

Submersible Sump Pump Series

For drainage of wastewater, sewage, facilities and construction equipment.

High-efficiency non-clog impeller

Reinforced glass fiber resin

Stainless steel

Vortex with cutter

Ver.3.1



VUS



ZU3



WUP4



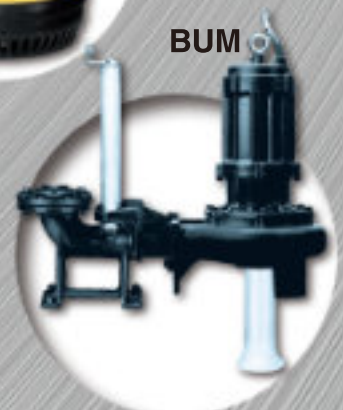
BUW



DU4



BUM



Kawamoto's Submersible Sump Pump Series

Specification table by model (liquid temperature: 0 to 40°C, pH 5 to 9)

For Wastewater, 2 poles

WUP4 type

Vortex



Adjustable float position

New!



- Reinforced glass fiber resin
- Motor
- Stainless steel frame
- 2-pole drysealed motor
- Materials
- Casing: Plastic
- Impeller: Plastic
- Shaft: SUS304
- Bore: 32, 40, 50mm
- Output: 0.15 - 0.75kW

-P3-

WUZ2/4 type

Vortex



Adjustable float position

New!



- Titanium
- Motor
- Titanium frame
- 2-pole drysealed motor
- Materials
- Casing: Plastic
- Impeller: Plastic
- Shaft: Titanium
- Bore: 32 - 80mm
- Output: 0.15 - 3.7kW

-P3-

YUK2 type

Semi-open



- Motor
- 2-pole drysealed motor
- Materials
- Casing: Cast iron
- Impeller: SCS13
- Shaft: SUS403
- Bore: 40, 50mm
- Output: 0.25 - 0.75kW

-P4-

For Wastewater, 2 poles

SU4 type

Closed



- Motor
- 2-pole drysealed motor
- Materials
- Casing: Cast iron
- Impeller: Bronze
- Shaft: SUS403
- Bore: 50mm
- Output: 0.75 - 7.5kW

-P4-

WUO(4) type

Vortex



Adjustable float position

New!



- Reinforced glass fiber resin
- Motor
- Stainless steel frame
- 2-pole drysealed motor
- Materials
- Casing: Plastic
- Impeller: Plastic
- Shaft: SUS304
- Bore: 40 - 80mm
- Output: 0.15 - 3.7kW

-P5-

ZU3/4 ZUJ/4 type

Semi-open
Non-clog



- Motor
- 2-pole drysealed motor
- Materials
- Casing: Cast iron
- Impeller: Cast iron
- Shaft: SUS403
- Bore: 50 - 80mm
- Output: 0.4 - 7.5kW

-P5-

For Sewage, 4 poles

BUW type

High-efficiency
non-clog



High efficiency

Bore to pass foreign
objects 100% dia.



- Motor
- 4-pole drysealed motor
- Materials
- Casing: Cast iron
- Impeller: SCS13
- Shaft: SUS420J2
- Bore: 65, 80mm
- Output: 0.75 - 7.5kW

-P6-

BU4 type

Non-clog



- Motor
- 4-pole drysealed motor
- Materials
- Casing: Cast iron
- Impeller: Cast iron
- Shaft: SUS420J2
- Bore: 50 - 150mm
- Output: 0.75 - 22kW

-P6-

High durability

High efficiency
e-star Product

Rust resistant



For Sewage, 4 poles

AU4 type

Vortex with cutter



- Motor
4-pole drysealed motor
- Materials
Casing: Cast iron
Impeller: Ductile iron
Shaft: SUS420J2
Cutter: Alloy tool steel (Ceramic coated)
- Bore: 50 - 100mm
- Output: 0.75 - 7.5kW

-P7-

VU4 type

Vortex



- Motor
4-pole drysealed motor
- Materials
Casing: Cast iron
Impeller: Cast iron
Shaft: SUS420J2
- Bore: 50 - 100mm
- Output: 0.75 - 15kW

-P7-

VUS type

Vortex



- Motor
4-pole drysealed motor
- Materials
Casing: SCS13
Impeller: SCS13
Shaft: SUS304
- Bore: 50 - 100mm
- Output: 0.4 - 7.5kW

-P8-

For Manholes, 4 poles

BUM type

High efficiency



High efficiency non-clog type



- Motor
4-pole drysealed motor
- Materials
Casing: Cast iron
Impeller: SCS13
Shaft: SUS420J2
- Bore: 65, 80mm
- Output: 0.75 - 7.5kW

-P8-

VUM type

Vortex



Stainless steel



- Motor
4-pole drysealed motor
- Materials
Casing: SCS13
Impeller: SCS13
Shaft: SUS304
Motor cover: SCS13
Bell mouth: SCS13
- Bore: 50 - 100mm
- Output: 0.4 - 7.5kW

-P9-

For Construction works / For Residual water drainage

DUG2/DU4/ DUM2 type

Vortex



DU4 type

- Motor
2-pole drysealed motor
- Materials
Casing: Cast iron (DUG2)
Synthetic rubber (DU4)
Synthetic rubber + SUS304 (DUM2)
Impeller: Plastic (DUG2)
Urethane rubber (DU4, DUM2)
- Shaft: SUS403
- Bore: 40, 50mm
- Output: 0.25 - 2.2kW

-P11-

LU2 type

Semi-open



-P11-

- Motor
2-pole drysealed motor
- Materials
Casing: Synthetic rubber
Impeller: Plastic
Shaft: SUS403
- Bore: 50mm
- Output: 0.4kW

Reinforced glass fiber resin

WUP4 type

For Wastewater, 2 poles

Selection

50Hz

Application For drainage of wastewater, septic tank sump, dirty sump and spring water

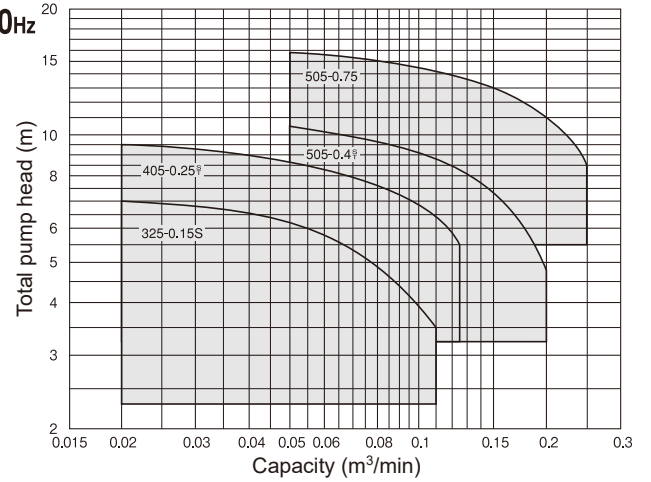
- Features**
- g Light and easy to handle, due to resinified pump parts and motor with stainless steel frame.
 - k Corrosion proof and long-life.
 - l Equipped with a small special motor with built-in auto-cut of a large starting torque to ensure safety.
 - m Vortex type and excellent performance to pass foreign objects.
 - n Strainer is quick detachable type for easy cleaning and maintenance.
 - p Can be paired with plastic pedestal support (special accessory).
 - r Japan Public Buildings Association compliant. (50mm-bore products)
 - s Starting/stopping water levels are adjustable in L and LN types.
 - u Improved strainer strength. (compared to our conventional models)

Types

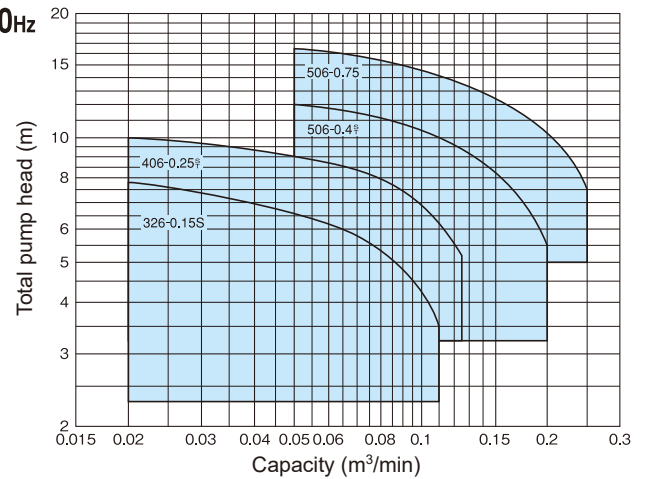
Operation method	Model
Non-automatic	WUP4 type
Automatic	WUP4-L type
Auto alternate	WUP4-LN type

Ability to pass foreign objects

Bore (mm)	Diameter of foreign objects (sphere) (mm)
32	14
40	14
50	20



60Hz



Titanium

WUZ2/4 type

For Seawater and Wastewater, 2 poles

Selection

50Hz

Application For seawater intake, circulation, fish and shellfish breeding farms, processing plant, various wastewater

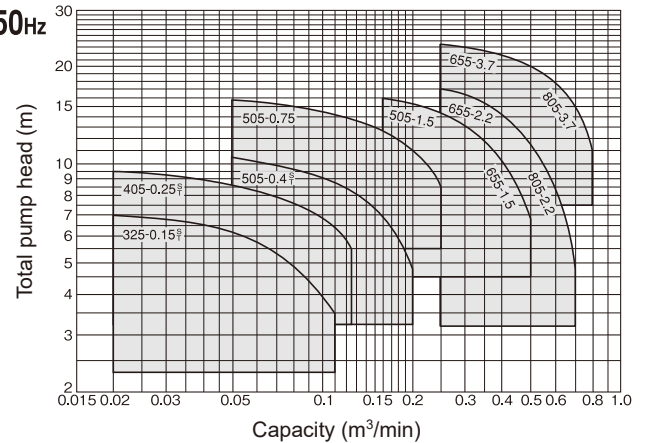
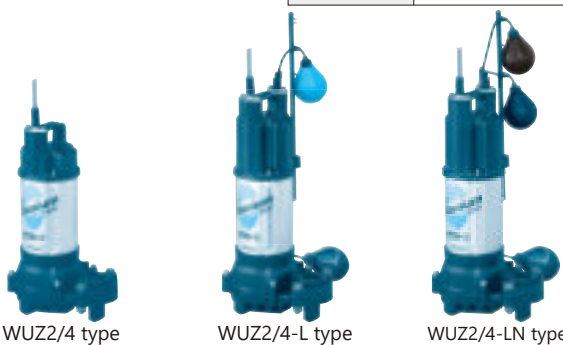
- Features**
- g Uses titanium for the metal part which contacts water and plastic in the pump to achieve corrosion proof, light weight and easy-to-handle features.
 - k Glass fiber reinforced plastic is used in plastic parts which require strength, such as the impeller and casing.
 - l Vortex type and excellent in the ability to pass foreign objects.
 - m Equipped with a motor with built-in auto-cut having a large torque to prevent burn damage.
 - n Strainers with output of 0.75kW or less are quick detachable type for easy maintenance.
 - p Japan Public Buildings Association compliant. (50mm-bore products)
 - r Starting/stopping water levels are adjustable in L and LN types.
 - u Improved strainer strength. (compared to our conventional models)

Types

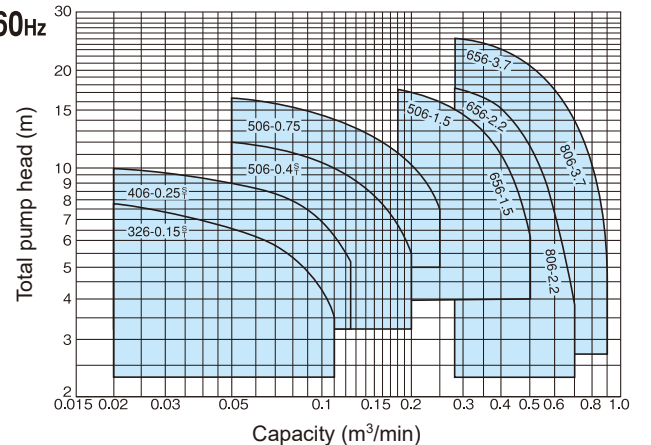
Operation method	Model
Non-automatic	WUZ2/4 type
Automatic	WUZ2/4-L type
Auto alternate	WUZ2/4-LN type

Ability to pass foreign objects

Output	Diameter of foreign objects (sphere) (mm)
0.25kW or less	14
0.4, 0.75kW	20
1.5kW	35
2.2kW or above	40



60Hz



YUK2 type

For Wastewater, 2 poles

Selection

50Hz

Application For drainage of wastewater, septic tank sump, dirty sump and spring water

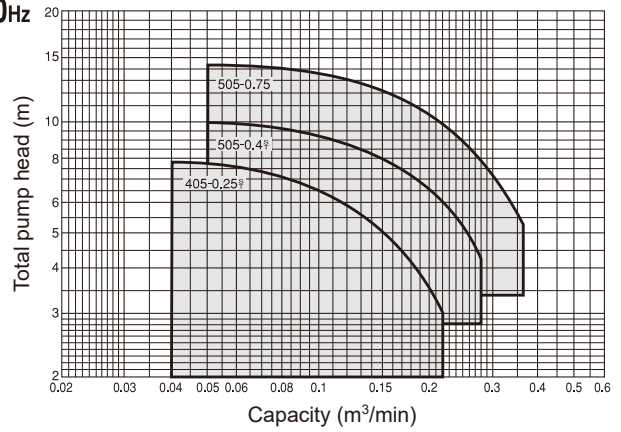
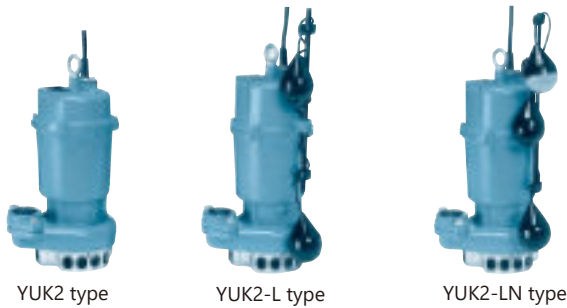
- Features**
- g Semi-open stainless steel impeller prevents foreign objects from clogging.
 - k Significantly improved ability to pass foreign objects.
 - l Safety device (auto-cut) activates at overload and during restraint operation and prevents motor burnout.
 - m Can be combined with a plastic pedestal support (special accessory).

Types

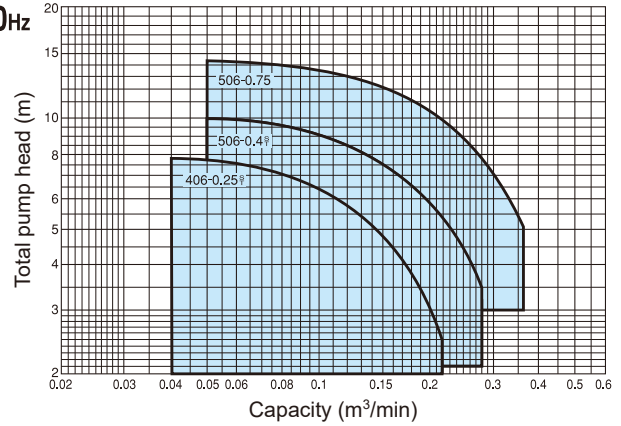
Operation method	Model
Non-automatic	YUK2 type
Automatic	YUK2-L type
Auto alternate	YUK2-LN type

Ability to pass foreign objects

Bore (mm)	Diameter of foreign objects (sphere) (mm)
40	20
50	20



60Hz



SU4 type

For Wastewater, 2 poles

Selection

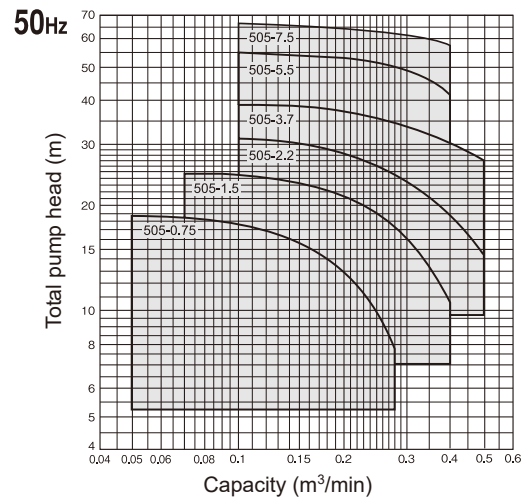
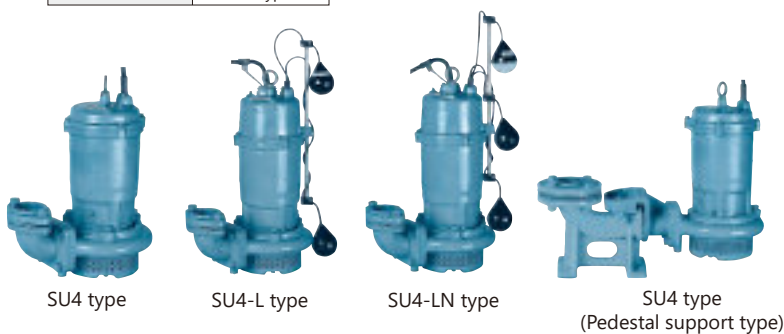
50Hz

Application For drainage of wastewater, septic tank sump, rain water and spring water sump

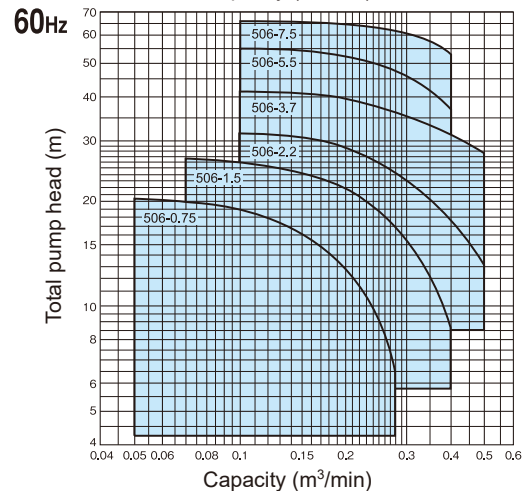
- Features**
- g Closed impeller made of Bronze provides excellent pumping performance without startup failures due to rusted impellers.
 - k Equipped with a motor with built-in auto-cut to prevent motor burnout.
 - l Attached with a special strainer to prevent suction of foreign objects.
 - m The flange is attached with a pedestal support to avoid excess load to be applied to the pump.
 - n Two types available: floor mount and pedestal support type for easy maintenance and inspection.
 - p Some models with output of 3.7kW or less are available with a float switch (automatic, auto alternate built-in).
 - q 5.5kW and 7.5kW model adopt Stainless cast steel (304)

Types

Operation method	Model
Non-automatic	SU4 type
Automatic	SU4-L type
Auto alternate	SU4-LN type



60Hz



Reinforced glass fiber resin WUO(4) type

For Sewage, 2 poles

Selection

50Hz

Application For drainage of sewage and wastewater, and for drainage of septic tank sump

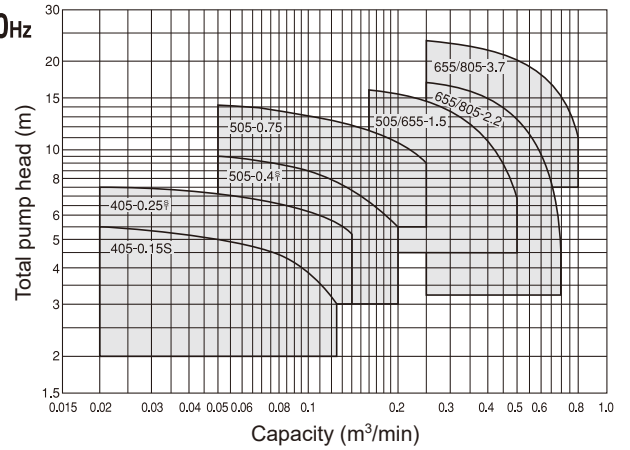
- Features**
- g Light weight and easy-to-handle submersible sewage pump.
 - k Stainless steel made frame motor and plastic parts increase operating life.
 - j Uses reinforced glass fiber resin for the impeller and casing, and equipped with a motor with built-in auto-cut having a large starting torque for stable operation.
 - m Vortex type and excellent performance to pass foreign objects.
 - n Can be combined with a plastic pedestal support (special accessory).
 - p Starting/stopping water levels are adjustable in L and LN types.

Types

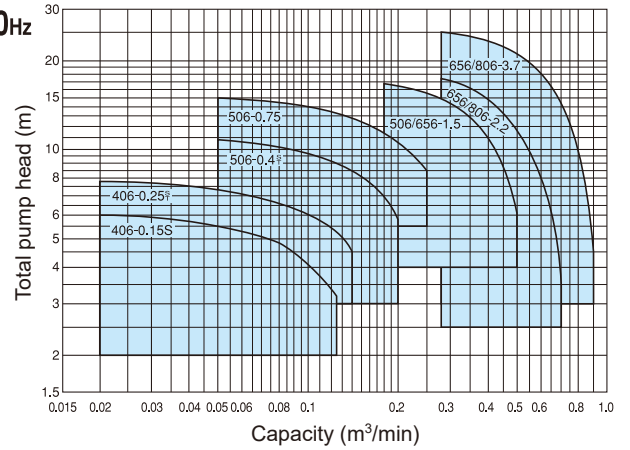
Operation method	Model
Non-automatic	WUO(4) type
Automatic	WUO(4)-L type
Auto alternate	WUO(4)-LN type

Ability to pass foreign objects

Bore (mm)	Diameter of foreign objects (sphere) (mm)
40	35
50	35
65	35 (40 for 2.2kW or above)
80	40



60Hz



ZU3/4 ZUJ/4 type

For Sewage, 2 poles

Selection

50Hz

Application Sewage and wastewater with solids

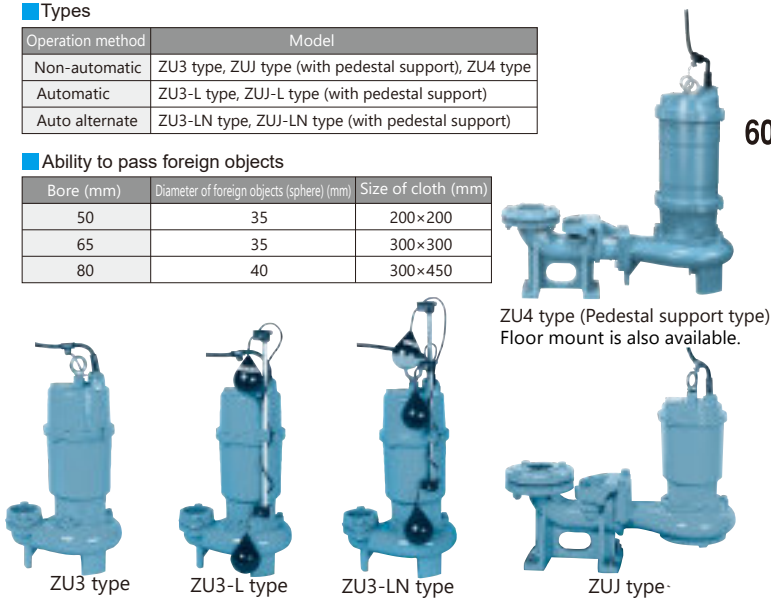
- Features**
- g The S-shaped impellers provides excellent ability to pass foreign objects.
 - k The pump is free from forming air pocket behind impeller.
 - j Equipped with a motor with built-in auto-cut to prevent motor burnout.
 - m ZUJ type is equipped with a pedestal support for easy maintenance and inspection.
 - n Some models with output of 3.7kW or less are available with a float switch (automatic, auto alternate built-in).

Types

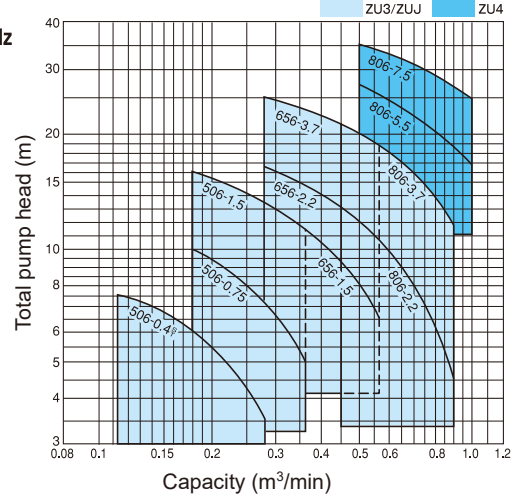
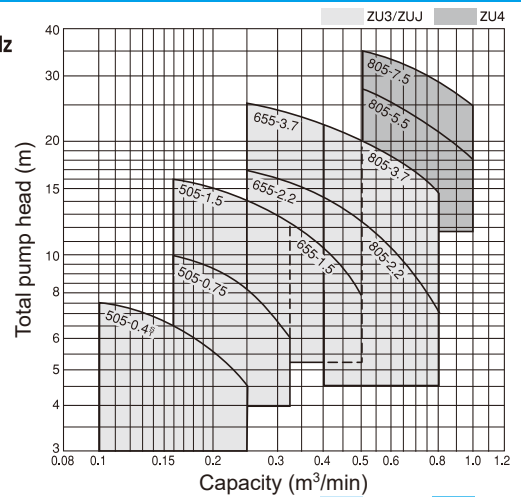
Operation method	Model
Non-automatic	ZU3 type, ZUJ type (with pedestal support), ZU4 type
Automatic	ZU3-L type, ZUJ-L type (with pedestal support)
Auto alternate	ZU3-LN type, ZUJ-LN type (with pedestal support)

Ability to pass foreign objects

Bore (mm)	Diameter of foreign objects (sphere) (mm)	Size of cloth (mm)
50	35	200×200
65	35	300×300
80	40	300×450



60Hz



High-efficiency non-clog impeller

BUW type

For Sewage, 4 poles

Selection

Application For drainage of sewage and wastewater, discharge of sump from buildings, factories, hospitals, apartments, etc.

- Features**
- g. The ability to pass foreign objects is 100% of the bore size (can discharge spherical solids with a diameter which equals to the bore size).
 - k. The closed-type, high-efficiency, non-clog impeller (patent pending) and our original casing structure provide high pumping performance with high efficiency.
 - l. Uses highly corrosion proof stainless steel for the impeller.
 - m. Equipped with a motor with built-in auto-cut to prevent motor burnout.
 - n. Two types available: floor mount and pedestal support type for easy maintenance and inspection.

Types

Non-automatic

Ability to pass foreign object

Bore (mm)	Diameter of foreign objects (sphere) (mm)
65	65
80	80



High efficiency & 100% size of the bore object passage



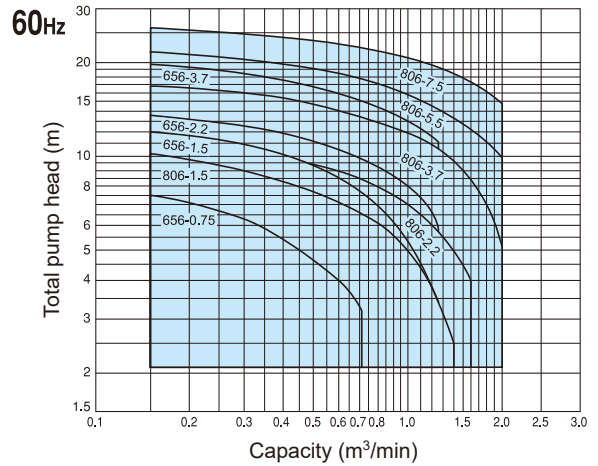
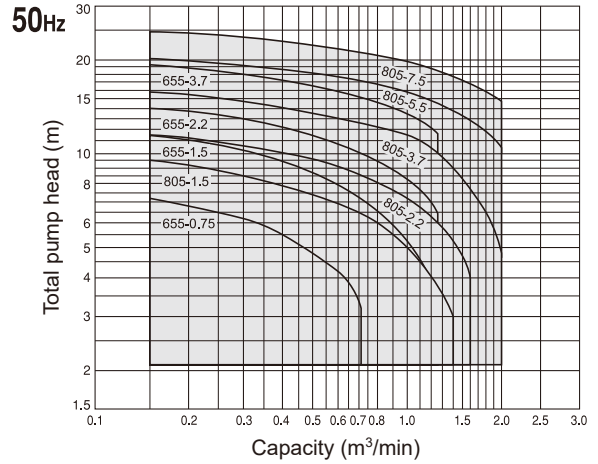
Floor mount



Pedestal support type



Impeller



BU4 type

For Sewage, 4 poles

Selection

Application For discharge of sewage and wastewater

- Features**
- g. The closed-type non-clog impeller and our original casing structure (patented) provide high pumping performance.
 - k. Equipped with a motor with built-in auto-cut (7.5kW or less) to prevent motor burnout. Motor with output of 11kW or above can detect abnormal temperature rise of the motor coil as an external signal.
 - l. Two types available: floor mount and pedestal support type for easy maintenance and inspection.
 - m. Some models with output of 3.7kW or less are available with a float switch (automatic, auto alternate built-in).
 - n. High pressure model BU4-H type is also available.

Types

Operation method	Model
Non-automatic	BU4 type
Automatic	BU4-L type
Auto alternate	BU4-LN type

Ability to pass foreign object

Bore (mm)	Diameter of foreign objects (sphere) (mm)	Size of cloth (mm)
50	35	300×300
65	35	300×450
80	53	1.5kW : 300×450 2.2~3.7kW : 300×900 5.5~22kW : 200×300
100	53	↓↓↓↓↓↓↓↓
150	53	↓↓↓↓↓↓↓↓

※ With restart.



BU4 type



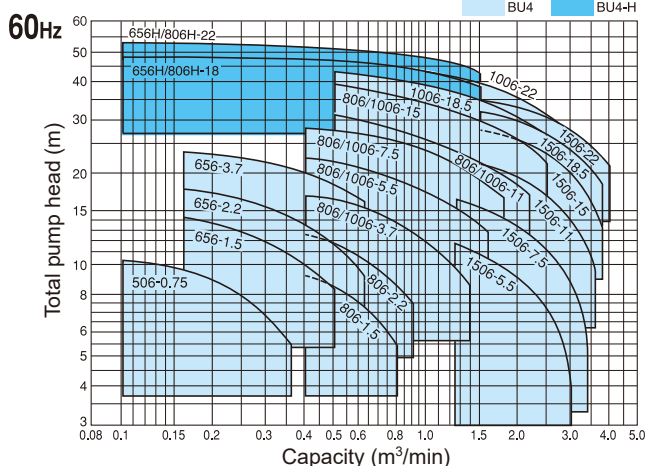
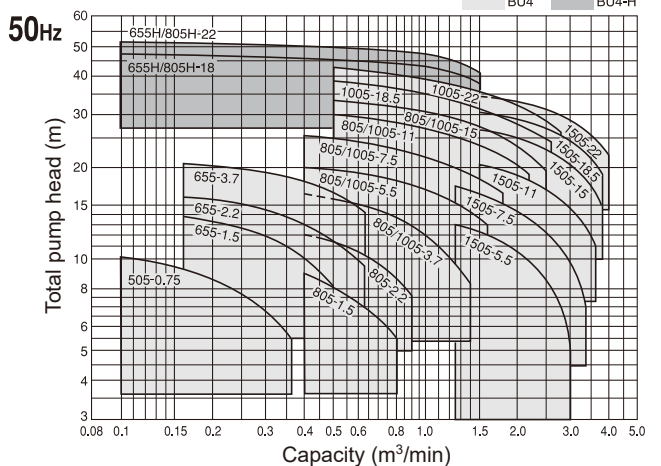
BU4-L type



BU4-LN type



BU4 type (Pedestal support type)



Vortex with cutter

AU4 type

For Sewage, 4 poles

Selection

50Hz

Application For drainage from sewage tanks, kitchens, and drainage of other sewage and wastewater

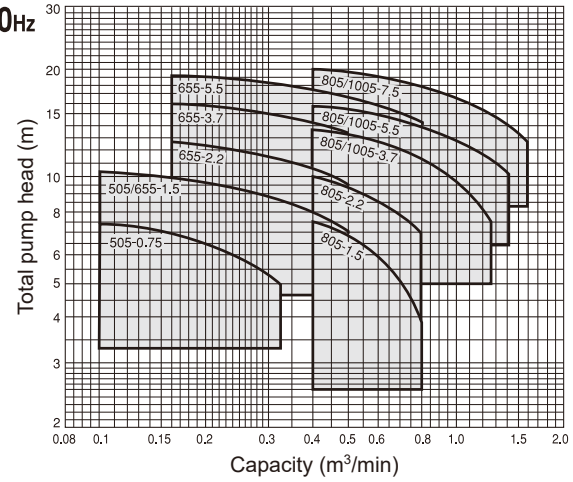
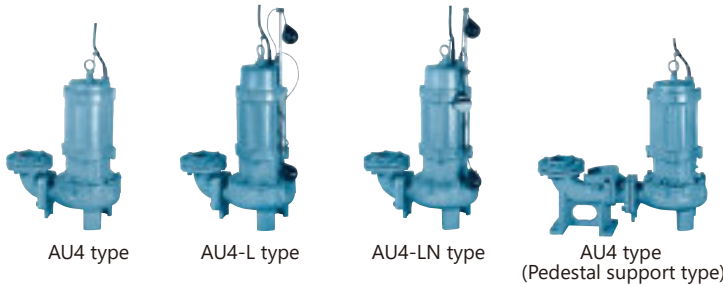
- Features**
- g. The ceramic-coated cutter piece help maintain long service life with excellent performance.
 - κ Original suction configuration (patented) and casing structure.
 - λ Equipped with a motor with built-in auto-cut to prevent motor burnout.
 - μ Two types available: floor mount and pedestal support type for easy maintenance and inspection.
 - ν Some models with output of 3.7kW or less are available with a float switch (automatic, auto alternate built-in).

Types

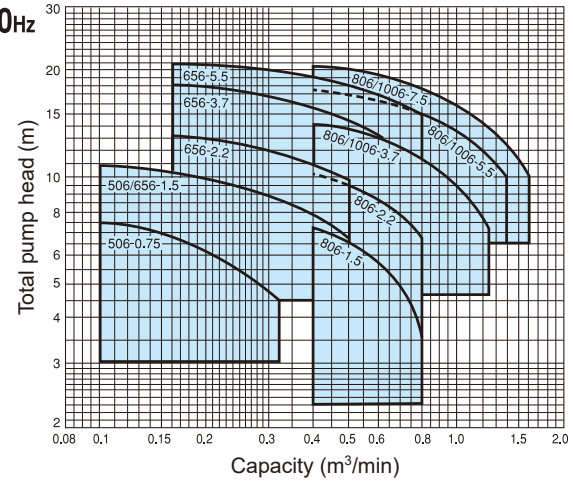
Operation method	Model
Non-automatic	AU4 type
Automatic	AU4-L type
Auto alternate	AU4-LN type

Ability to pass foreign objects

Bore (mm)	Solid object (sphere diameter (mm))	Cuttable cloth
50	17	0.75kW: Panty hose 1.5kW: Towel (300x450mm) 2.2kW and above: Towel (300x900mm) (In addition to the above, cotton gloves, packaging tapes, plastic bags, etc. can also be cut.)
65	17	
80	24 (2.2kW or less)	
	26 (3.7kW or above)	
100	26	



60Hz



Vortex type

VU4 type

For Sewage, 4 poles

Selection

50Hz

Application For discharge of sewage and wastewater

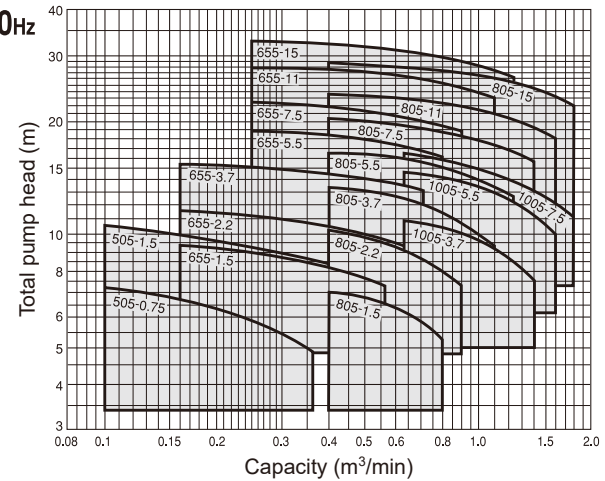
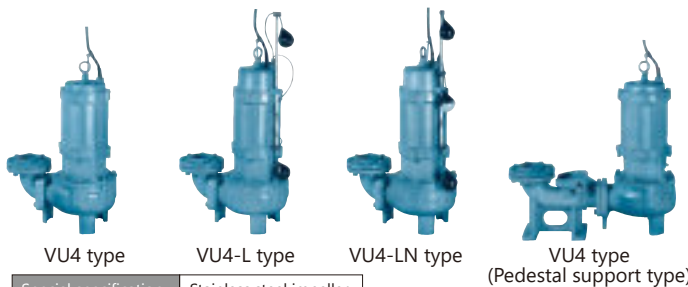
- Features**
- g. Excellent ability to pass foreign objects without entangling. (Can discharge spherical solids with a diameter which equals to the bore size.)
 - κ Our original casing structure (patented) provides excellent pumping performance.
 - λ Equipped with a motor with built-in auto-cut (7.5kW or less) to prevent motor burnout.
 - μ Motor with output of 11kW or above can detect abnormal temperature rise of the motor coil as an external signal.
 - ν Two types available: floor mount and pedestal support type for easy maintenance and inspection. Some models with output of 3.7kW or less are available with a float switch (automatic, auto alternate built-in).

Types

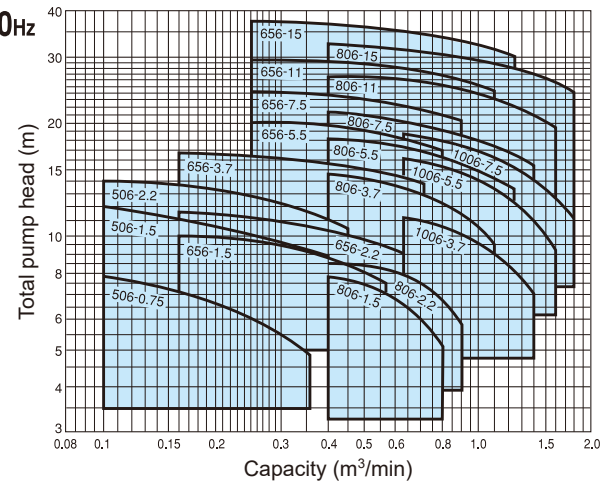
Operation method	Model
Non-automatic	VU4 type
Automatic	VU4-L type
Auto alternate	VU4-LN type

Ability to pass foreign objects

Bore (mm)	Solid Sphere diameter (mm)	Cloth		
		Packaging tape	Cotton gloves	Panty hose
50	50	400mm or smaller (OK with restart for 0.75kW and 50Hz, 1.5kW)	OK with restart for 1.5kW or less	OK with restart for 2.2kW or less and 60Hz, 3.7kW
65	65			
80	80			
100	100			



60Hz



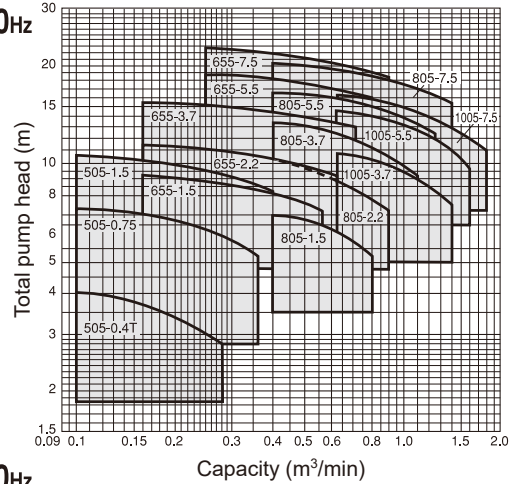
Stainless Steel, Vortex type

VUS type

For Sewage, 4 poles

Selection

50Hz



Application For discharge of sewage and wastewater from buildings, factories, hospitals, apartments, etc.

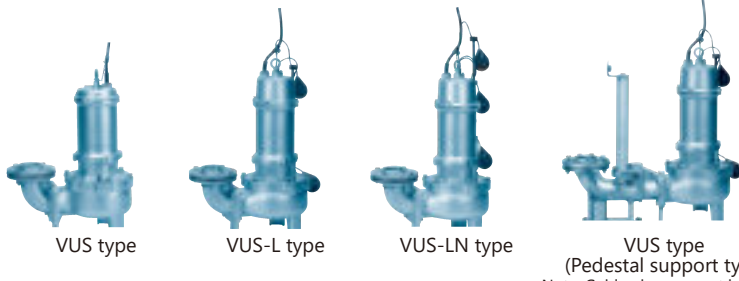
- Features**
- g All stainless steel structure (pump, motor, pedestal support) provides corrosion proof and long life.
 - k Excellent ability to pass foreign objects (can discharge spherical solids with a diameter which equals to the bore size) and superior pumping performance.
 - l Vortex type increases resistant against wearing due to sand etc., and reverts startup failure due to rusted impellers.
 - m Equipped with a motor with built-in auto-cut to prevent motor burnout.
 - n Two types available: floor mount and pedestal support type for easy maintenance and inspection.

Types

Operation method	Model
Non-automatic	VUS type
Automatic	VUS-L type
Auto alternate	VUS-LN type

Ability to pass foreign objects

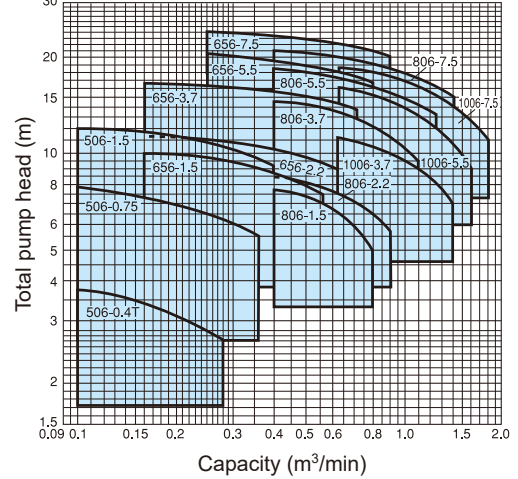
Bore (mm)	Solid Sphere diameter (mm)	Cloth		
		Packaging tape	Cotton gloves	Panty hose
50	50	400mm or smaller OK with restart for 0.75kW and 50Hz, 1.5kW	○	○
65	65		OK with restart for 1.5kW or less	OK with restart for 2.2kW or less and 60Hz, 3.7kW
80	80			
100	100			



Note: Guide pipes are not included.

Special specification With flood detector · Please inquire for details.

60Hz



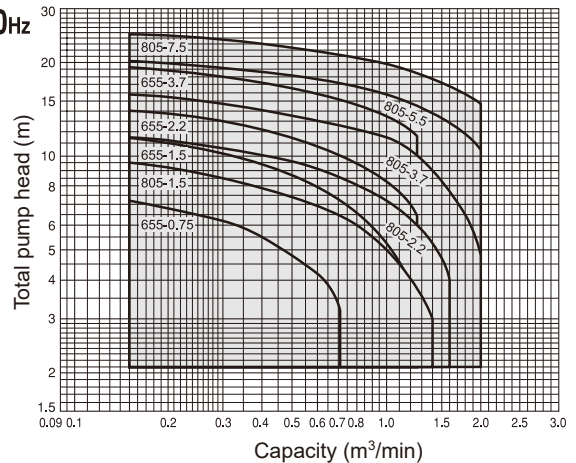
High-efficiency non-clog impeller

BUM type

For Manholes, 4 poles

Selection

50Hz



Application Submersible sump pumps for manholes installed as relay pumps for sewage main piping and sewage treatment facilities such as for sewage relay and drainage of sump from agricultural communities.

- Features**
- g The ability to pass foreign objects is 100% of the bore size (can discharge spherical solids with a diameter which equals to the bore size).
 - k The closed-type, high-efficiency, non-clog impeller (patent pending) and our original casing structure provide high pumping performance with high efficiency.
 - l Combination of a prewhirl tank and a pump with bell mouth allows operation up to low residual water level, while discharging suspended particles and suppressing scum and bad smell.
 - m Control panel for manhole pumps and necessary parts are also available as special accessories.

Ability to pass foreign objects

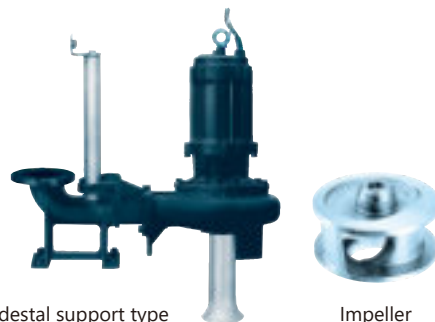
100% of the bore (sphere diameter in mm)



Pump/manhole combination table

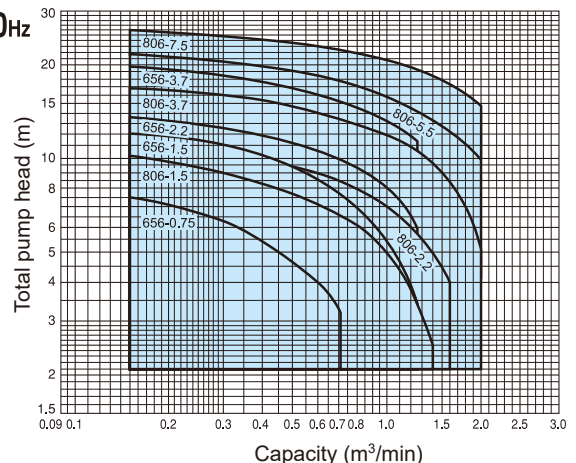
Pump Bore (mm)	Manhole (size)			
	Type 1 φ900	Type 2 φ1200	Type 3 φ1500	Type 4 φ1800
65		○	○	○
80		○	○	○

Special specification With flood detector



Note: Guide pipes are not included.

60Hz



Stainless steel made vortex type

VUM type

For Manhole, 4 poles

Selection **50Hz**

Application Submersible sump pumps for manholes installed as relay pumps for sewage main piping and sewage treatment facilities such as for sewage relay and drainage of sump from agricultural communities.

- Features**
- g Stainless steel made precision casting (SCS) is used in the pump and pedestal support, which gives features of high corrosion proof and durable with long service life.
 - k The sump pump is a vortex type with non-blocking feature, with a 4-pole motor with a large starting torque.
(Can discharge spherical solids with a diameter which equals to the bore size.)
 - j Combination of a prewhirl tank and a pump with bell mouth allows operation up to low residual water level, while discharging suspended particles and suppressing scum and bad smell.

Standard accessories Stainless steel sump pump, stainless steel bell mouth, stainless steel pedestal support, stainless steel direct coupling straight pipe, stainless steel chain

Ability to pass foreign objects

100% of the bore (sphere diameter in mm)

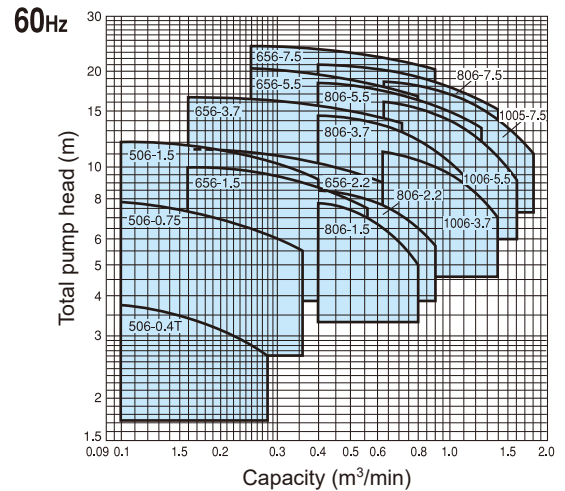
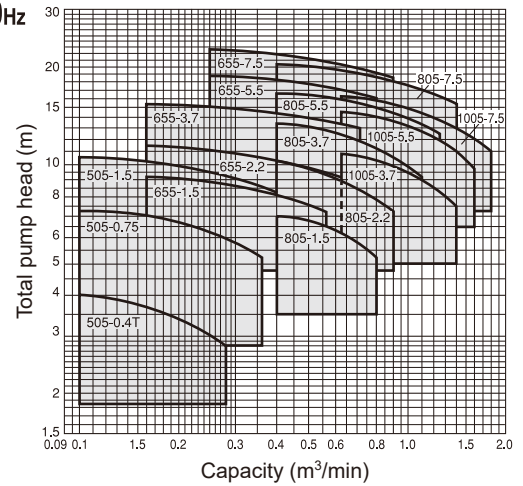
Pump/manhole combination table

Pump Bore (mm)	Manhole (size)			
	Type 1 φ900	Type 2 φ1200	Type 3 φ1500	Type 4 φ1800
50	○	○	○	
65		○	○	○ (3.7kW or above)
80		○	○	○
100			○	○

Special specification With flood detector



Note: Guide pipes are not included.



Separately sold parts

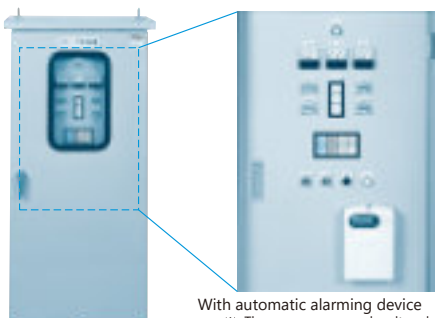
Control panel for ECM2 type manhole pump

Features

- Easy installation of pole mounting. (Outdoor specification with lock)
- Supports throw-in water level gauges and float switches in standard models.
- Standard models also support voltmeters, ammeters and earth leakage circuit breakers as well as counter of accumulated operation time and number, and phase advance capacitor.
- Equipped with an abnormal water level detector function.
- Equipped with a connection terminal for in-house power generation in case of power outage.
- Control panels with automatic alarming device are available as a variation. (Standard models have an installation space.)

Specifications

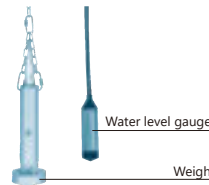
Model	ECM2-A type	ECM2-P type
Operation method	Alternate	Alternate/Parallel
Rated capacity	0.4 - 7.5kW	0.4 - 7.5kW×2
Panel display	Instruments	Voltmeter, ammeter, operation counter, operation timer (instruments other than the voltmeter are separate)
	Indicator light	Operation, stop, fault (separate) Manhole water level (HH, H, L level), abnormal high water level
External dimensions (max.)	1400×700×350mm (length × width × depth)	
Applicable pole for installation	φ170 - 400mm (Installation metal fitting for φ170 - 230mm) (Installation metal fitting for φ230 - 300mm) (Installation metal fitting for φ300 - 400mm)	



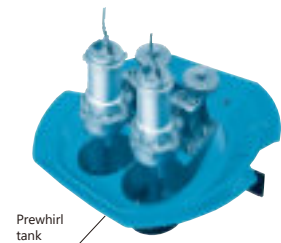
With automatic alarming device
※ The appearance may be altered.

Water level gauge (throw-in)

With weight (6m SUS chain)



Prewhirl tank



Sump check valve

Nylon coated valve
(Please inquire for stainless steel valves.)



Check valve

Ball valve (stainless steel)

Please inquire for details.

Float switch (EHF5-S type)

For backup



Special accessories

Hose Coupling (bamboo shoot shaped) Plastic

- For WUP4 type



Bore mm	Name
32	32A Hose coupling
40	40A Hose coupling
50	50A Hose coupling

Pedestal Support Plastic

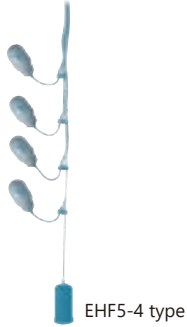
- For WUP4, WUO4, YUK2 type



Bore mm	Model	Note
40	UJP-40-5K	—
50	UJP-50-5K	0.75kW or less
	UJP-50-7K	1.5kW
65	UJP-65-7K	1.5kW
	UJP-65B-7K	2.2, 3.7kW
80	UJP-80-7K	—

Includes a rope for hanging the pump.

Float Switch



EHF5-4 type



EHF5-1 type

(For seawater model is also available)



Attachable to 2 poles manual type wastewater pump 0.75kW or less

EHFR type [Low water level control space saving model] (Example of combination with WUP type)

Sump Check valve



- Nylon coated
- Install on a vertical pipeline.
- JIS IOK thin flange
- Operation pressure: 0.29MPa (3kgf/cm²) or less

Stainless Steel Pedestal Support



Control Panel



ECD3-P type



ECDW3-P type

- Control panel with a microcomputer for submersible sump pumps ensures control and protection.
- Control panels for indoor and outdoor are available for individual operation, and control panels for indoor and outdoor (with a pole) are available for auto alternate/parallel operation.
- Control panel specifications include standard specifications and also special specifications are available.
- Alternate/parallel type equips ELB as standard

Type	ECD2 type (indoor)	ECDW type (outdoor)	ECD3-P type (indoor)	ECDW3-P type (outdoor)	ECDD3-P type (outdoor with a pole)
Control method	ON-OFF control by input from the float switch				
Operation method	Individual		Alternate/Parallel		
Rated capacity	0.15kW ~ 7.5kW		0.15kW ~ 7.5kW × 2		
Rated voltage	Singlephase 100V : 0.15kW ~ 0.4kW Three phase 200V : 0.25kW ~ 7.5kW				
Protectionfunction (- 1)	Overcurrent protection, magnet switch fault detection		Phase failure, reverse phase, overcurrent protection, magnet switch fault detection		
Display	Power indicator light	· (White)	· (White)		
	Operation indicator light	· (Red)	· (Red) : No1, No2 Individual indication		
	Fault indicator light	· (Orange)	· (Orange) : No1, No2 Individual indication		
	Reverse phase indicator light	—	· (Orange) : For three phase 200V only		
	Abnormal water pressure indicator light	· (Orange)	· (Orange)		
Pump selection indicator light	—	· (Red) : No1, No2			
External signal (no voltage)	Ammeter	· (Analog)	· (Digital, with 3-digit display)		
	Operation	· (- 2)	· (Collective)		
	Fault	· (- 3)	· (Collective)		
Water level	· (- 3)	·			
Alarm buzzer	·	·	·		

(- 1) Detected by the microcomputer in the control panel. Phase failure and reverse phase are for three phase 200V only.

(- 2) Auxiliary contact output of the magnet switch. (- 3) Output collectively as an alarm output.

Full water alarm panel



EBA- $\frac{1}{2}$ type

- Sends out an alarm with a buzzer and lamp and also outputs a signal of no external voltage at abnormal water level (full water).

Sump Pump Defect Detector



EFS type

- Float switch fault, lock due to foreign objects, no power transmission due to tripped earth leakage breaker, and pump fault are identified and displayed by LED.

- Applicable pump
Submersible sump pump with a float switch for three phase 200V

DUG2/DU₄²/DUM2 type

For Construction

Application For general civil engineering and construction works, and drainage from pits, manholes, etc.

- Features**
- g. Uses semi-open impeller to avoid clogging by foreign objects.
 - k. Small size and light weight enable easy handling, maintenance and inspection.
 - l. Equipped with a motor with built-in auto-cut to prevent motor burnout.



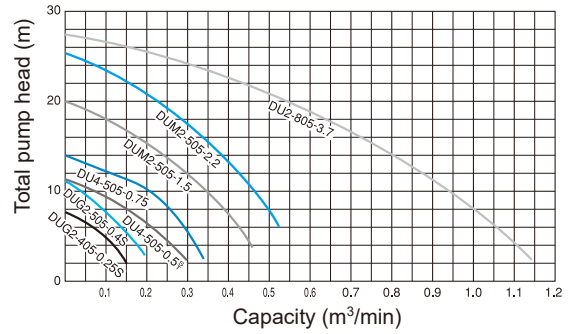
DUG2 type

DU4 type

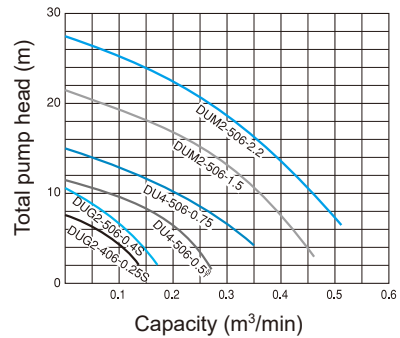
DUM2 type

DU2 type

50Hz



60Hz



LU2 type

For Residual water

Application For drainage of bottom water from water receiving tank cleaning and residual water of various pits, pools, etc.

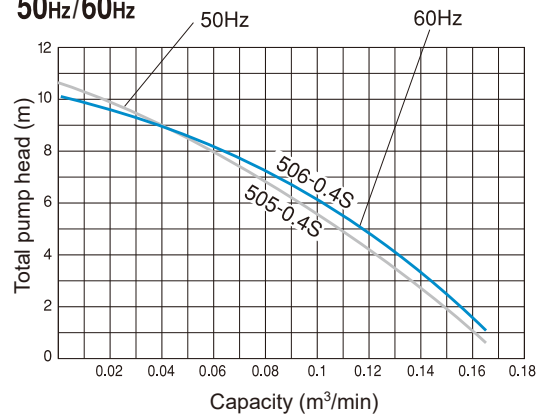
- Features**
- g. Residual water sump pump with excellent drainage performance, with the minimum pumping water level in millimeter order. (The minimum pumping water level varies depending on the bottom surface conditions. 1 - 3mm)
 - k. In-pump air separation mechanism prevents air lock and improves re-pumping performance.
 - l. Uses aluminum frame motor to realize a light and compact design which is easy to carry. (Mass: 8.0kg)
 - m. Equipped with a small powerful motor with built-in auto-cut to prevent motor burnout.



LU2 type

Selection

50Hz/60Hz



* DUG2/DU₄²/DUM2 type and LU2 type are portable submersible sump pump for construction and submersible sump pump for residual water. Do not use them in long continuous operation or under an installation condition where the pump is completely under water at all times. The pump may break in short time.



Comfort Earth®

To reduce the environmental burden and protect the environment, we at KAWAMOTO PUMP will keep on carrying out activities as a united force under our slogan "Comfort Earth", as a company involved with the valuable resource that is "water".



Kawamoto products with this mark are products with excellent energy-saving and environmentally friendly features.

⚠ Important Safety Precautions

Always read the manual thoroughly and fully comprehend the contents for safe operation before starting use. Precautions for using products safely and for preventing personal injuries or physical damage are given in the manual.

- Matters falling under the following may not be covered by the warranty: uses out of the specified scope of application, failure to comply with precautions, improper repairs and alterations, matters arising from natural disasters, matters arising from the installation environment (improper power source, foreign objects, sand etc.), non-compliance with laws and regulations or standards pertaining thereto, accidental or intentional damage or injury, replacement of consumable parts, defects due to resale, etc.
- Do not use the product for applications out of the product specifications. Doing so may cause electric shock, fire, water leakage, etc.
- Have spare equipment ready when using pumps for equipment for living things (fish farms, fish tanks, aquariums, etc.) or critical equipment.
- Pump failure may cause lack of oxygen and water quality deterioration, and may affect the lives of the living things.

When using pumps for equipment for living things (fish farms, fish tanks, aquariums, etc.), do not install the pump in the tank where the living things are put into. The current leakage or sealing liquid leak from the mechanical seal may cause the death of the living things.

- If used to transport food-related items, give due consideration to the materials used. Contamination by foreign objects may occur.
- Avoid using for living things which disagrees with copper alloy. It may affect the lives of the living things.
- Select a product which is appropriate for your application. Inappropriate use of products may cause accidents.
- Conduct construction in accordance with the applicable laws and regulations (the Technical Standards of Electric Installation, interior wiring regulation, Building Standards Act, Water Supply Law, etc.). Not only does it violate the laws and regulations, but it also may cause injuries due to electric shock, fire, falling and tipping over.
- Do not use in places where people are assumed to get in contact with the product (baths, pools, lakes, etc.). Electric leak may occur and cause electric shock.
- Depending on the equipment, attach a filter etc. appropriate for your application on the discharge side before use, perform thorough flushing to check that there is no contamination. Cutting oil, rubber mold releasing agent, foreign objects etc. from the manufacturing line and cutting oil, foreign objects etc. from the pipeline may contaminate the liquid which is to be handled.
- Do not operate pumps with a specification of 50Hz at 60Hz. It may cause damage due to overpressure or burn damage of motors etc. due to overload. Do not operate pumps with a specification of 60Hz at 50Hz. Pump performance may be reduced.
- Only repair technicians may disassemble, repair, modify the product or replace cables. Defects may cause failure, damage, electrification or fire.
- It is recommended that both periodic and daily inspections be performed in order to ensure that the pump will operate reliably for as long as possible. Failure to perform inspections may lead to pump failure, accidents etc. For periodic inspections, please consult your distributor or our nearest sales office.

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Distributor

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For any question about pumps, please contact your nearest distributor

Name	Submersible Sump Pump
No.	3710 Y (E)