

F SERIES

SEWAGE / EFFLUENT SUBMERSIBLE PUMPS

POWER : 0.5~1HP (0.4~0.75kW)

MAX.HEAD : 50feet (15m)

MAX.FLOW : 158US.GPM (0.6m³/min)



PRODUCT NOMENCLATURE

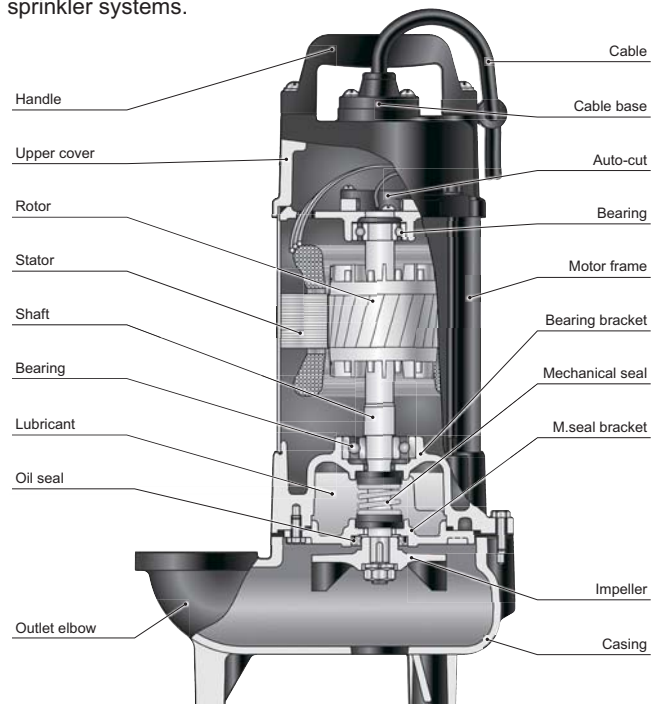
Example : F - 2 1 U
 Type Discharge HP Impeller
 inch

FEATURE

- A precision manufactured motor is achieved utilizing the highest standard of quality control. To ensure a 100% quality manufactured motor with stable characteristics and a highest efficiency. All rotor adopted heat treatment method for drive shaft assembling and stator winding impregnated with varnish and heat dried in industrial oven.
- HCP's professional assembly line, complimented with a synthesized production test ensures the highest level of final pump quality.
- Standard accessories include : cable with an epoxy resin sealed water-resistant cable base, AC thermal motor protector, dual mechanical seal and lip seal design.
- U type Vortex impeller or P type cutter impeller design to handle any wastewater or sewage application with the best de-watering efficiency.
- Full product line range, providing the best service, with high impact resistance and light weight , for ease service and transportation.
- The F-05A is an extremely practical and low temperature oil filled motor and single seal design pump.

APPLICATIONS

- Drainage of sewage from the building basements, hotel industry, wastes water from factories.
- Drainage of sewage from industrial process factories.
- Emptying of septic tanks, cesspits and sewage pump stations.
- Pumping surface and drainage water from garages and sprinkler systems.



F SERIES SEWAGE / WASTEWATER SUBMERSIBLE PUMPS

F-05A · F-05U · F-21U · F-31U · F-21P

SPECIFICATIONS

Item		Description
Limits of Use	Liquid Temp.	0~40°C(32~104°F)
	Applications	General wastewater · Sewage and Industrial water
Type	Frequency	60Hz
	Motor	2P(3600rpm) · Dry Motor (F-05A:Oil Motor)
	Insulation	Class B
	Protection	IP68
	Protector	Auto-cut (0.5HP 10:Overheat)
	Bearing	Ball type
	M.seal	Double M.seals (F-05A:Single M.seals)
	Impeller	Semi-open
Material	Upper Cover	FC200
	Motor Frame	SUS304
	Shaft End	SUS410
	M.seal	CA/CE & SiC/SiC (F-05A:CA/CE)
	Casing	FC200
	Impeller	FC200 (F-05A:PA)
	Cable	VCT or H07RN-F or SJOW/SOW
Optional		—



F-05A



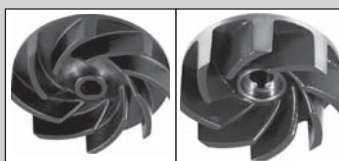
F-05U · F-21U



F-31U



F-21P



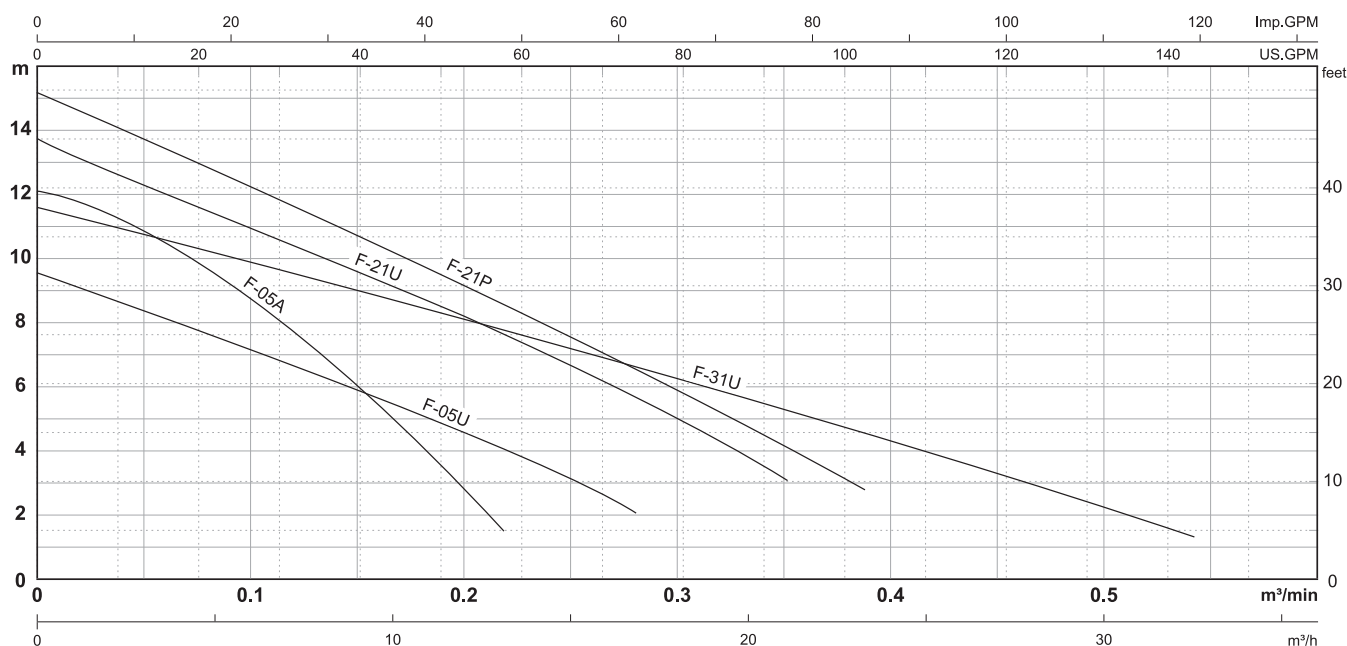
U Type Semi-open Impeller



P Type Semi-open Impeller

Model	Power HP(kW)	Discharge inch(mm)	Standard		MAX		Solid Passage mm(inch)	Weight(W/O Cable)		Phase Voltage	1Ø	1Ø	3Ø	3Ø	3Ø	3Ø	3Ø
			m-m³/min	ft-GPM	m-m³/min	ft-GPM		1Ø-kg(lb)	3Ø-kg(lb)		110V	220V	220V	230V	380V	460V	575V
F-05A	0.5(0.4)	2"(50)	8-0.1	25-26	12-0.23	40-60	10(3/8")	12(26)	11(24)	Fullload Ampere	6.0	3.0	—	—	—	—	—
F-05U	0.5(0.4)	2"(50)	5.5-0.15	18-40	9.5-0.3	30-80	35(1 3/8")	16(35)	15(33)		6.6	3.3	2.3	2.2	1.3	1.1	1.0.
F-21U	1(0.75)	2"(50)	8-0.2	25-52	13.5-0.4	45-106	35(1 3/8")	17(37)	16(35)		10.4	5.2	3.4	3.3	1.9	1.6	1.3
F-31U	1(0.75)	3"(80)	6-0.3	20-80	11-0.6	35-158	30(1 1/8")	18(40)	17(37)		10.4	5.2	3.4	3.3	1.9	1.6	1.3
F-21P	1(0.75)	2"(50)	9-0.2	30-52	15-0.4	50-106	22(7/8")	18(40)	17(37)		10.4	5.2	3.4	3.3	1.9	1.6	1.3

PERFORMANCE CURVES



Model	Power HP(kW)	Discharge inch(mm)	H:feet	10'	15'	20'	25'	30'	35'	40'	45'	Q:m³/min		0.05	0.1	0.15	0.2	0.25	0.3	0.4	0.5
												Q:m³/h	Q:m³/h	3	6	9	12	15	18	24	30
F-05A	0.5(0.4)	2"(50)	Q:US.GPM	52	46	39	32	24	14	—	—	H:m	10.9	8.8	6.1	2.8	—	—	—	—	—
F-05U	0.5(0.4)	2"(50)		67	53	39	21	5	—	—	—			8.4	7.2	5.9	4.6	3.1	—	—	—
F-21U	1(0.75)	2"(50)		93	83	71	58	44	29	14	—			12.3	11.0	9.6	8.2	6.7	5.0	—	—
F-31U	1(0.75)	3"(80)		122	102	81	60	38	14	—	—			10.7	9.9	9.0	8.1	7.2	6.3	4.3	2.3
F-21P	1(0.75)	2"(50)		101	89	78	65	53	40	27	11			13.7	12.2	10.7	9.2	7.6	5.9	—	—

F SERIES

SEWAGE / EFFLUENT SUBMERSIBLE PUMPS

POWER : 2~5HP (1.5~3.7kW)

MAX.HEAD : 90feet (27.5m)

MAX.FLOW : 345US.GPM (1.3m³/min)



PRODUCT NOMENCLATURE

Example:

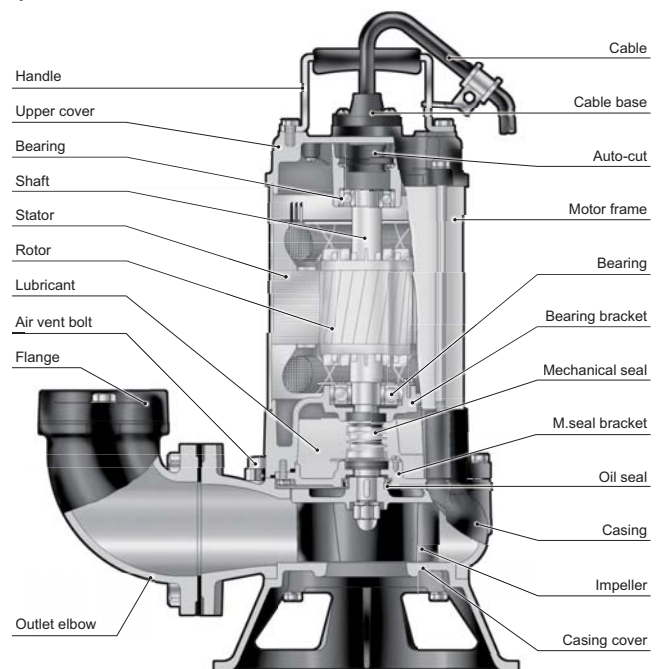
F	-	3	3	P
Type		Discharge inch	HP	Impeller

FEATURE

- A precision manufactured motor is achieved utilizing the highest standard of quality control. To ensure a 100% quality manufactured motor with stable characteristics and a highest efficiency. All rotor adopted heat treatment method for drive shaft assembling and stator winding impregnated with varnish and heat dried in industrial oven.
- HCP's professional assembly line, complimented with a synthesized production test ensures the highest level of final pump quality.
- Standard accessories include : cable with an epoxy resin sealed water-resistant cable base, AC thermal motor protector, dual mechanical seal and lip seal design.
- U type Vortex impeller or P type cutter impeller design to handle any wastewater or sewage application with the best de-watering efficiency.
- Full product line range, providing the best service, with high impact resistance and light weight , for ease service and transportation.

APPLICATIONS

- Drainage of sewage from the building basements, hotel industry, wastes water from factories.
- Drainage of sewage from industrial process factories.
- Emptying of septic tanks, cesspits and sewage pump stations.
- Pumping surface and drainage water from garages and sprinkler systems.



F SERIES SEWAGE / WASTEWATER SUBMERSIBLE PUMPS

F-32TU · F-33U · F-35U

SPECIFICATIONS

Item		Description
Limits of Use	Liquid Temp.	0~40°C(32~104°F)
	Applications	General wastewater · Sewage and Industrial water
Type	Frequency	60Hz
	Motor	2P(3600rpm) · Dry Motor
	Insulation	Class B (5HP:Class F)
	Protection	IP68
	Protector	Auto-cut
	Bearing	Ball type
	M.seal	Double M.seals
	Impeller	Semi-open
Material	Upper Cover	FC200
	Motor Frame	SUS304
	Shaft End	SUS403
	M.seal	CA/CE & SiC/SiC
	Casing	FC200
	Impeller	FC200
	Cable	VCT or H07RN-F or SJOW/SOW
Optional		—



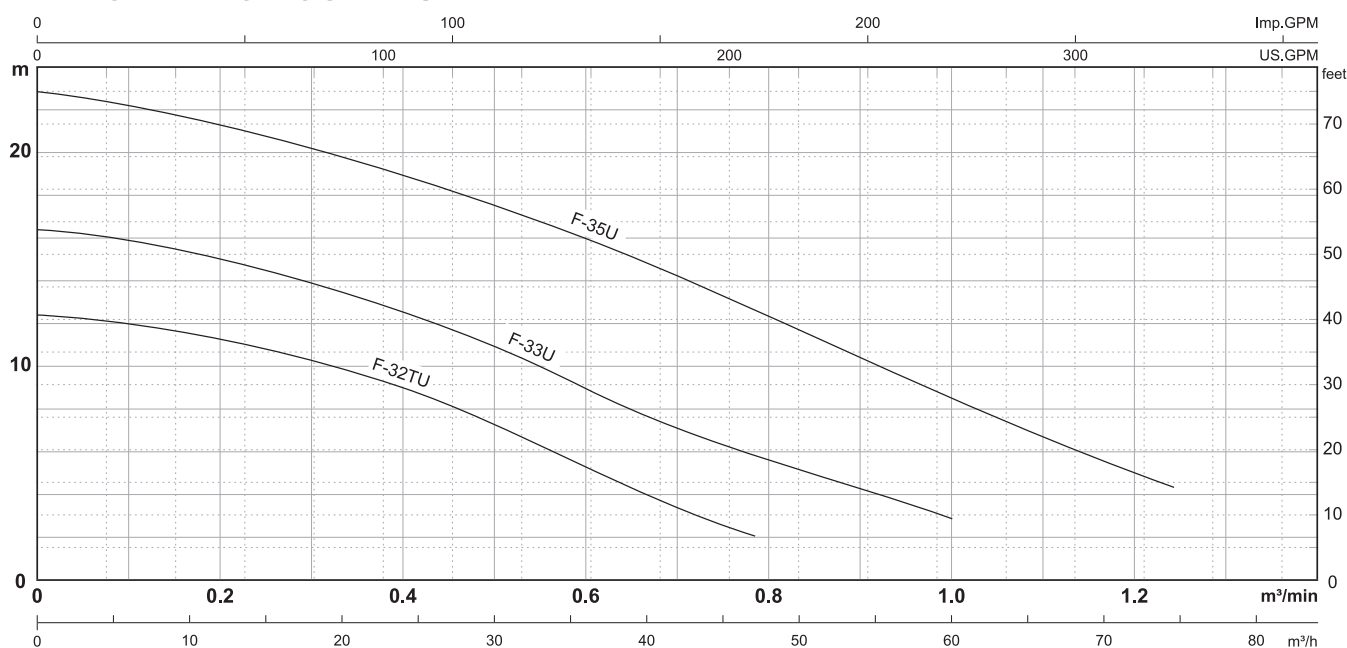
U Type Semi-open Impeller



F-32TU · F-33U · F-35U

Model	Power HP(kW)	Discharge inch(mm)	Standard		MAX		Solid Passage mm(inch)	Weight(W/O Cable)		Phase	Voltage						
			m-m³/min	ft-GPM	m-m³/min	ft-GPM		1Ø-kg(lb)	3Ø-kg(lb)		110V	220V	220V	230V	380V	460V	575V
F-32TU	2(1.5)	3"(80)	8.5-0.4	28-106	12-0.8	40-212	25(1")	38(84)	33(73)	Full load Ampere	—	10.0	6.0	6.0	3.4	3.0	2.4
F-33U	3(2.2)	3"(80)	11-0.5	35-132	16-1.05	52-278	25(1")	40(88)	34(75)		—	14.4	8.6	8.4	4.8	4.2	3.4
F-35U	5(3.7)	3"(80)	16-0.6	52-158	22.5-1.3	74-345	23(7/8")	—	38(84)		—	—	13.8	13.6	7.8	6.8	5.4

PERFORMANCE CURVES



Model	Power HP(kW)	Discharge inch(mm)	H:feet	10'	15'	20'	30'	40'	50'	60'	70'	Q:m³/min	0.1	0.2	0.3	0.4	0.6	0.8	1	1.2
												Q:m³/h	6	12	18	24	36	48	60	72
F-32TU	2(1.5)	3"(80)	Q:US.GPM	191	168	148	102	13	—	—	—	H:m	12.0	11.3	10.3	9.0	5.3	—	—	—
F-33U	3(2.2)	3"(80)		262	232	202	156	111	46	—	—		15.9	15.0	13.9	12.6	9.0	5.6	2.9	—
F-35U	5(3.7)	3"(80)		—	325	300	255	214	170	118	51		22.2	21.3	20.2	18.9	16.0	12.4	8.6	5.1

F SERIES SEWAGE / WASTEWATER SUBMERSIBLE PUMPS

F-32TP · F-33P · F-35P

SPECIFICATIONS

Item		Description
Limits of Use	Liquid Temp.	0~40°C(32~104°F)
	Applications	General wastewater · Sewage and Industrial water
Type	Frequency	60Hz
	Motor	2P(3600rpm) · Dry Motor
	Insulation	Class B (5HP:Class F)
	Protection	IP68
	Protector	Auto-cut
	Bearing	Ball type
	M.seal	Double M.seals
	Impeller	Semi-open
Material	Upper Cover	FC200
	Motor Frame	SUS304
	Shaft End	SUS403
	M.seal	CA/CE & SiC/SiC
	Casing	FC200
	Impeller	FC200
	Cable	VCT or H07RN-F or SJOW/SOW
Optional		—



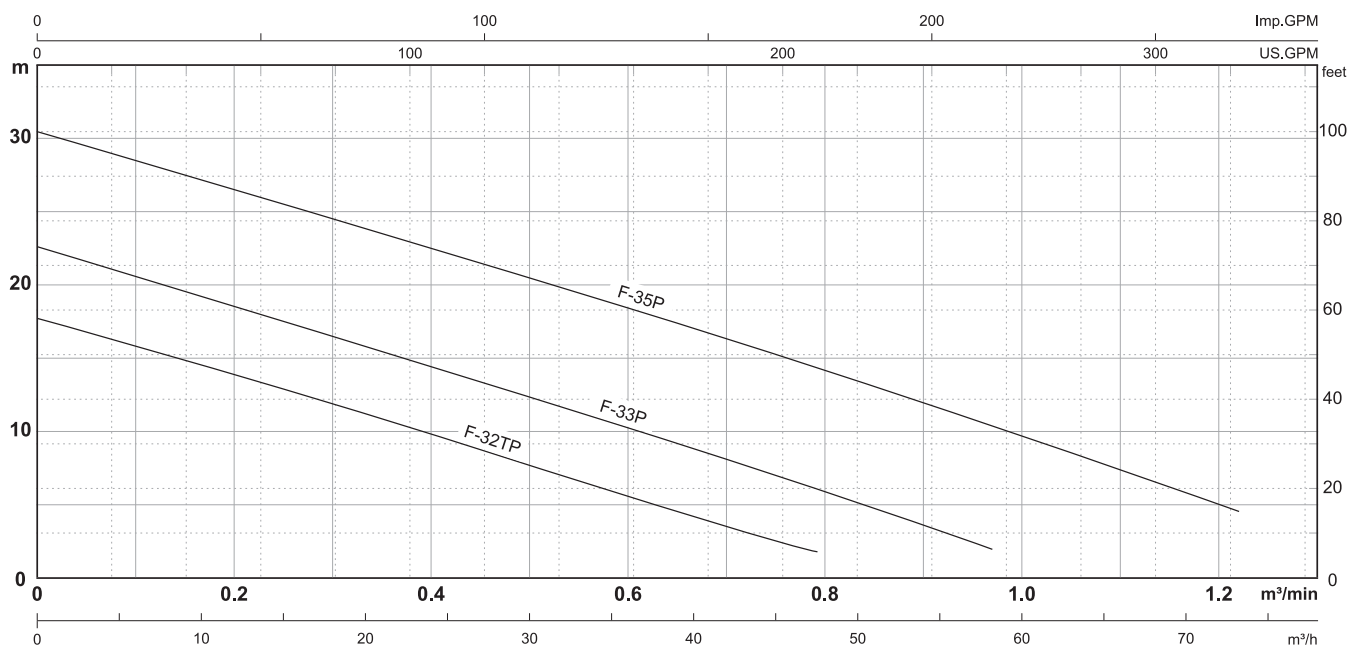
P Type Semi-open Impeller



F-32TP · F-33P · F-35P

Model	Power HP(kW)	Discharge inch(mm)	Standard		MAX		Solid Passage mm(inch)	Weight(W/O Cable)		Phase	Voltage						
			m-m³/min	ft-GPM	m-m³/min	ft-GPM		1Ø-kg(lb)	3Ø-kg(lb)		110V	220V	220V	230V	380V	460V	575V
F-32TP	2(1.5)	3"(80)	8.5-0.45	28-120	17.5-0.8	58-212	30(1 1/8")	38(84)	34(75)	Full load Ampere	—	10.0	6.0	6.0	3.4	3.0	2.4
F-33P	3(2.2)	3"(80)	10-0.6	32-158	22-1.0	72-265	30(1 1/8")	40(88)	34(75)		—	14.4	8.6	8.4	4.8	4.2	3.4
F-35P	5(3.7)	3"(80)	17-0.6	55-158	27.5-1.2	90-317	35(1 3/8")	—	37(82)		—	—	13.8	13.6	7.8	6.8	5.4

PERFORMANCE CURVES



Model	Power HP(kW)	Discharge inch(mm)	H:feet	10'	20'	30'	40'	50'	60'	70'	80'	Q:m³/min	0.1	0.2	0.3	0.4	0.6	0.8	1	1.2
													6	12	18	24	36	48	60	72
F-32TP	2(1.5)	3"(80)	Q:US.GPM	191	152	114	75	34	—	—	—	H:m	15.8	13.9	11.9	9.8	5.6	—	—	—
F-33P	3(2.2)	3"(80)		244	209	172	134	95	56	17	—		20.6	18.6	16.5	14.4	10.3	5.9	—	—
F-35P	5(3.7)	3"(80)		—	305	270	235	198	160	121	81		28.5	26.5	24.6	22.5	18.4	14.2	9.7	5.0

FN SERIES

SEWAGE / EFFLUENT SUBMERSIBLE PUMPS

POWER : 2~5HP (1.5~3.7kW)

MAX.HEAD : 90feet (27.5m)

MAX.FLOW : 355US.GPM (1.35m³/min)



PRODUCT NOMENCLATURE

Example : FN – 3 5 P
Type Discharge inch HP Impeller type

■ Pumping surface and drainage water from garages and sprinkler systems.

FEATURE

■ A precision manufactured motor is achieved by utilizing the highest standard of quality control. All rotors adopt heat treatment methods for drive shaft assembling, and stator winding impregnated with varnish that is heat dried in an industrial oven. The water resistance for pump can reach IP68 grade.

■ HCP's professional assembly line, complimented with a synthesized production test, ensures the highest level of pump quality.

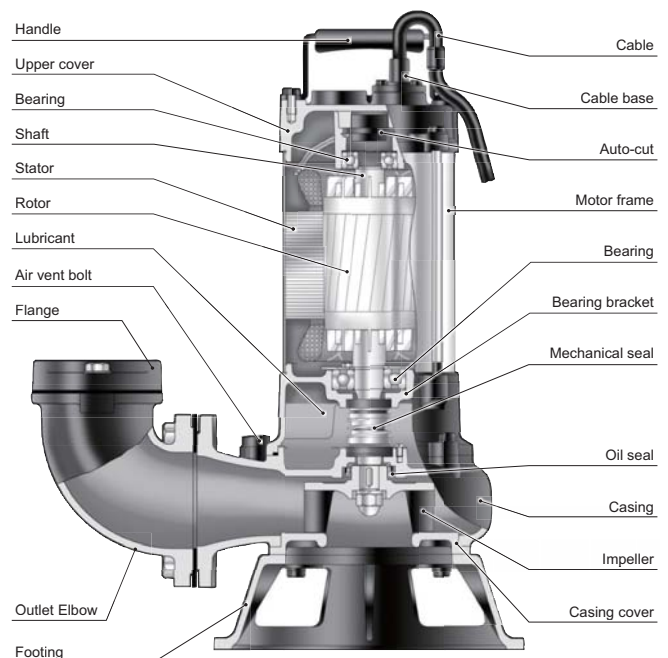
■ Standard accessories include : cable with an epoxy resin sealed water-resistant cable base, AC thermal motor protector, dual mechanical seals and lip seal design.

APPLICATIONS

■ Drainage of sewage from the building basements, hotel industry, and waste water from factories.

■ Drainage of sewage from industrial process factories.

■ Emptying of septic tanks, cesspits and sewage pump stations.



FN SERIES SEWAGE / EFFLUENT SUBMERSIBLE PUMPS

FN-22U · FN-32U · FN-33U · FN-35U

SPECIFICATIONS

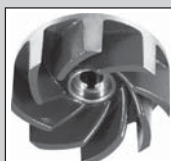
Item		Description
Limits of Use	Liquid Temp.	0~40°C(32~104°F)
	Applications	General wastewater Sewage and Industrial water
Type	Frequency	60Hz
	Motor	2P(3600rpm) · Dry Motor
	Insulation	Class B (5HP:Class F)
	Protection	IP68
	Protector	Auto-cut
	Bearing	Ball type
	M.seal	Double M.seals
	Impeller	Semi-open
Material	Upper Cover	FC200
	Motor Frame	SUS304
	Shaft End	SUS403
	M.seal	CA/CE & SiC/SiC
	Casing	FC200
	Impeller	FC200
	Footing	FC200
	Cable	VCT or H07RN-F or SJOW/SOW
Optional		—



FN-22U



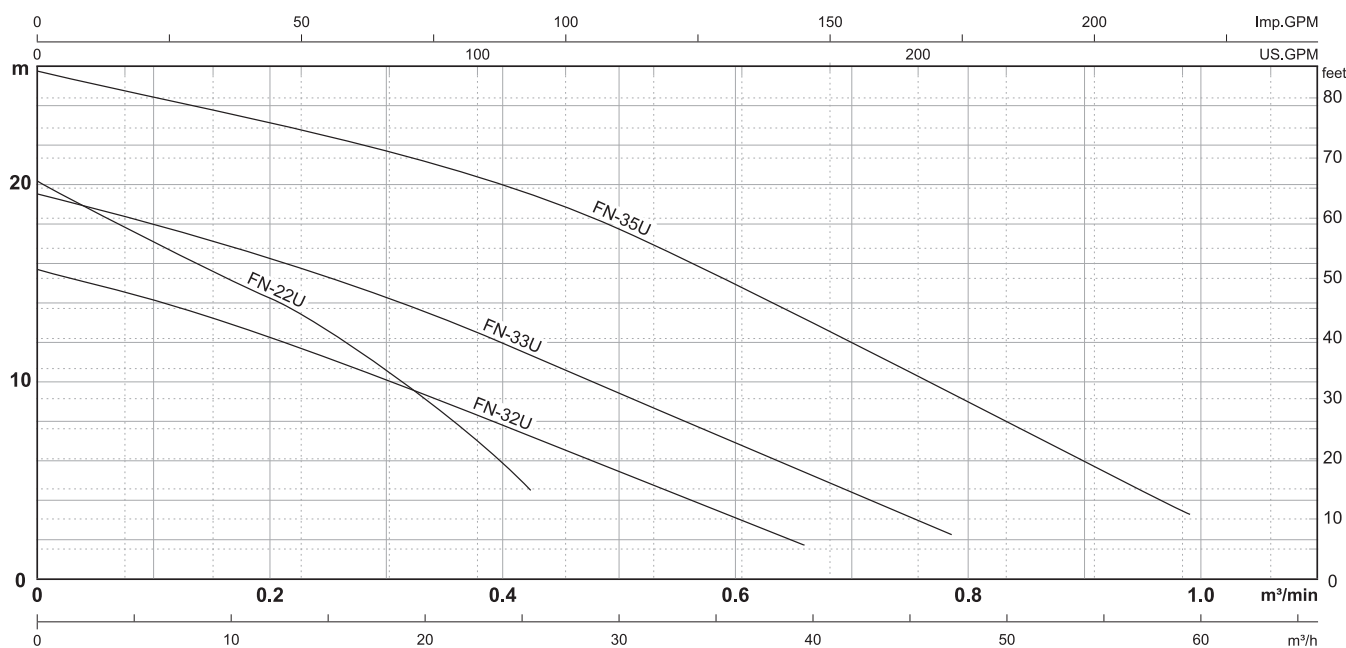
FN-32U · FN-33U · FN-35U



U Type Semi-open Impeller

Model	Power HP(kW)	Discharge inch(mm)	Standard		MAX		Solid Passage mm(inch)	Weight(W/O Cable)		Phase Voltage	1Ø	1Ø	3Ø	3Ø	3Ø	3Ø	3Ø
			m-m³/min	ft-GPM	m-m³/min	ft-GPM		1Ø-kg(lb)	3Ø-kg(lb)		110V	220V	220V	230V	380V	460V	575V
FN-22U	2(1.5)	2"(50)	14-0.2	46-55	20-0.45	66-120	35(1 ³ / ₈ "	30(66)	25(55)	Full load Ampere	—	10.0	6.0	6.0	3.4	3.0	2.4
FN-32U	2(1.5)	3"(80)	8-0.4	26-105	16-0.7	53-185	50(2")	32(71)	28(62)		—	10.0	6.0	6.0	3.4	3.0	2.4
FN-33U	3(2.2)	3"(80)	12-0.4	40-105	19.5-0.8	65-210	50(2")	35(77)	30(66)		—	14.6	8.6	8.4	4.8	4.2	3.4
FN-35U	5(3.7)	3"(80)	17-0.5	56-132	25.5-1.0	85-265	50(2")	—	33(73)		—	—	14.0	13.8	7.9	6.6	5.5

PERFORMANCE CURVES



Model	Power HP(kW)	Discharge inch(mm)	H:feet	10'	20'	30'	40'	50'	60'	70'	80'	Q:m³/min	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.9
				10'	20'	30'	40'	50'	60'	70'	80'	Q:m³/h	6	12	18	24	30	36	42	54
FN-22U	2 (1.5)	2"(50)	Q:US.GPM	—	105	88	69	43	16	—	—	H:m	17.1	14.2	10.6	5.9	—	—	—	—
FN-32U	2 (1.5)	3" (80)		159	125	90	54	8	—	—	—		14.2	12.2	10.1	7.8	5.5	3.1	—	—
FN-33U	3 (2.2)	3" (80)		199	167	135	103	67	22	—	—		18.0	16.2	14.3	12.0	9.4	6.9	4.4	—
FN-35U	5 (3.7)	3" (80)		—	237	210	183	156	126	85	27		24.4	23.2	21.7	20.0	17.8	15.0	12.0	6.0

FN SERIES SEWAGE / EFFLUENT SUBMERSIBLE PUMPS

FN-32P · FN-33P · FN-35P

SPECIFICATIONS

Item		Description
Limits of Use	Liquid Temp.	0~40°C(32~104°F)
	Applications	General wastewater Sewage and Industrial water
Type	Frequency	60Hz
	Motor	2P(3600rpm) · Dry Motor
	Insulation	Class B (5HP:Class F)
	Protection	IP68
	Protector	Auto-cut
	Bearing	Ball type
	M.seal	Double M.seals
	Impeller	Semi-open
Material	Upper Cover	FC200
	Motor Frame	SUS304
	Shaft End	SUS403
	M.seal	CA/CE & SiC/SiC
	Casing	FC200
	Impeller	FC200
	Footing	FCD450
	Cable	VCT or H07RN-F or SJOW/SOW
Optional		—



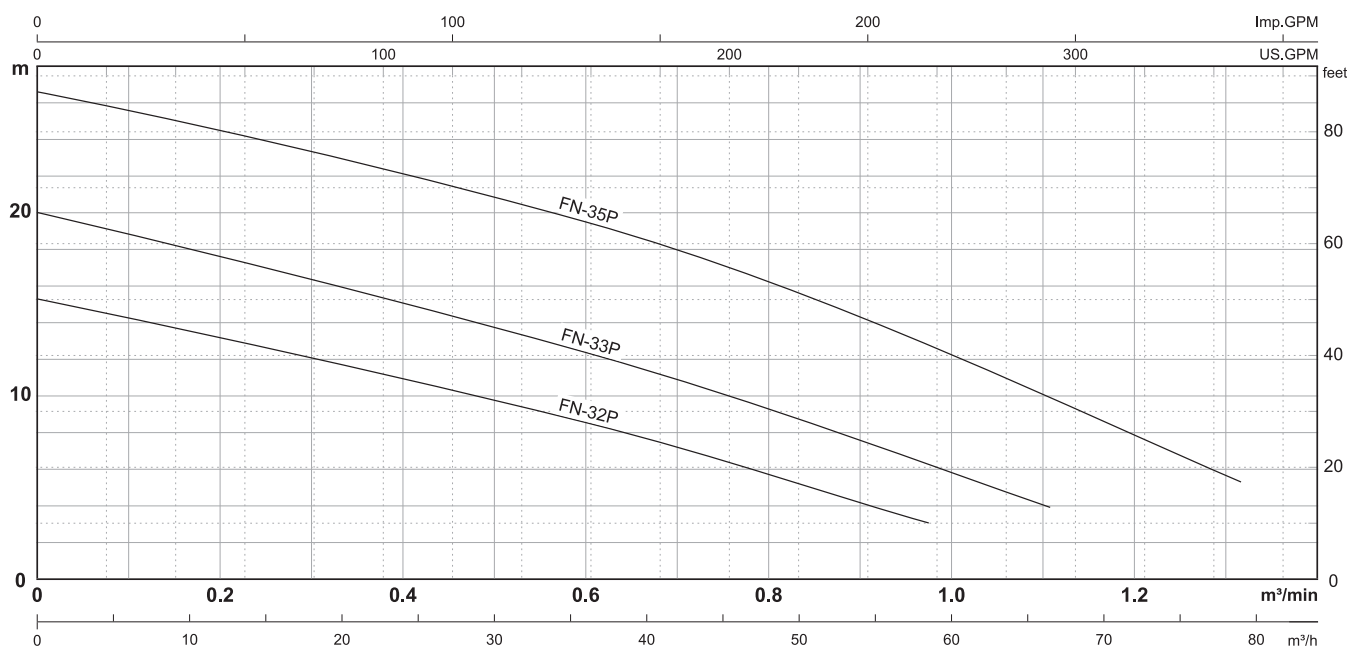
P Type Semi-open Impeller



FN-32P · FN-33P · FN-35P

Model	Power HP(kW)	Discharge inch(mm)	Standard		MAX		Solid Passage mm(inch)	Weight(W/O Cable)		Phase	Voltage						
			m-m³/min	ft-GPM	m-m³/min	ft-GPM		1Ø-kg(lb)	3Ø-kg(lb)		110V	220V	220V	230V	380V	460V	575V
FN-32P	2 (1.5)	3"(80)	8-0.6	26-160	15.5-1.0	51-265	35(1 ³ / ₈ ")	34(75)	30(66)	Full load Ampere	—	10.0	6.0	6.0	3.4	3.0	2.4
FN-33P	3 (2.2)	3"(80)	12-0.6	40-160	20-1.1	68-290	35(1 ³ / ₈ ")	37(82)	32(71)		—	14.6	8.6	8.4	4.8	4.2	3.4
FN-35P	5 (3.7)	3"(80)	18.5-0.6	61-160	27.5-1.35	90-355	35(1 ³ / ₈ ")	—	35(77)		—	—	14	13.8	7.9	6.6	5.5

PERFORMANCE CURVES



Model	Power HP(kW)	Discharge inch(mm)	H:feet	20'	25'	30'	40'	50'	60'	70'	80'	Q:m³/min	0.1	0.2	0.3	0.4	0.6	0.8	1	1.2
				205	177	146	80	1	—	—	—		6	12	18	24	36	48	60	72
FN-32P	2 (1.5)	3" (80)	Q:US.GPM	205	177	146	80	1	—	—	—	H:m	14.2	13.2	12.1	11.0	8.6	5.7	—	—
FN-33P	3 (2.2)	3" (80)		260	237	213	162	102	38	—	—		18.8	17.6	16.4	15.1	12.4	9.3	5.8	—
FN-35P	5 (3.7)	3" (80)		338	320	302	264	225	179	124	54		25.6	24.5	23.4	22.4	19.5	16.2	12.2	7.9