

F/FN **50Hz** SERIES
SUBMERSIBLE SEWAGE
EFFLUENT PUMPS



F-05A

F-04/05/21U
F-05/21ULFN-22U
FN-22ULFN-32/33/35U
FN-32/33/35UL

F-05/21P

FN-32/33/35P

F-31U

FN-32/33U

FN-32/33P

※ Optional : Vertical casing

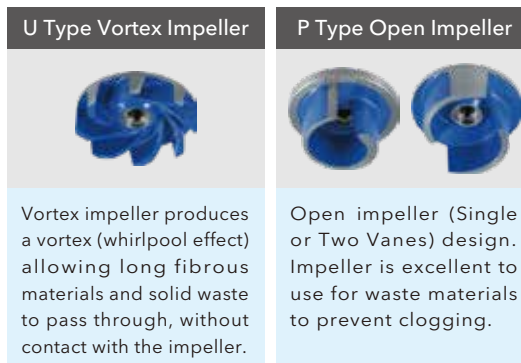
F/FN

FEATURES

- U/P Type impellers are designed to meet the various different operating ranges in wastewater applications.
- F/FN UL Type Non-clog models, capable passing larger solid.
- Optional casing: The FN-32/33U and FN-32/33P models have vertical casing available.
- HCP's professional assembly line, complimented with a synthetic production test to ensure each IP68 motor with highest level of final pump quality.
- Oil Elevation Disk design in the oil chamber to ensure the mechanical seals lubrication and to extend the service life of pump.
- Standard accessories include : cable with an epoxy resin sealed waterresistant cable base, Auto-cut Protector, double mechanical seals, Food grade lubricant and oil 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.
- Pumping surface and drainage water from garages and sprinkler systems.

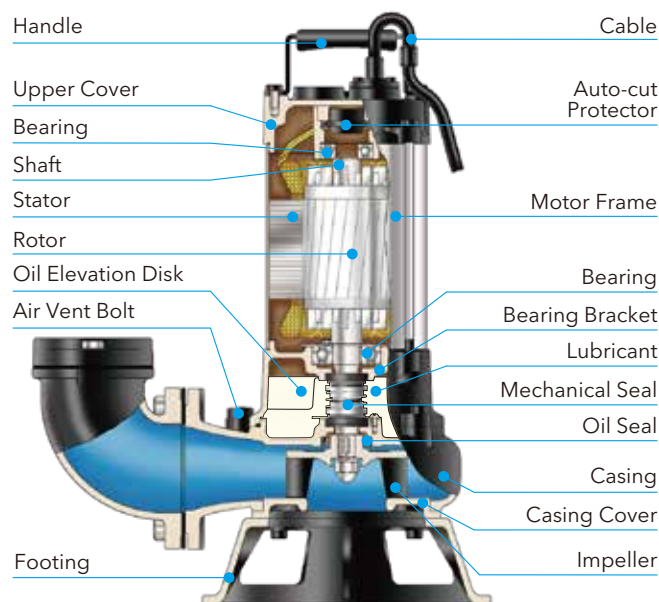


SPECIFICATIONS

Item	Description
Limits Of Use	Liquid Temp. 0~40°C (32~104°F)
	Applications General wastewater • Sewage and Industrial water
Type	Frequency 50Hz
	Motor 2P (3000rpm) • Dry Motor (F- 05A : Oil Motor)
	Insulation Class B (0.5~1HP) • Class F (2~5HP)
	Protection IP68
	Protector Auto-cut (0.5HP 1Ø : Thermal)
	Bearing Ball Type
	M.seal Double M.seals (F-05A : Single M.seals)
Material	Impeller Vortex • Open
	Upper Cover FC200 / GG-20
	Motor Frame SUS304 / X5CrNi18-10
	Shaft SUS410 / X10Cr13 (0.5~1HP) • SUS403 / X5Cr13 (2~5HP)
	M.seal CA/CE & SiC/SiC (F-05A : CA/CE)
	Casing FC200 / GG-20
	Impeller FC200 / GG-20 (F-05A : PA)
Optional	Cable VCT or H07RN-F
	Pumps can be customized to fit specifications Floating Switch (2P : 0.5~3HP)

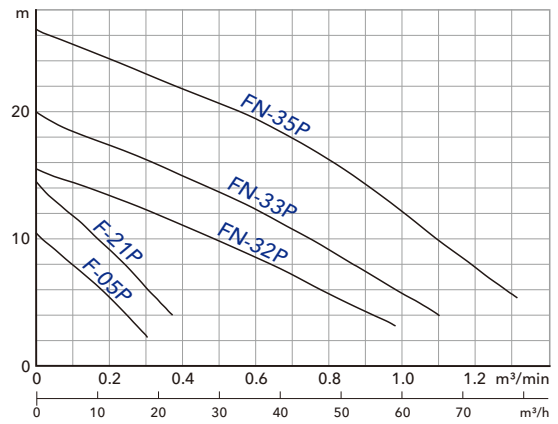
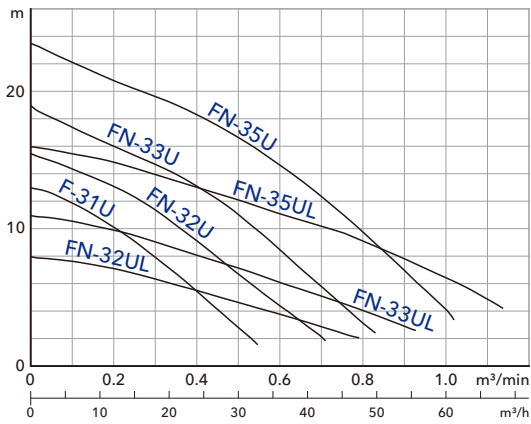
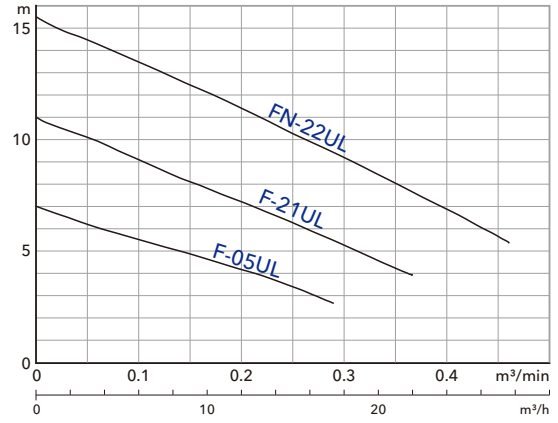
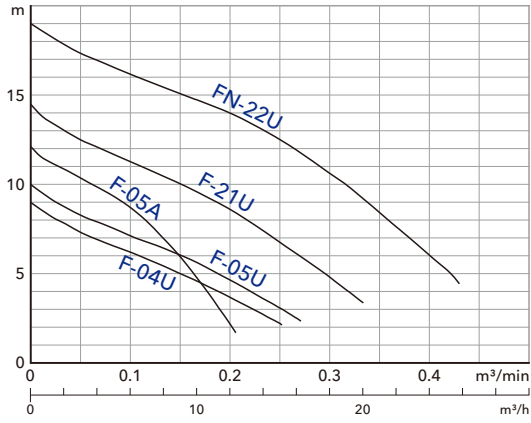
PRODUCT NOMENCLATURE

FN — 3 2 U L
 Type Discharge HP Impeller type Larger solid handling
 inch (U/P)





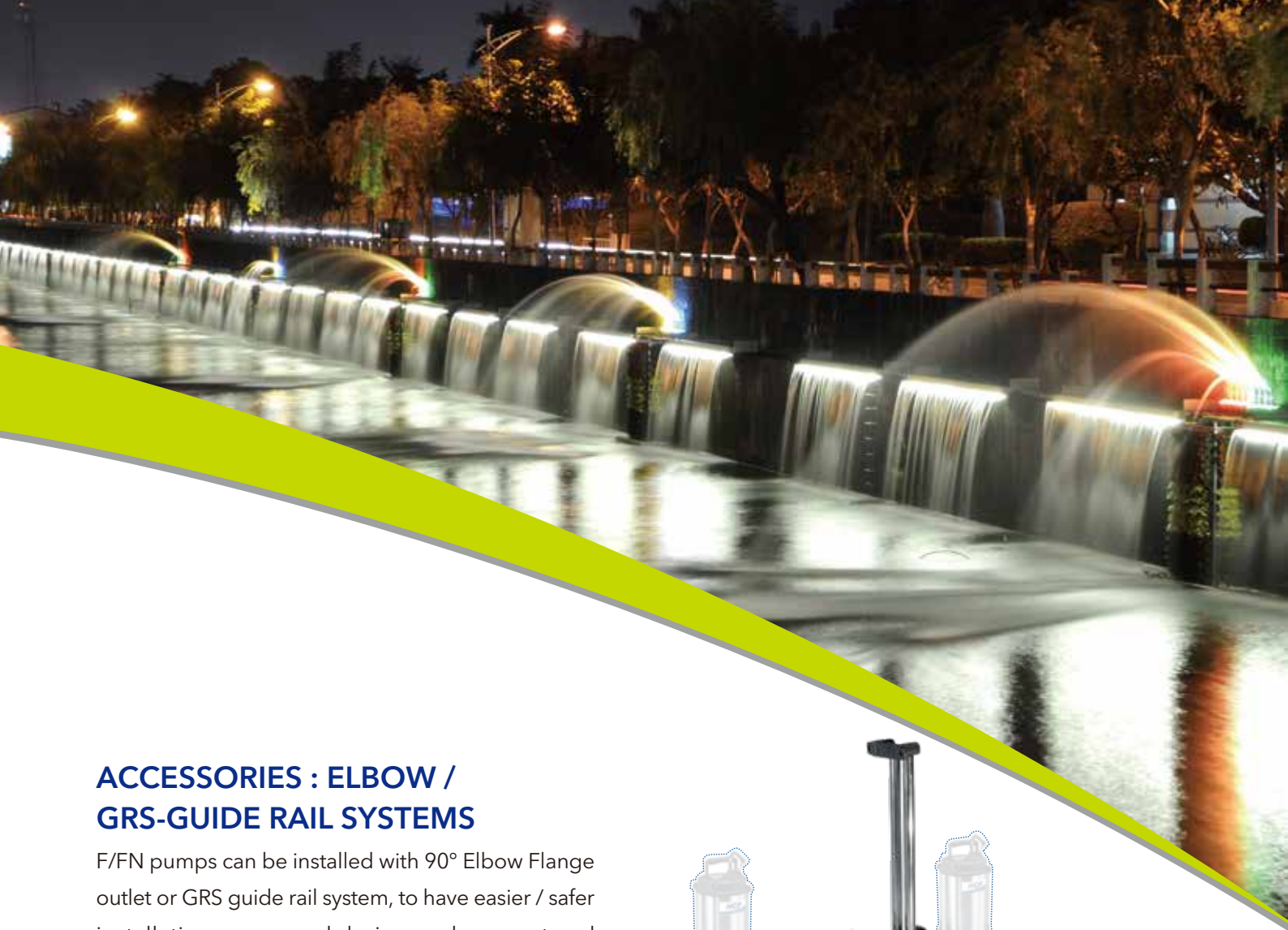
PERFORMANCE CURVES



PERFORMANCE SPECS.

※ Note : Weight Without Cable & Elbow Set.
Casing type:V stands for Vertical and H for Horizontal.

	Model	Output HP(kW)	Discharge Inch(mm)	Phase Ø	Start Method	Head m	Standard		Solid Passage mm	Casing Type	Weight kg	
							m³/min	m³/h			1Ø	3Ø
U Type	F-05A	0.5 (0.4)	2" (50)	1	Capacitor	8	0.12	7.2	10	V	12	-
	F-04U	0.5 (0.4)	2" (50)	1	Capacitor	5	0.15	9	35	V	15	-
	F-05U	0.5 (0.4)	2" (50)	1 3	Capacitor DOL	6	0.15	9	35	V	16	15
	F-21U	1 (0.75)	2" (50)	1 3	Capacitor DOL	8	0.2	12	35	V	17	16
	F-31U	1 (0.75)	3" (80)	1 3	Capacitor DOL	7	0.3	18	30	V	18	17
	F-05UL	0.5 (0.4)	2" (50)	1 3	Capacitor DOL	4	0.2	12	50	V	17	16
	F-21UL	1 (0.75)	2" (50)	1 3	Capacitor DOL	6	0.25	15	50	V	18	17
	FN-22U	2 (1.5)	2" (50)	1 3	Capacitor DOL	14	0.2	12	35	V	30	25
	FN-32U	2 (1.5)	3" (80)	1 3	Capacitor DOL	8.5	0.4	24	50	H/V	32	28
	FN-33U	3 (2.2)	3" (80)	1 3	Capacitor DOL	12.5	0.4	24	50	H/V	35	30
	FN-35U	5 (3.7)	3" (80)	3	DOL	16.5	0.5	30	50	H	-	33
	FN-22UL	2 (1.5)	2" (50)	1 3	Capacitor DOL	10	0.25	15	50	V	31	26
	FN-32UL	2 (1.5)	3" (80)	1 3	Capacitor DOL	4.5	0.5	30	76	H	35	30
	FN-33UL	3 (2.2)	3" (80)	1 3	Capacitor DOL	7	0.5	30	76	H	37	32
	FN-35UL	5 (3.7)	3" (80)	3	DOL	11	0.6	36	76	H	-	35
P Type	F-05P	0.5 (0.4)	2" (50)	1 3	Capacitor DOL	5.5	0.2	12	22	V	16	15
	F-21P	1 (0.75)	2" (50)	1 3	Capacitor DOL	9	0.2	12	26	V	20	19
	FN-32P	2 (1.5)	3" (80)	1 3	Capacitor DOL	8.5	0.6	36	35	H/V	34	30
	FN-33P	3 (2.2)	3" (80)	1 3	Capacitor DOL	12	0.6	36	35	H/V	37	32
	FN-35P	5 (3.7)	3" (80)	3	DOL	19	0.6	36	35	H	-	35



ACCESSORIES : ELBOW / GRS-GUIDE RAIL SYSTEMS

F/FN pumps can be installed with 90° Elbow Flange outlet or GRS guide rail system, to have easier / safer installation or removal during replacement and maintenance. The GRS does not support the vertical casing models.



ELBOW



GRS

PRODUCT FEATURES



Epoxy Cable Base

An epoxy resin seal cable base prevents moisture from entering the motor through the core wires.



Double Mechanical Seals

Superior abrasion resistant mechanical seal is manufactured with silicon carbide to ensure the best seal effect.



Auto-cut Protector

Automatic On / Off motor protector to prevent motor burn out due to high temperature and excess amperage draw.



High Efficiency Dry Motors

All stator coils are treated with insulating varnish procedures to achieve the best insulation, efficiency and durability.



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