Dewatering Pump



80AGN23.7



Agitator



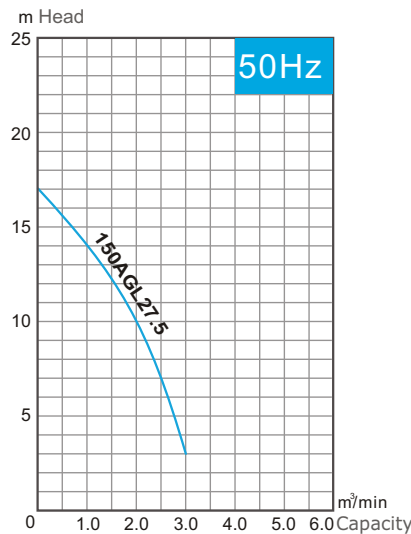
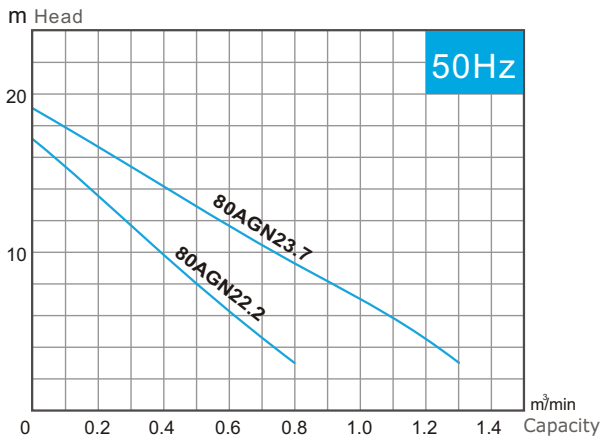
AC Protector

APPLICATIONS :

Drainage of Construction site; drainage of subway/tunnel; wastewater treatment of ironworks; mobile use for drainage of public facilities; removal of sludge at harbor/river; any other wastewater treatment of industries...etc.

FEATURES

1. Dry-type model with over load protector is built-in to protect motor from overheat and overload.
2. Inner cable wires and cable base are upgraded by filling EPOXY to raise humidity-resistance.
3. Motor frame and casing are made of stainless steel and water-cooling jacket design increases efficiency of heat diffusion.
4. Stainless steel shaft is calibrated in dynamic balance test. Dual mechanical seal SIC/SIC are fitted and dual oil seals design raises effects of dust-proof.
5. Impeller and agitator are made of high chrome alloy steel (HCR, 2HP above), High wear resistance, and calibrated by dynamic balance test.
6. Pump housing and stress eliminating plate are made of wear-resistant and malleable cast iron, and stress eliminating design is adopted between pump housing and mechanical seal lid to reduce flow stress.



SPECIFICATIONS

4P-1500RPM / 2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Pole	Standards		Free Passage mm	Max Diameter mm	Height mm	Weight kg
					Head m	Capacity m³/min				
80AGN22.2	3 (2.2)	3"	1 ϕ / 3 ϕ	2	8	0.5	10	230	680/695	55
80AGN23.7	5 (3.7)	3"/4"	3 ϕ	2	7	1.0	10	230	720	60
150AGL27.5	10 (7.5)	6"	3 ϕ	4	10	2.0	25	380	840	115

GF Submersible
Series | Grinder Pump



32GF21.5



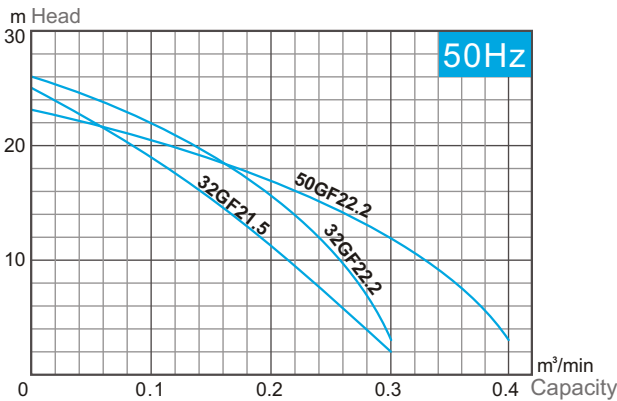
50GF22.2

◆ **APPLICATIONS :**

Pumping of residential wastewater from toilets, bathtubs, and washing machines; drainage of subways/tunnel, wastewater treatment of public laundry, textile industries and other industries.

◆ **FEATURES**

1. Grinding and shredding effects are applied to raise operating efficiency and able to handle soft solids in suspension or organic wastes in water.
2. Portable, non-clogging design and high wear-resistance are applied to grinding ring and shredding ring.
3. Dependable mechanical seal and o-ring are adopted to maintain long time operation and high precision is applied to raise stability and efficiency of motors.
4. Inner cable wires and cable base are upgraded by filling EPOXY to raise humidity-resistance.
5. Motor frame, shaft, screw are made of stainless steel to make long service life.



◆ **SPECIFICATIONS**

2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Standards		Length mm	Width mm	Height mm	Weight kg
				Head m	Capacity m ³ /min				
32GF21.5	2 (1.5)	1 1/4"	1 ϕ / 3 ϕ	19	0.1	300	210	560/470	36/33
32GF22.2	3 (2.2)	1 1/4"	3 ϕ	22	0.1	300	210	520	37
50GF22.2	3 (2.2)	2"	3 ϕ	17	0.2	300	210	520	38

Stainless Steel Sewage Pump

◆ FEATURES

1. Stainless steel 304/316 materials are adopted for corrosive-resistance.
2. Chemical-resistant SIC mechanical seal and fluorine gasket are adopted to provide reliable sealing effects for chemical wastewater.
3. Precision casting method is used and the weight is 25% less than same grades of other pumps.
4. The base of cable is made out of integral plastic to upgrade humidity-resistance.
5. Italian techniques and professional design are adopted for water resistance.
6. The shaft is made of stainless steel and calibrated in dynamic balance for long time operation of bearing.

Float switch is available for model under 2Hp

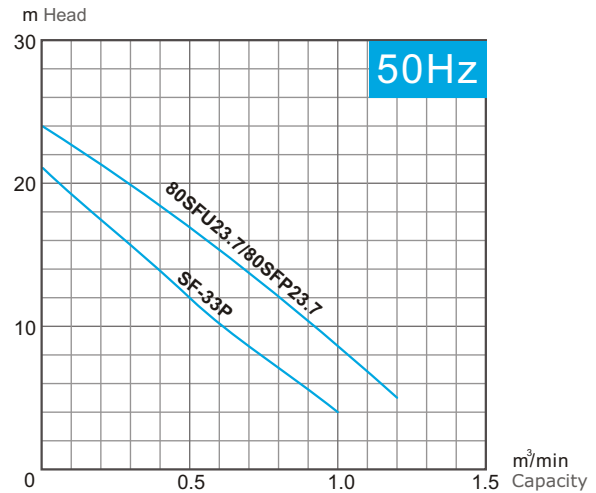
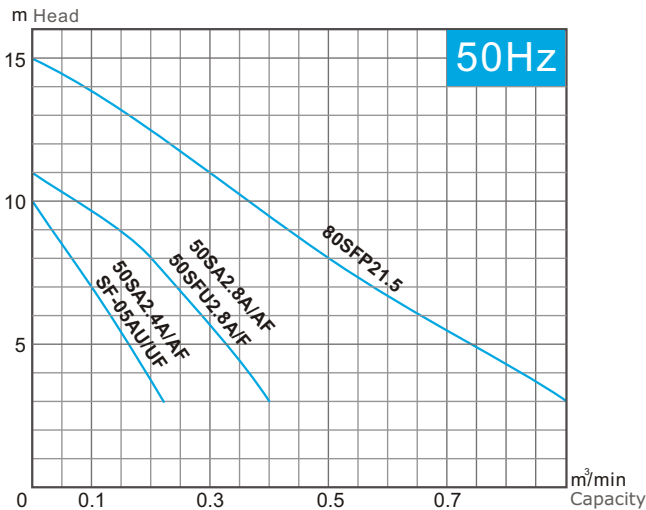
◆ APPLICATIONS :

1. Wastewater treatment of chemical industries, metal industries, dyeing industries, medical industries, pulp and paper industries.
2. Wastewater treatment of hospital and laboratory, Animal Husbandry and other comprehensive wastewater treatment...etc.



80SFP21.5

50 SA2.8A



◆ SPECIFICATIONS

2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Standards		Length mm	Width mm	Height mm	Weight kg
				Head m	Capacity m ³ /min				
SF-05AU	1/2 (0.5)	2"	1 ϕ / 3 ϕ	7	0.1	230	160	345	14
SF-05AUF	1/2 (0.5)	2"	1 ϕ / 3 ϕ	7	0.1	230	160	345	14
50SA2.4A	1/2 (0.5)	2"	1 ϕ / 3 ϕ	7	0.1	230	160	345	14
50SA2.4AF	1/2 (0.5)	2"	1 ϕ / 3 ϕ	7	0.1	230	160	345	14
50 SFU 2.8A	1 (0.75)	2"	1 ϕ / 3 ϕ	8	0.2	260	210	440	19
50 SFU 2.8AF	1 (0.75)	2"	1 ϕ / 3 ϕ	8	0.2	260	210	440	19
50 SA2.8A	1 (0.75)	2"	1 ϕ / 3 ϕ	8	0.2	250	180	440	18
50 SA2.8AF	1 (0.75)	2"	1 ϕ / 3 ϕ	8	0.2	250	180	440	18
80 SFP 21.5	2 (1.5)	3"	1 ϕ / 3 ϕ	8	0.5	315	230	565/510	35/31
SF-33P	3 (2.2)	3"	3 ϕ	12	0.5	440	255	550	50
80 SFP 23.7	5 (3.7)	3"/4"	3 ϕ	17	0.5	440	255	560	53
80 SFU 23.7	5 (3.7)	3"/4"	3 ϕ	17	0.5	440	255	560	53

IC Series **Submersible Dewatering Pump**



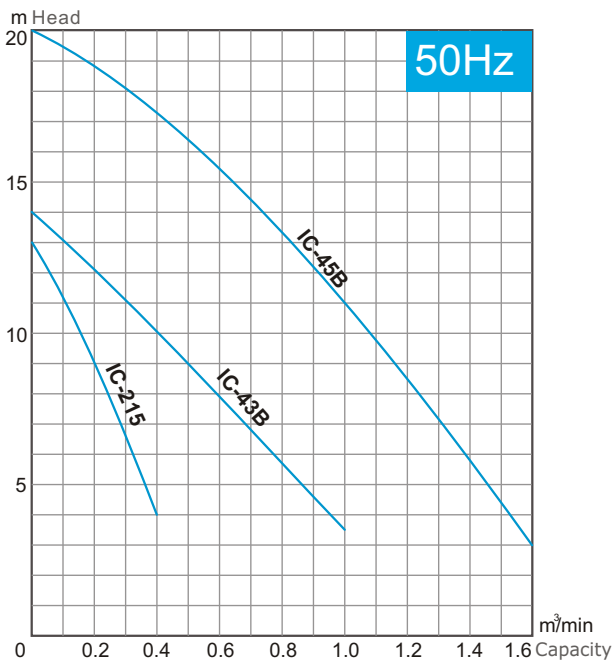
IC-215

◆ **APPLICATIONS :**

Lifting of well water and underground water,, aqua farm, agriculture irrigation, hydraulic engineering and drainage of subway...etc.

◆ **FEATURES**

1. Two features (Water delivery and extraction) in one design can be applied as a landed water pump by removing strainer and connecting a check valve.
2. Water-cooling jacket design prevents overheat after long time operation, and impeller is designed regards to slicing concept for high water volume and high head.
3. Special high head design can be to high head above 15 meters.
4. Adopted dual SIC mechanical seal (3HP and above).
5. Check valve is available (option)
6. Motor frame and outer cover are made of stainless steel.



◆ **SPECIFICATIONS**

2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Standards		Max Diameter mm	Height mm	Weight kg
				Head m	Capacity m ³ /min			
IC-215	1½ (1.1)	2"	1 ϕ / 3 ϕ	9	0.2	180	490	28
IC-43B	3 (2.2)	4"	3 ϕ	9	0.5	245	530	45
IC-45B	5 (3.7)	4"	3 ϕ	11	1.0	270	680	65

L Series | **Large Axial Flow Pump**

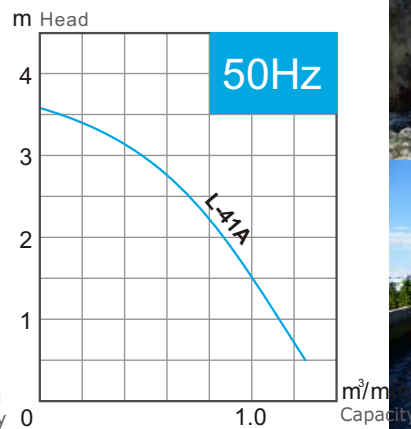
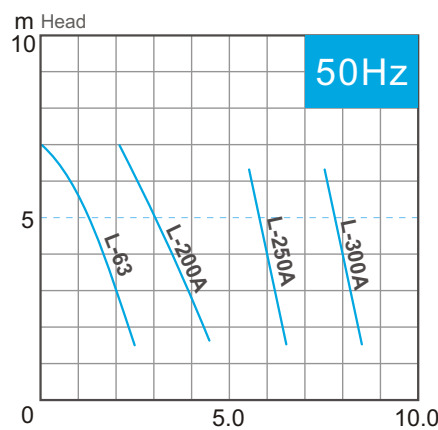


◆ FEATURES

1. Axial flow design to meet large flow capacity, energy saving and easy installation.
2. Easy to operate, no need to use high voltage power supply and less vibration and noise caused.
3. Pump body and motor frame/casing are made of alloy copper and stainless steel to raise durability and wear-resistance.
4. Dual mechanical seals are adopted for higher wear-resistance in seawater, muddy liquid and wastewater.
5. Pump outer casing, motor frame and shaft are made of stainless steel. High precise screwing positions are designed to easy disassemble and maintenance.
6. Inner cable wires and cable base are upgraded by filling EPOXY to raise humidity-resistance.
7. Economical types (cast-iron made) are available for customized requirements.

◆ APPLICATIONS :

Agriculture irrigation, drainage of fishing pond, aqua farm, subway, and large flow capacity in industries, flood control...etc.



◆ SPECIFICATIONS

4P-1500RPM / 2P-3000RPM

Model	Output Hp (kW)	Discharge inch	Phase ϕ	Pole	Standards		Max Diameter mm	Height mm	Weight kg
					Head m	Capacity m³/min			
L-41A	1 (0.75)	4"	1 ϕ / 3 ϕ	2	1.5	1.0	240	490	28
L-63	3 (2.2)	6"	3 ϕ	4	3	2.0	290	740	70
L-200A	7½ (5.5)	8"	3 ϕ	4	4	3.5	340	920	120
L-250A	10 (7.5)	10"	3 ϕ	4	4	6.0	370	1000	180
L-300A	16 (12)	12"	3 ϕ	4	4	8.0	430	1080	225

Mechanical seals are engineered for every Padova pump models to offer long last usage and prevent leakage for the Submersible pump in Sewage, Wastewater, Dewatering application.

Single/Double mechanical seals with Single spring coiled design to more flexibility to accommodate misalignment, shaft deflection, and break away shock loading. This can be preventing from leakage issue.

For fresh water conditions, Carbon Ceramic maybe used. as it is the most cost effective.

Silicon Carbide seal is effective for a wide range pumping applications, an have good great wear resistance. High strength and temperature resistance.

an additional Oil seal between the impeller and shaft provides initial waterproofing and sand protection from reaching the mechanical seal for extending longer operation life cycle.



**Double Mechanical Seals
(Silicon/Silicon-
Carbon/Ceramic)**



**Double Mechanical Seals
(Carbon/Ceramic-
Carbon/Ceramic)**



**Single Mechanical Seal
(Carbon/Ceramic)**



Oil Seal

Unit of measurements:

HP	1 HP=0.746kW 1 kW = 1.34 HP	
Length	1m=100cm 1cm=10mm 1inch=2.54cm 1ft=0.3048m	
Capacity	1m ³ /min=1000 l/min 1gal/min=3.785 l/min(USA) CMD= m ³ /day CMH= m ³ /hr CMM= m ³ /min CMS= m ³ /sec LPM=l/mim GPM= gal/min	
Disc.diameter	Discharge	Suggesting capacity
	1"(25mm)	0.04 m ³ /min
	1 1/4"(32 mm)	0.06 m ³ /min
	1 1/2"(40mm)	0.1 m ³ /min
	2"(50mm)	0.2 m ³ /min
	2 1/2"(65mm)	0.4 m ³ /min
	3"(80mm)	0.5 m ³ /min
	4"(100mm)	1.0 m ³ /min
	5"(125mm)	1.5 m ³ /min
	6"(150mm)	2.0 m ³ /min
8"(200mm)	4.0 m ³ /min	
10"(250mm)	6.0 m ³ /min	
12"(300mm)	10.0 m ³ /min	
Insulation class	E class120°C	B class130°C
	F class155°C	H class180°C

Protector & Sensor

Auto-cut Protector

The Auto-cut protector is an automatic cut-off switch, installed inside the motor. The switch automatically cuts off power to the motor, in the event of a power surge or overheating. The switch automatically restarts the motor once the temperature drops to about 60~70°C.



Overheat Protector

The overheat protector is an automatic cut-off switch built into the single-phase motor, to monitor the temperature of the inner motor. The switch automatically cuts off power if the motor temperature exceeds the maximum allowable operating temperature (insulator class max. temperature). The switch automatically restarts the motor once the temperature drops to about 60~70°C.



Miniature Thermal Sensor (MTS)

MTS is embedded in every phase of the motor winding, and transmits a signal to the control panel. Control can be setup to cut off power when MT is activated, and restart when MT is deactivated.

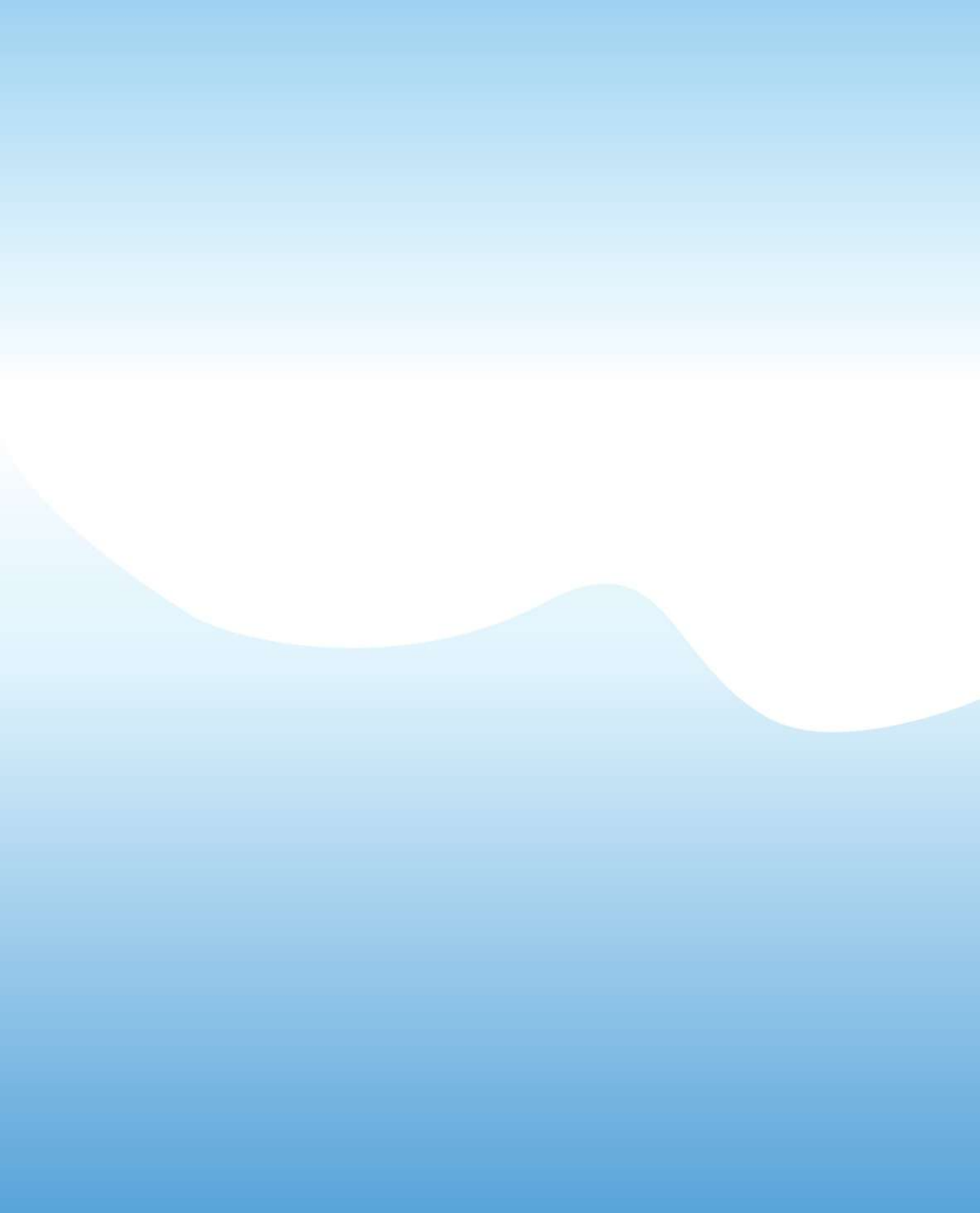


MOISTURE SENSOR (MS)

Moisture sensor is used to detect moisture leakage through the mechanical seals. This occurs when the seal has been worn down or damaged; if moisture is found, the sensor will then trigger and transmit a signal to control panel. The control panel will then set off a warning signal and/or power off, to protect pump motor. If this occurs, schedule pump maintenance to replace mechanical seal.







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