

From Intake, Circulation, Booster, Drainage and Wastewater treatment to Production equipment

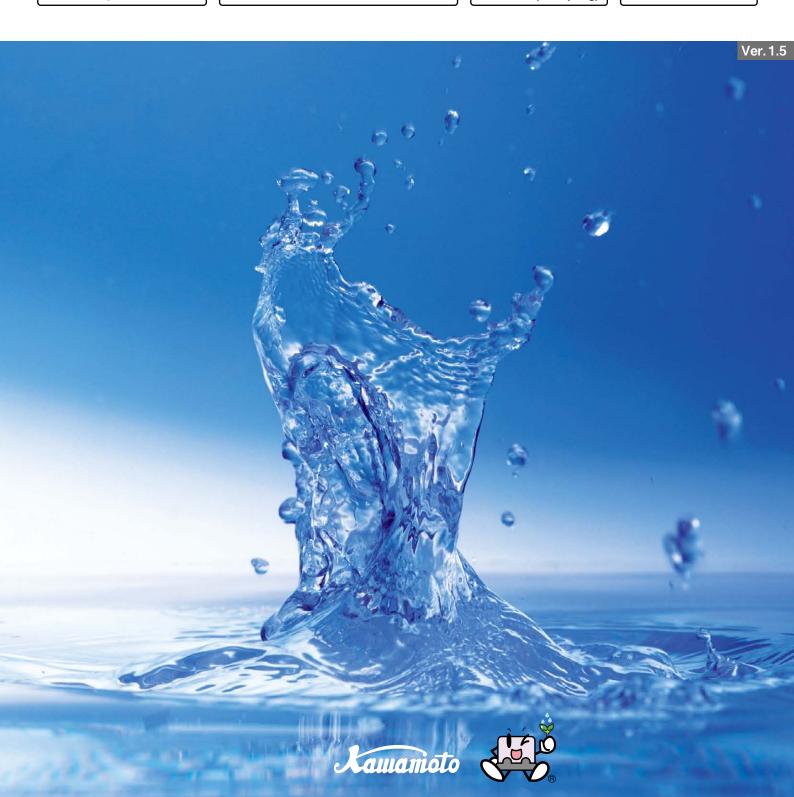
### **Kawamoto's Pump Series**

Lift up, Booster, Circulation, and Drainage

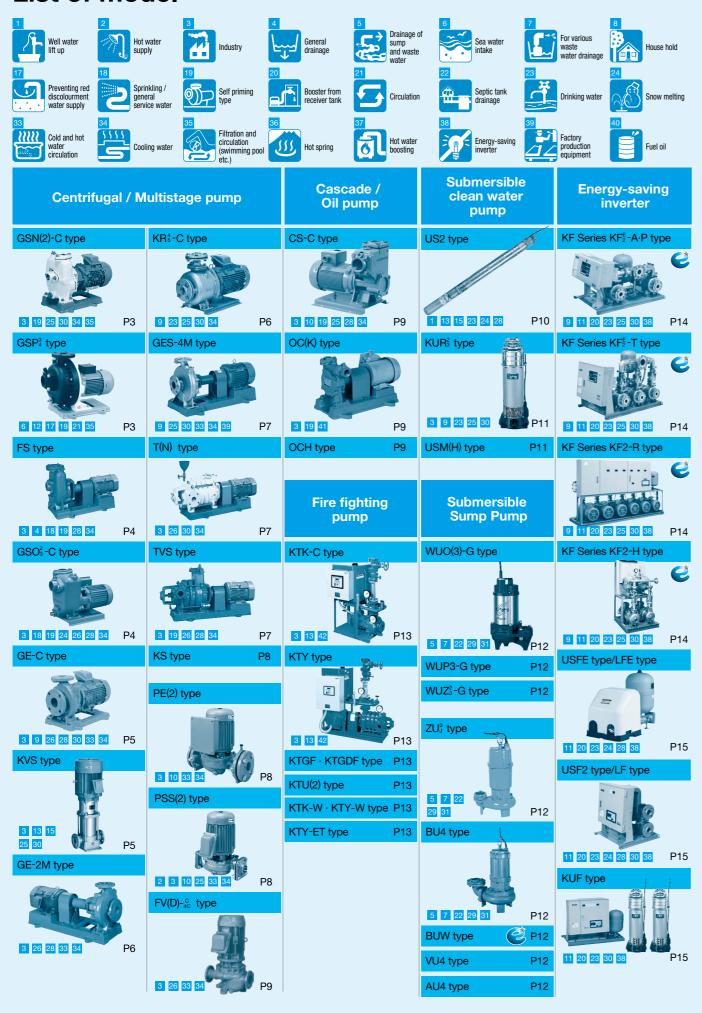
Water supply equipment / Small regional drinking water /Energy-saving inverter

Seawater / Hot water (Hot spring)

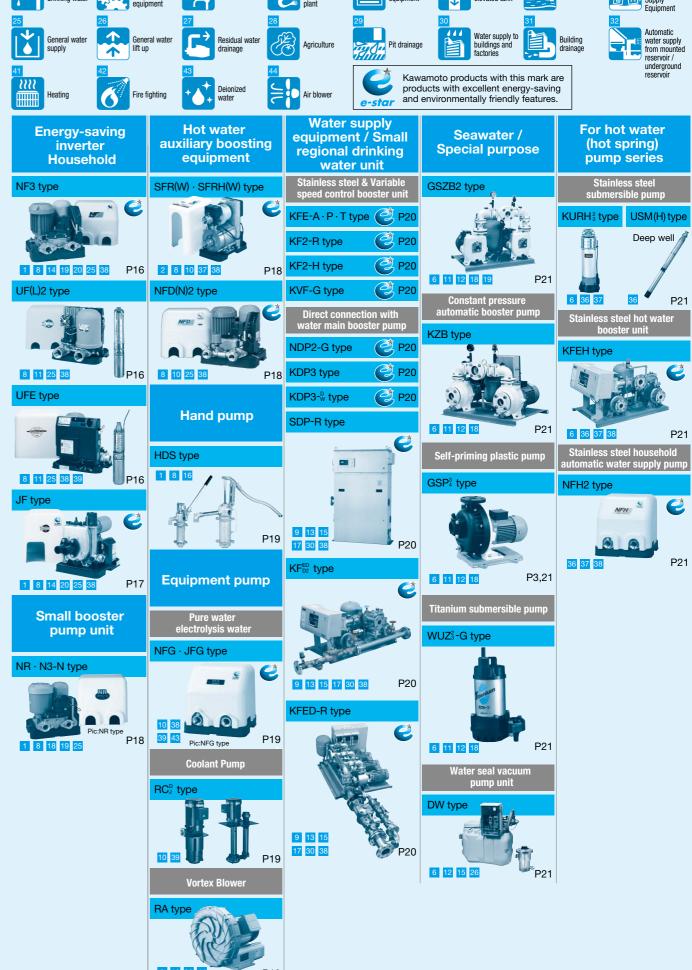
**Production equipment** 



### List of model



The standard configuration for pump systems with that those with an output of 0.75 kW or more are equipped with a Premium efficiency motor (IE3 efficiency), and those with an output of 0.4 kW or less are equipped with a standard efficiency motor. Please consult your distributer for the motor specifications.



3 10 39 44 P19

### **Centrifugal / Multistage pump series**









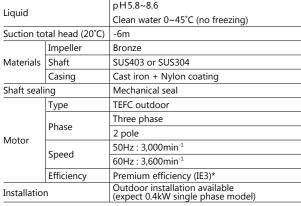






- Preventing red discolorment of water by exclusively design as nylon coating
- Adoption of low noise type TEFC motor
- Self-priming pump construction does not require foot valve and makes priming works easier
- Easy maintenance and inspection due to back pull

#### Standard specifications



<sup>\* 0.75</sup>kW or more is equipped with a Premium efficiency motor

#### Sister models Cast iron type

Self-priming turbine pump GS<sub>3</sub><sup>2</sup>-Ctype

Bore : 25~100mm Motor: 0.25~7.5kW





















### GSP<sup>3</sup> type

### **KAWA HOPE**

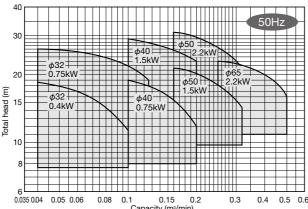
- Improved strength by using chemical resin material. Outdoor use allowed.
- Using stainless steel for metal material such as the shaft, which prevents corrosion and
- Fast self priming and outstanding suction properties. • Easy maintenance attributed by simple
- structure and semi-open impeller
- Flanged the discharging side connection part.

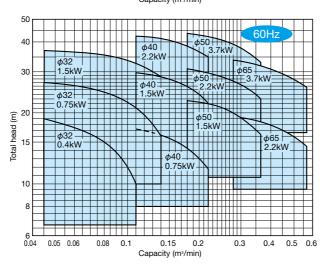


#### Standard specifications

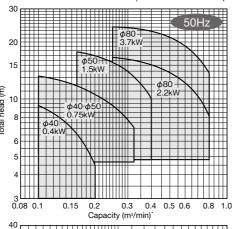
Jiai	iuai u spet	ilications	
Liquid		Sea water / Clean water 0~60°C (no freezing)	
		[Clean water]: pH5.8~8.6 chloride ion concentration 200mg/L or less	
		[sea water]: pH7.8~8.2 chloride ion concentration 19000mg/L or less Sand content 1000mg/L or less	
Suction to	tal head (20°C)	-7m (0.4kW or Bore size 80mm model: -6m)	
	Impeller	Resin	
Materials	Shaft	SUS316	
	Casing	Resin	
	Туре	TEFC outdoor	
Motor	Phase	Three phase	
	Efficiency	Premium efficiency (IE3)*	
Installation		Indoor/Outdoor	
*0.7EI/M or	mara is aquinnad	with a Dramium officional mater	

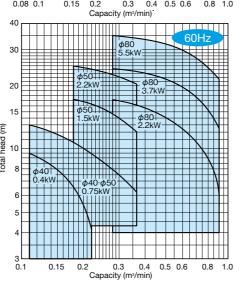
### Selection chart (Value in the chart shows the suction bore and Motor output: kW of pump





### Selection chart (Value in the chart shows the suction bore and Motor output: kW of pump





### 











### FS(4) type Sel-super



- Features
- Over the years actual achievement as a self-priming
- Self-priming pump construction does not require foot valve and makes
- Mechanical seal types are also available (bore size: 50~100mm)
- Easy maintenance and inspection due to back pull out construction

#### Standard specifications

- Olui	.uu.u opt	Jonnoutionio	
Liquid		Clean water 0~40°C (no freezing)	
Suction total head		Bore size 25mm/-3m	
		Bore size 32mm/-3.5m (60Hz: -5m)	
(20°C)		Bore size 40~65mm/-5.5m (60Hz: -6m)	
		Bore size 80~150mm/-6m	
	Impeller	Cast iron	
Materials	Shaft	SUS403 (portion contacting liquid)	
	Casing	Cast iron	
Shaft sealing		Gland packing, Mechanical seal	
	Туре	TEFC outdoor (single phase 0.4kW or less has ODP motor)	
	Phase	Three phase	
Motor		4 pole	
	Speed	50Hz: 1,500min <sup>-1</sup>	
		60Hz: 1,800min <sup>-1</sup>	
	Efficiency	Premium efficiency (IE3)*	
Installation		Indoor	
*0.75kW.or	more is equippe	ed with a Premium efficiency motor	

### 











### GSO3 - C type

#### Features

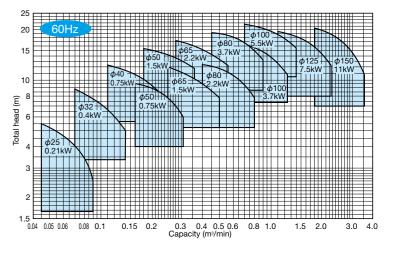
- Superior suction performance make it possible to pump up even from deep wells
- Strong and durable construction against sand by adopting special kind mechanical seal • The protection switch (manual return) provides
- A semi-open type impeller is resistant to foreign
- objects such as sand. A Back Pull Out structure is incorporated.

#### Standard specifications

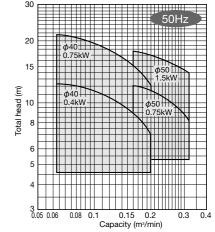
Liquid		Clean water 0~40°C(no freezing)
Suction total head*1 (20°C)		Bore size 40mm/0.4kW/-8.5m(Max9m)
		Bore size 40mm/0.75kW/-8m (Max9m)
(20 C)		Bore size 50mm/0.75, 1.5kW/-8m (Max8.4m)
	Impeller	Bronze or Stainless Cast Steel or Resin
Materials	Shaft	SUS304 (portion contacting liquid)
	Casing	Cast iron
Shaft sealing		Mechanical seal
	Variation	TEFC outdoor
	Phase	Three phase
Motor	Speed	50Hz: 3,000min <sup>-1</sup>
		60Hz: 3,600min <sup>-1</sup>
	Efficiency	Premium efficiency (IE3)*2
Installation		Indoor

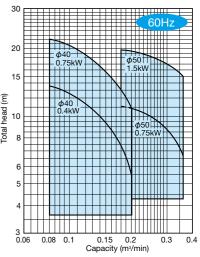
(\*1) Discharge performance may drop when pump operate under negative suction total head (\*2) 0.75kW or more is equipped with a Premium efficiency motor.

# Selection chart (Value in the chart shows the suction bore and Motor output: kW of pump



#### / Value in the chart shows the suction Selection chart bore and Motor output: kW of pump





### **Centrifugal / Multistage pump series**











### **GE-C** type



#### Features

- Compact, light weight and less installation space by adoption of 2 pole
- Long life mechanical seal is adopted for shaft sealing
- Easy maintenance and inspection without dismantle of piping due to back pull out construction and simple structure
- Evaluated item of <Horizontal centrifugal pump> by (C) Public

#### Standard specifications

Liquid		Clean water 0~90°C (no freezing)
Suction total head (20°C)		-6m (60Hz Bore size 50mm 0.75kW : -3.2m, bore size 80mm 5.5, 7.5kW : -5.5m
	Impeller	Cast iron or Bronze
Materials	Shaft	SUS304
	Casing	Cast iron
	Туре	TEFC outdoor
	Phase	Three phase
Motor	Speed	50Hz : 3,000min <sup>-1</sup>
		60Hz : 3,600min <sup>-1</sup>
	Efficiency	Premium efficiency (IE3)
Installation		Indoor











### **KVS** type

#### Features

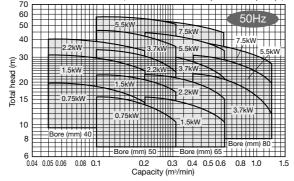
- $\bullet$  Compact, light and space saving design • Adoption of Stainless steel precision casting for Casing, stage casing, etc.
- Mechanical seal can be changed without removing electric motor due to outstanding construction feature (unit type mechanical seal cover with mechanical seal support and spacer shaft coupling)

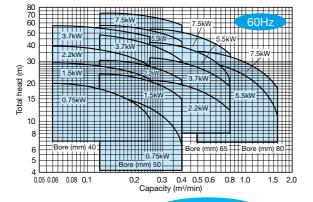
#### Standard specifications

Liquid		Clean water 0~90°C (no freezing)
		Bore 25~50mm/-6m
		Bore 65mm/-5m
Suction to	otal head (20°C)	Bore 80mm·100mm (5.5kW·50Hz) /-4m
		Bore 80mm·100mm (7.5~22kW·50Hz) /-5m
		Bore 80mm·100mm (60Hz) /-3m
	Impeller	SCS13 or SUS304
Materials	Shaft	SUS316
	Casing	SCS13
Shaft sealing		Mechanical seal (SiC x Carbon)
	Туре	TEFC outdoor (11~37kW : indoor)
	Phase	Three phase
Motor	Speed	50Hz : 3,000min <sup>-1</sup>
		60Hz : 3,600min <sup>-1</sup>
	Efficiency	Premium efficiency (IE3)
Flange		JIS 20K equivalent
Installation		Indoor/outdoor (11~37kW : indoor)
* K//C   W  ·	for high proceuro	-

<sup>\*</sup> KVS-HM : for high pressure

### Selection chart (Value in the chart shows the suction bore and Motor output: kW of pump)



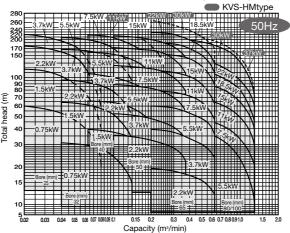


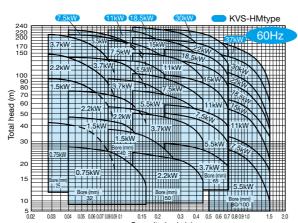
#### Sister models

Stainless steel **GES-C** type

Bore : 40~65mm Motor: 0.75~7.5kW (50Hz) 1.5~7.5kW (60Hz)

Selection chart (Value in the chart shows the suction bore and Motor output: kW of pump)













### **GE-2M** type



- Compact, light weight and less installation space by adoption of 2 pole
- Other than standard model (GE-2M type) , Nylon coating type (GEN-2M type) is also available
- Long life mechanical seal is adopted for shaft sealing
- Easy maintenance and inspection without dismantle of piping due to back pull out construction and simple structure

#### Standard specifications

Liquid		Clean water 0~90°C (no freezing)
Suction to	otal head (20°C)	within -6m (it may differ depending of model inquire.)
	Impeller	Cast iron or Bronze
Materials	Shaft	SUS403 (portion contacting liquid)
	Casing	Cast iron
	Туре	TEFC indoor
	Phase	Three phase
Motor	Speed	50Hz : 3,000min <sup>-1</sup>
		60Hz : 3,600min <sup>-1</sup>
	Efficiency	Premium efficiency (IE3)*
Installation		Indoor
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- \* 0.75kW or more is equipped with a Premium efficiency motor
- GE-4M (4 poles motor) type are also available. Inquire for further information.











### KR<sub>5</sub>-C type

#### Features

- Stainless steel precision casting
- Quiet sound design of pump and electric motor enable pump unit
- Easy maintenance and inspection due to back pull out construction

#### Standard specifications

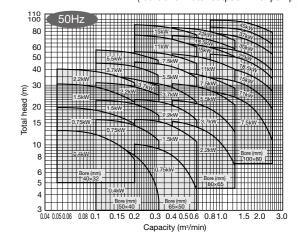
Liquid		Clean water 0~40°C (no freezing)
Suction total head (20°C)		-6m
	Impeller	Resin or SCS13 or Bronze
Materials	Shaft	SUS304 (portion contacting liquid)
	Casing	SCS13
	Shaft sealing	Mechanical seal (Ceramic x Carbon)
	Туре	TEFC indoor
Motor	Phase	Three phase
IVIOTOI	Speed	50Hz : 3,000min <sup>-1</sup>
		60Hz : 3,600min <sup>-1</sup>
	Efficiency	Premium efficiency (IE3)*
Companion flanges		Special flange
		·

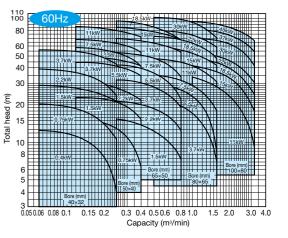
<sup>\*</sup> Three phase 0.75kW or more is equipped with a Premium efficiency motor.

#### Sister models

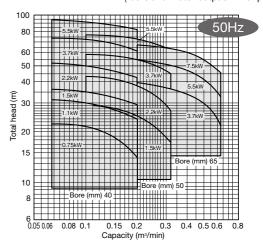
Stainless steel KR5-M type Bore : 40~65mm Motor: 1.5~7.5kW

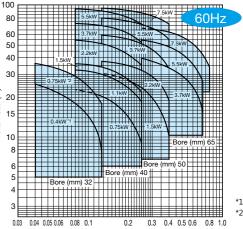
#### / Value in the chart shows the suction Selection chart bore and Motor output: kW of pump





#### Selection chart | Value in the chart shows the suction bore and Motor output: kW of pump





\*1: Single phase100V

### **Centrifugal / Multistage pump series**











### **GES-4M** type

#### Features

- Sanitary and clean due to stainless material are used for all portions contacting liquid
- Mechanical seal standard adopted.
- TEFC electric motor as standard
- High pump efficiency and water pumping characteristics.



#### Standard specifications

Liquid*1		Clean water 0~90°C (no freezing)	
Suction total head (20°C)		-6m	
	Impeller	SCS14	
Materials	Shaft	SUS316 (portion contacting liquid)	
	Casing	SCS13	
Shaft sealing		Mechanical seal (SiC x Carbon)	
	Туре	TEFC inoor	
	Phase	Three phase	
Motor	Speed	50Hz: 1,500min <sup>-1</sup>	
		60Hz: 1,800min <sup>-1</sup>	
	Efficiency	Premium efficiency (IE3)*2	
(*1) Inquire for special kind lie		uid usa	

(\*1) Inquire for special kind liquid use.

(\*2) 0.75kW or more is equipped with a Premium efficiency motor.



#### ister models

Stainless steel **GES-2M** type

Motor: 0.75~7.5kW



### T(N) • TK(N) type

**Turbine pump (Multi-stage pump)** 

### TVS type · KS type

### **Self-priming turbine pump**

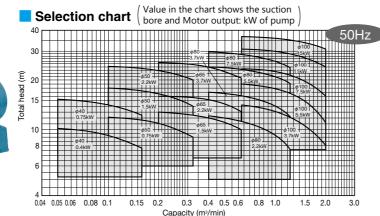
#### Features

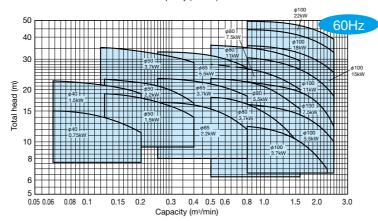
#### $T(N) \cdot TK(N)$ type

- Less installation space according to simple and compact pump construction with light weight
- Other than standard model (T/TK), Nylon coating type (TN/TKN)
- Evaluated item of <Horizontal centrifugal pump> by (C) Public Buildings Association., Ltd. (Japan) (T/TK type)

#### TVS type, KS type

- Self-priming pump construction does not require foot valve and makes priming works easier
- Various kind of models for small to large flow rate





## :40~200mm Output: 1.5~132kW Bore : 40~150mm Output: 1.5~75kW TVS type Bore : 40∼150mm Output: 1.5~75kW

KS type Bore : 40∼80mm Output: 2.2~22kW

### 

#### PE(2) type P in Line pump

#### Features

- Single phase motor is equipped with a motor protective device which prevent motor burnout. (250W or less)
- All model adopts totally-closed motor. The quiet design enables a low level noise as an open motor.
- The newly-developed high class mechanical seal prevents mechanical chatter. This seal prevents leak and extends the products life.

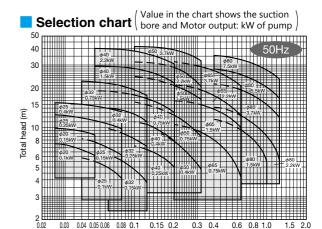


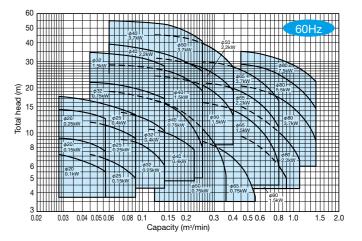
#### Standard specifications

- Otalidala opcomoditorio		
Liquid		Clean water 0~90°C (no freezing) (Maximum 100°C : Please inquire)
Suction total head (20°C)		Bore 20∼65mm −6m
		Bore 80mm -5.5 (-3m for 60Hz)
	Impeller	SCS13
Materials	Shaft	SUS304 (portion contacting liquid)
	Casing	Cast iron
Shaft sealing		Mechanical seal
	Туре	TEFC outdoor
	Phase	Single phase
Matau		Three phase
Motor	Speed	50Hz: 3,000min <sup>-1</sup>
		60Hz: 3,600min <sup>-1</sup>
	Efficiency	Premium efficiency (IE3)*
Installation		Indoor/Outdoor

\* Three phase 0.75kW or more is equipped with a Premium efficiency motor Note) Apply for anti-freezer within following specification.

- Kind: Nybrine Z-1, GD brine 950 and Showbrine PP super
- Density: 35∼50%
- Liquid temperature: 0~90°C





### PSS(2) type

**Petit Line** 

Stainless steel

PSS (2) type Petit Line Bore : 20~80mm Motor : 0.06~7.5kW

FV(D)-C type Large water type

**Vertical type Centrifugal Pump** 



FV (D)-<sup>c</sup><sub>4c</sub> type Vertical type Centrifugal Pump Bore : 100mm (2 Pole) ~200mm (4 Pole)

Motor ∶ 7.5~90kW

### **Cascade pump series**







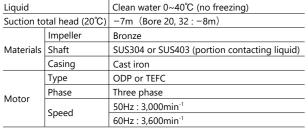


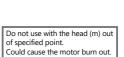


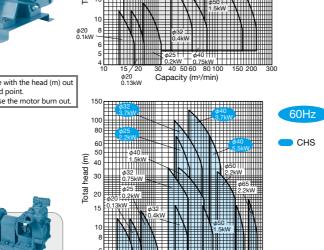


- Self-priming pump construction does not require foot valve and makes priming works easier
- Long-life product with high suction performance and
- Easy maintenance due to adoption of sealed ball bearings required no oiling.
- Equipped with a motor protective switch which prevent motor burnout.

#### Standard specifications







Selection chart

output: kW of pump

/ Value in the chart shows the suction bore and Motor

50Hz

CHS

#### CHS type CS3 type (Only 60Hz) CS2 type Bore : 25~40mm Bore : 20~50mm Bore : 20~25mm Motor: 1.5~5.5kW Motor: 0.2~2.2kW Motor: 0.2~0.4kW

### Oil pump series











#### Features

- The vortex pump enables quiet operation. (Unlike the gear pump, there is no gear contact section)
- Since it is a self priming type, it operates with priming the oil once, and easy to pump oil.
- Mechanical seal is used for the shaft sealing ,which prevents oil leak and keeps clean.
- Increased safety explosion-proof type is adopted as
- Conformed to "Public building construction standard specification" by Public building association. (Japan) • OC(K) type for A type heavy oil(high-calories special
- A type heavy oil) is also available.
- OC-TT type, a service tank installed unit, is also

#### Standard specifications

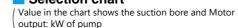
Liquid		Kerosene, light oil, A type heavy oil (*) Fuel oil of 45 centistokes or less 60°C or less	
	Impeller	Bronze	
Materials	Shaft	SUS403	
	Casing	Cast iron	
Shaft sealing		Mechanical seal	
	Туре	Increased safety explosion-proof type (Japan)	
Motor	Phase	Three phase	
	Speed	50Hz: 1,500min <sup>-1</sup> 60Hz: 1,800min <sup>-1</sup> (OC(K) type	
		50Hz: 3,000min <sup>-1</sup> 60Hz: 3,600min <sup>-1</sup> (OCH type)	

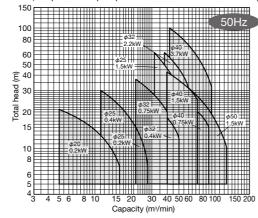
Do not use with the head (m) ou of specified point.
Could cause the motor burn out.

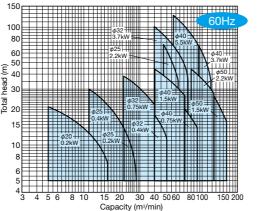
OCH type

#### Selection chart

Capacity (m3/min)







#### \* Use the OCK type for special A type heavy oil.

### Submersible clean water pump series











### **US2** type

#### **SANRONG**

#### Features

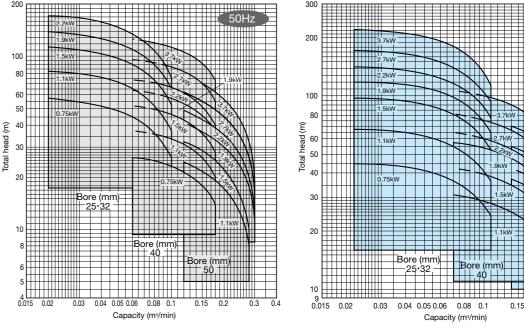
- The pump section is resistant to sand, and in addition a thick precision casting stainless steel is incorporated. More strong to sand and reliable by a new-type motor excellent in durability and bearing lubrication.
- The pump is stainless steel and resin. The motor section is made of stainless steel and prevents the formation of red water. The well lid is also made of stainless steel for sanitation purposes.
- The pump's flow passage is smooth and has little loss. High pump characteristics are realized, and the pump's entire length is downsized. (compared to conventional products).
- The key components are made of precision cast stainless and steel, and are strong against rust and corrosion. When used in combination with the new stainless steel motor having outstanding sand resistance properties, water can be supplied stably for a long time.

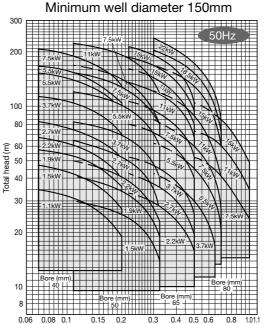
#### Standard specifications

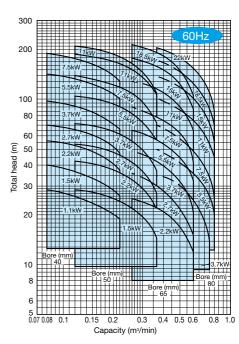
Liquid		Clean water 0~30°C (3.7kW or less: 0~35°C) (pH5.8~8.6,Chloride ion concentration 200mg/L or less, Sand content 50mg/L or less (fine sand dia. 0.1~0.25mm or less))	
	Impeller	SCS13	
Materials	Shaft	SUS304 or SUS403	
Materials	Casing	SCS13 (32 and 25mm bores are middle casing SUS304 + resin)	
Bearing		SiC×SiC	
Motor	Туре	Canned submersible motor	
	Phase	Three phase (55kW: 400V)	
	Consider	50Hz: 3,000min <sup>-1</sup>	
	Speed	60Hz: 3,600min <sup>-1</sup>	

\*400V type is also available

### Selection chart (Value in the chart shows the suction bore and Motor output: kW of pump) Minimum well diameter 100mm







<sup>\*</sup> For 200/250/300mm well types are also available. Inquire for further information.

<sup>\*</sup> If installed in a well larger than the well diameter of the specification table, the submerged motor may burn out due to insufficient cooling of

### Submersible clean water pump series

### Stainless steel

### USM(H) type

#### Features

- This pump newly developed for spa use can be used with hot spa water up to 70°C for USM type, up to 90°C for USMH type (80°C
- The key components are made of precision cast stainless steel (SCS13) and have a long
- SiC is used for the bearings to enhance the sand resistant design.

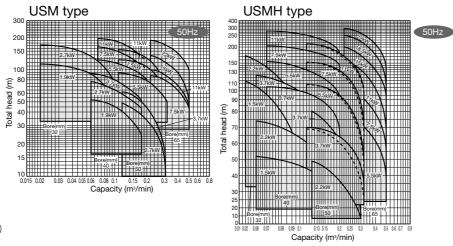
#### Standard specifications

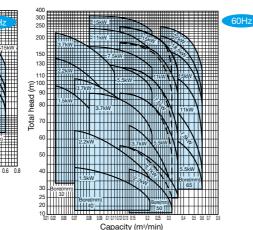
Liquid		thread, sodium-hydrogen carbonate pH6 to 9 (Sand content 50mg/L or less (fine sand dia. 0.1~0.25 mm or less)
	Impeller	SCS13
Materi- als	Shaft	SUS304 or SUS403
u.5	c .	66613

Materi- als	Impeller	SCS13	
	Shaft	SUS304 or SUS403	
	Casing	SCS13	
Shaft sea	aling	SiC×SiC	
	Туре	Canned submersible motor	
Matau	Phase	Three phase	
Motor	c ,	50Hz : 3,000min <sup>-1</sup>	
	Speed	60Hz: 3,600min <sup>-1</sup>	
Max. submersing depth		USM : within 150 m	
		USMH : within 350 m	
* TC to stall and the second land of the second and			

- \* If installed in a well larger than the well diameter of the specification table, the submerged motor may burn out due to insufficient cooling of submerged motor. USMH Installed in the cooling flow rate to be 0.1m/s or more.
  - \* Accessories to prevent the occurrence of gas lock is also available (USMH-G type). Please inquire for details

Selection chart Value in the chart shows the suction bore and Motor output: kW of pump





# Stainless steel

### KUR<sup>2</sup><sub>3</sub> type

USM type

- Red water prevention structure mainly made of stainless steel, and resin and
- The pump casing and flanges are made from precision cast stainless steel to withstand heavy load and free from strain.
- Built in impact relief type check valve to protect the pump from water hammer thus long life is enjoyed.

#### Standard specifications

Liquid		Clean water 0~30°C (0.75~2.2kW: 0~35°C) (chloride ion concentration : 200mg/L or less, sand content 50mg/L or less)
	Impeller	SCS13 or Bronze
Materials	Shaft	SUS403 or SUS303
	Casing	SCS13 (Suction casing SUS304)
Motor	Туре	Canned submersible motor
	Phase	Three phase
	Speed	50Hz: 3,000min <sup>-1</sup>
		60Hz: 3,600min <sup>-1</sup>
Max. submersing depth		10m

#### Sister models

For hot water / hot spring submersible pump KURH 3 type

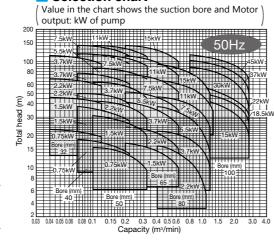
Bore : 32~50mm Motor: 1.9~7.5kW Liquid temperature: clean water 60°C or less

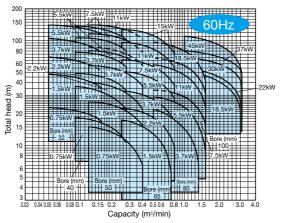
#### Sister models

exclusive for horizontal installation

KUR3-Ytype Bore : 32~65mm Motor: 0.75~3.7kW

#### Selection chart





### **Submersible Sump Pump Series**

### Resin







### WUO(3)-G type

#### **KAWA PET**

#### Features

- Vortex type and excellent performance to pass foreign objects.
- Light weight and easy-to-handle submersible sewage pump.
- Stainless steel made frame motor and plastic parts increase operating life.
- Uses glass fiber reinforced plastic for the impeller and casing, and equipped with a motor with built-in auto-cut having a large starting torque for stable operation.
- Can be paired with plastic pedestal support (special accessory).

#### Ability to pass foreign objects

• Dia. of foreign object (sphere shape): 35mm (2.2kW or more: 40mm)

#### Standard specifications

\* Foreign matter refers to free deforming soft matter excluding sand, etc. as defined in JISB8325.

Liquid		For Sewage (pH: 5~9) 0~40°C
	Impeller	Resin
Materials	Shaft	SUS304 (portion contacting liquid)
	Casing	Resin
Motor	Туре	Dry-sealed motor
	Phase	Single phase
		Three phase
	Speed	50Hz: 3,000min <sup>-1</sup>
		60Hz: 3,600min <sup>-1</sup>
Max. submersing depth		5m (1.5kW or more : 8m)

Selection chart

Sister models

WUP3-G type KAWA PET

Bore : 32~50mm Motor : 0.15~0.75kW

For Wastewater



Titanium seawater submersible pump WUZ3-G type KAWA HOPE

Bore : 32~80mm Motor : 0.15~3.7kW



### **BU4** type

Sewage water submersible pump

### **BUW** type



**Stainless Non-clog impeller** 

### ZU<sub>J</sub> type

Sewage water submersible pump

### VU4 type

AU4 type **CHAMPION** 

**Sewage water** Vortex with cutter submersible pump











ZU3 type Bore : 50~80mm Output: 0.4~7.5kW



Bore : 50~100mm Output: 0.75~15kW



Bore : 50~100mm Output: 0.75~7.5kW

### Fire fighting pump series





Products qualified by the Fire Equipment and Safety Center of Japan

### **SAFETY ACE® Series**





KTGF·KTGDF type 4 pole Centrifugal / High back pressure type





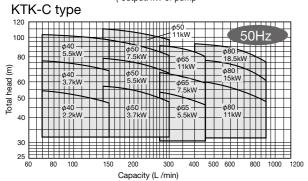
KTY-ET type Equipped with emergency power source (with engine)

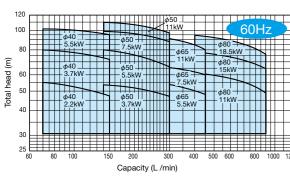


KTK-W type KTY-W type Cubicle type



Selection chart (Value in the chart shows the suction bore and Motor output: kW of pump





#### Note: Suction bore 80mm model is different form the pump bore because a reducer is attached. (Units without pump priming tanks are excluded)

- By adopting a 50L pump priming tank/ 50L pressure tank and control panel adopting high functional microcomputer compatible to the new technological standard, the installation area is minimized.
- Standardizing full water/decreased water circuit in the pump priming tank/ fire tank/ supply tank. (Two level relays (a special accessory) are required in order to detect full water/decreased water in supply tanks.) Additionally, automatic inspection of the fire pump can be performed by simply installing the separately sold automatic inspection accessory.
- A pump priming tank is highly resistant to rust and scratches due to high-quality powder coating applied, without problems of holes forming after long term use. (Stainless steel materials models are also available Inquire)
- The pump priming tank provides an electrode type fluid level detection, enabling detection of full water/decreased water in the pump priming tank as a
- A easy-to-read digital type ammeter/voltmeter is adopted for the pump performance inspection. Pressure and compound gauges with a large diameter of  $\phi$ 100 are equipped as a standard feature.
- All of the instruments can be inspected from a single side (panel side).

### KTK-C type Compact type

#### Standard specifications

Motor (continuous rating: S2)	Impeller	Bronze
	Shaft	SUS304 or SUS420J2Q
	Casing	Cast iron
	Туре	TEFC indoor (5.5, 7.5 kW model : outdoor)
	Phase/Poles	Three phase/2 pole

### KTGF·KTGDF type

#### Standard specifications

	Impeller	Bronze
Materials	Shaft	SUS420J2 or SUS403
	Casing	Cast iron • Ductile cast iron (KTGDF)
Motor	Туре	TEFC indoor
	Phase/Poles	Three phase/4 pole

### KTY type

#### Standard specifications

	Materials  Motor	Impeller	Bronze
		Shaft	SUS403
		Casing	Cast iron
		Туре	TEFC indoor
IVIOTOI	Phase/Poles	Three phase/4 pole	

### KTU(2) type Submersible type

#### Standard specifications

Materials	Impeller	SCS13 (80φ : Bronze)
	Shaft	SUS403
	Casing	Suction: SUS304 Discharge: SCS13
Motor	Туре	Canned submersible motor
	Phase/Poles	Three phase/2 pole

### **Energy-saving inverter**

### Stainless steel











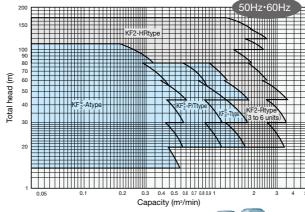
### KF type







#### Selection chart



Sister models Vertical type for high head Rotary operation. KVF-G type

- By pump section's high efficiency design and IE5 equivalent PM motor, the KFE type realized top class total efficiency in the industry.
- By optimally controlling the pump speed according to the changes in working water rate with the inverter, constant estimated terminal pressure water supply with little fluctuation at the water supply terminal is possible, and maximum of 40% energy saving operation. (Kawamoto reducing valve type constant discharge rate water supply comparison)
- The pump casing and flanges are made from precision cast stainless steel to withstand heavy load and free from strain. The connection section is mainly made of stainless steel, and resin, and the Bronze components prevents the formation of red water.
- All models are equipped with a low-noise totally-enclosed motor as a standard. Highly Resistant to insulation deterioration due to dust and moisture and has a long machine life.
- The soft stop method is adopted for the inverter, eliminating the sound of the magnet tripping, and enabling quiet water supply.
- Each pump has a high power factor device with standard DC reactor, which helps energy saving and controls the generation of high harmonics. Countermeasures against noise are also provided with a surge absorber and

### KFE-A • P • T type Alternate, alternate/parallel, 3-unit rotary

#### Standard specifications

Control method		Constant estimated terminal pressure by frequency
		control (Discharge rate can also be controlled)
Operation	method	Alternate, alternate/parallel, 3-unit rotary
Liquid		Clean water 0~40°C (no freezing)
Suction co	ndition	0 to 5m of flow or up to -6 of suction total head
	pump	Stainless steel multi-stage turbine pump
Materials	Impeller	Resin or Stainless steel
iviateriais	Shaft	SUS304 (portion contacting liquid)
	Casing	SCS13
	Туре	TEFC indoor
Motor		Poles: 4 or 8 (max. speed: 4,500min <sup>-1</sup> )
IVIOLOI	Phase	Three phase
	Efficiency	Super premium efficiency (rank as IE5)
Installation		Indoor (0~40°C / humidity: 90%RH or less / altitude: 1,000m or less)

### KF2-A·P·T·R type Rotary operation

#### Standard specifications

Control method		Constant estimated terminal pressure by frequency
		control (Discharge rate can also be controlled)
Operation	method	Alternate, alternate/parallel, rotary unit (MAX. 6 units)
Liquid		Clean water 0~40°C (no freezing)
Suction co	ondition	0 to 5 m of flow or within -6 m of suction total head
	pump	Stainless steel multi-stage turbine pump
Materials	Impeller	Resin or SCS13 or Bronze
Materials	Shaft	SUS304 (portion contacting liquid)
	Casing	SCS13
	Туре	TEFC indoor
Motor		Poles: 2 (Max. frequency in case automatic operation: 60Hz)
MOTOL	Phase	Three phase
	Efficiency	premium efficiency (IE3)*
Installation		Indoor (0~40°C / humidity: 90%RH or less / altitude: 1,000m or less)
* Three phase 0.7513W as more in a signed with a Description of finite as more		

<sup>\*</sup> Three phase 0.75kW or more is equipped with a Premium efficiency motor

### **KF2-HR** type Rotary operation

Standard specifications		
ethod	Constant estimated terminal pressure by frequency	
etilou	control (Discharge rate can also be controlled)	
method	Alternate, alternate/parallel, rotary unit (MAX. 6 units)	
	Clean water 0~40°C (no freezing)	
ndition	0 to 5 m of flow (*1) or within -6 m of suction total head (*2)	
pump	Stainless steel multi-stage turbine pump	
Impeller	Bronze	
Shaft	SUS304 (portion contacting liquid)	
Casing	SCS13	
Туре	TEFC indoor	
	2 pole	
Phase	Three phase	
Efficiency	premium efficiency (IE3)	
n	Indoor (0~40°C / humidity: 90%RH or less / altitude: 1,000m or less)	
	method method modition pump Impeller Shaft Casing Type Phase Efficiency	

- (\*1) Please consult in case back pressure exceed 5m or more.
- (\*2) Suction actual head within -4m, 11 or 15kW model: suction total head within -4m
- Note) Please consult Kawamoto to use long-hours with small amount of water.

### **Energy-saving inverter**















### Pumper USF USFE type USF2 type

For Deep well Submersible / Clean water submerged Pump \*Applicable Pump US(N)2 type · KUR<sub>3</sub><sup>2</sup> type

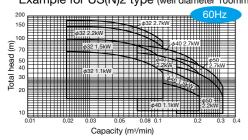
### **Pumper LF**

LFE type LF type

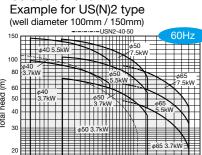
#### For Surface pump

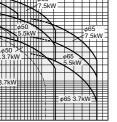
\*Applicable Pump GS3-C type · KR<sub>5</sub> -C type · GE-C type · TVS type · KS type, etc.

USFE type Connection type pump selection chart Example for US(N)2 type (well diameter 100mm)



#### ■ USFE type Connection type pump selection chart







### Pumper KUF type

### Submersible clean water pump



#### Features

- Constant estimated terminal pressure water supply is possible by combining the stainless steel submerged turbine pump and inverter automatic operation unit.
- Clean water supply is ensured with mainly stainless steel units.
- The installation space is small compared to the pressure tank method,

#### Standard specifications

Control method	Constant estimated terminal pressure
Operation method	Alternate/Parallel
Liquid	Clean water 0~40°C
Phase	Three phase
Installation (unit part)	Indoor (0~40°C/humidity: 90%RH or less /altitude: 1,000m or less)

<sup>\*</sup>Please refer to KUR3 type (P.11) for pump material.

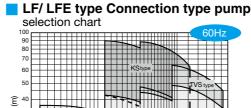
#### Features

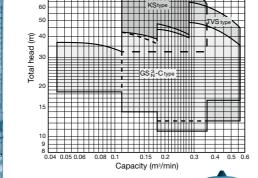
- By optimally controlling the pump speed according to the changes in working water rate with the inverter, constant estimated terminal pressure water supply with little fluctuation at the water supply terminal is possible regardless of fluctuation in the well water level.
- The pump section and over ground automatic operation unit are both made mainly of stainless steel and resin and rubber. This enables clean water supply.
- The automatic operation unit has a compact design, smaller and lighter than the conventional pressure tank type enabling easy installation.

#### Standard specifications

\*Use 60Hz products for pumps to connect to.

Control method	Constant estimated terminal pressure
Operation method	Individual
	USFE, 2 type 0~35°C, LF/LFE 0~40°C
Liquid	(Refer to the fluid temperature of the connecting pump)
Phase	Three phase
Installation (unit part)	Indoor/Outdoor (0~40°C/humidity: 90% RH or less/altitude: 1,000m or less) *USF2/LF: Indoor









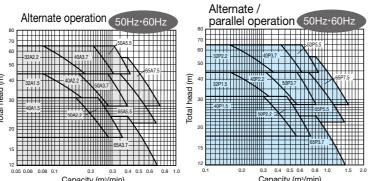
US2 type pump



KS type

#### Selection chart

(Value in the chart shows the suction bore and Motor output: kW of pump)



### **Energy-saving inverter**







#### Sister models With signal output NFS2 type Hot water pressurization pump unit **NFH2** type 150∼750W

#### **Soft KAWA ACE**

#### Features

- Switch between E (ecological) mode and S (Strong) mode is possible by the operation mode switch. (Exclude NFK2)
- Quiet, highly energy-saving operation is possible with the constant discharge rate pressure control by the inverter.
- Stainless steel and bronze materials are adopted for portion contacting water, thus preventing pump from rusting and red discolorment of water
- Noise and high frequency countermeasures are equipped as a standard

#### Standard specifications

Control method		Constant discharge rate pressure water supply (constant estimated terminal pressure is possible with alternate, parallel/alternate models)					
Operation	method	Single, Alternate, Alternate/Parallel					
Liquid		Clean water 0~40°C(no freezing)					
Suction total head		-8m(up to -6 in alternate, alternate/parallel models)to 5m flow in					
	Pump	Cascade pump					
	Impeller	Bronze					
Materials	Shaft	SUS304 (portion contacting liquid)					
	Casing	SCS13					
Motor	Туре	Kawamoto PM motor (TEFC indoor) 4 poles					
Installation		Indoor/Outdoor (altitude: 1,000m or less)					



### UF(L) 2type

#### **KAWA ACE DEEPER**

#### Features

- Highly energy-saving water supply is possible with inverter control.
- Surge resistance and noise resistance are improved by modifying the electric parts assembly section and using a 4-core submerged cable • Sanitary and clean due to stainless material are used for main parts of pump
- and automatic operation unit. • The pump section is resistant to sand and has a long life by incorporating Sic
- bearings, and rubber seal liner ring, etc.
- Constant discharge rate water supply is possible without being affected by fluctuations in the well water level. When installed in a shallow well, a regulator is not required.

#### Standard specifications

Control method		Water supply with constant discharge pressure					
Liquid C		Clean water 0~25°C (no freezing, sand content 50mg/L or less)					
	Impeller	Resin+SUS304 (UFL2 type: SCS13)					
Materials	Shaft	SUS304					
Materials	Casing	Suction casing: SCS13, Discharge casing: SCS13, Stage casing: SUS304+Resin					
Matar	Туре	Canned submersible motor					
MOTOL	Phase	Three phase					
Installation		Indoor/Outdoor (pump: under water)					
Motor Phase		Canned submersible motor Three phase					



### **UFE** type

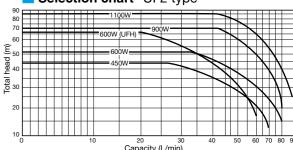
#### **KAWA ACE DEEPER**

#### Features

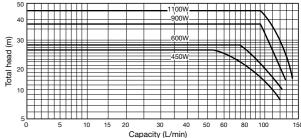
- This economical pump has a capacity approximately double the capacity of a jet pump.
- The wet sections of the pump and automatic operation unit are made of rust resistant
- Precision cast stainless steel, thick stainless steel, wear resistance resin, rubber and Sic bearings are incorporated in the pump which is strong against sand.
- The water pressure is maintained at a constant level by inverter control. 42 to 69% energy saving can be anticipated compared to the non-inverter jet pump. (Kawamoto comparison)

# When operating alternately/in parallel (-6 m of suction head) When operating as a single unit (-8 m of suction head) When operating as a single unit When operating alternately/in paralle Capacity (L/min) Alternate/Parallel

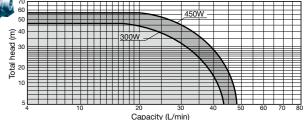
#### Selection chart UF2 type



#### Selection chart UF(L)2 type



#### Selection chart



15

### **Energy-saving inverter**

















3 types of jet set

supporting a wide range of well size.

Well bore φ75 or more well bore φ50 exclusive



#### Features

- By optimally controlling the pump speed according to the changes in working water rate with the inverter, constant estimated terminal pressure water supply with little with little fluctuation at the water supply terminal is possible regardless of fluctuation in the well water level.
- The wet sections of the pump and over ground automatic operation unit are both made mainly of stainless steel and resin and rubber. This enables clean water supply.
- The automatic operation unit has a compact design, smaller and lighter than the conventional pressure tank type enabling easy installation.

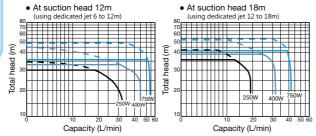
#### ■ JF type Standard specifications

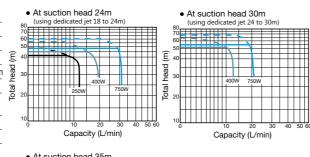
Control method		Water supply with constant discharge pressure with inverter.					
Operation	method	Single					
Liquid		Clean water 0~40°C (no freezing)					
	Deep well	Suction total head: (single operation) -12m · -18m · -24m · -30m · -35					
Suction	Shallow well	Suction total head: -7m (single operation)					
condition	For receiver tank	Suction total head: -1m~In flow pressure within 5m					
	Impeller	SCS13 or SUS304					
Materials	Shaft	SUS304 (portion contacting liquid)					
	Casing	SCS13					
	Туре	Kawamoto PM motor TEFC indoor (250W~750W)					
Motor	Phase/	Single phase100V (250W · 400W)					
	Voltage	Single phase 200V, Three phase 200V (400W · 750W) (*)					
Installatio	n	Indoor/Outdoor (altitude: 1,000m or less)					
*1100 / 150	014/	alan availahla. Dianna innuisa fan datail					

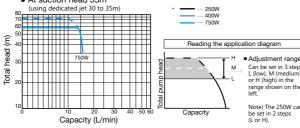
<sup>\*1100 / 1500</sup>W products are also available. Please inquire for detail



#### Selection chart (JF type)







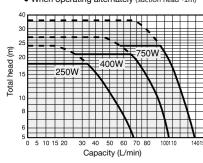
#### \*For shallow well applications, please inquire

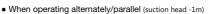
#### ■ JF-A.P type Standard specifications

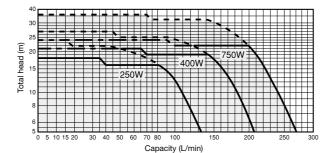
Control method		Water supply with constant discharge pressure with inverter.						
Operation method		Alternate/Parallel						
Liquid		Clean water 0~40°C (no freezing)						
Suction	Shallow well	Suction total head: -7 of suction total head						
condition	For receiver tank	Suction total head: -1m~In flow pressure within 5m						
	Impeller	SCS13						
Materials	Shaft	SUS304 (portion contacting liquid)						
	Casing	SCS13						
	Туре	Kawamoto PM motor TEFC indoor						
Motor	Phase/	Single phase100V (250W · 400W)						
	Voltage	Single phase200V · Three phase200V (400W · 750W)						
Installation		Indoor/Outdoor (altitude: 1,000m or less)						

#### Selection chart (JF-A.P type)

• When operating alternately (suction head -1m)







JF-A.P type

### **Small booster pump unit**







### NR·N3-N type

#### **KAWA ACE**



#### Features

- NR type is a clean stainless steel casing. · Long-life and reliability improved by incorporating totally-closed motor.
- A stable water supply is anticipated with constant pressure water supply having both the pressure switch and the flow rate switch.
- Long-life by making no contact parts of electric

#### Standard specifications

(NR model: 250W or less, N3-Nmodel: 400W or more) Constant pressure water supply Clean water 0~40°C Bronze Impeller Shaft SUS304 (portion contacting liquid) Materials Casing NR type: SCS13 N3-N type: Cast iron Type TEFC indoor Single phase 100V (130, 150, 200, 250, Motor Phase/ 400W) Single phase 220V (250, 400, 750W) Voltage Three phase 200V (200~750W) 50Hz: 3,000min Speed 60Hz: 3,600min

Indoor/Outdoor

# • In case shallow well use

Selection chart

• In case receiver tank use

Capacity (L/min) NR type N3-N type

### Hot water auxiliary boosting equipment

Installation











### SFR(W)·SFRH(W) type



#### Standard specifications

<b>—</b> • • • • • • • • • • • • • • • • • • •	aa. a opco						
Control method		Water supply with constant discharge pressure with inverter.					
Liquid		Clean water $0\sim45^{\circ}$ C (SFR (W)), Clean water $0\sim90^{\circ}$ C (SFRH (W) [Clean water] : pH5.8 $\sim$ 8.6 chloride ion concentration 200mg/L or les					
	Impeller	Resin					
Materials	Shaft	Aluminum Ceramics					
	Casing	SCS13					
Motor	Туре	DC brush-less motor (TEFC indoor)					
	Phase/Voltage	Single phase100V (50Hz/60Hz)					
Installation		Indoor/Outdoor					
		(Ambient temperature: -10~40°C · Humidity: 90%RH or less					

Selection chart

#### Features

- Direct installation to the pipes is possible by Japan water works association certification.
- Possible to install in desired places, compact and light weight, super slim pump unit.
- Optimally controls with inverter and high efficient motor, which reduces power
- First in industry to realize constant discharge rate control in inverter be sealless pump.
- Rust free by using high quality stainless steel and PPS, and sealless enables no leak and sanitary purposes. A sealless structure without a mechanical seal facilitates maintenance





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cation	S				Cap	acity	y (L/	min)						

### NFD(N)2 type

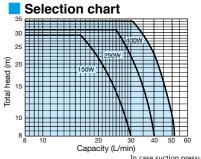


### Ctandard aposition

Star	ıdard sp	ecifications
Control m	ethod	Water supply with constant discharge pressure with inverter.
Liquid		Clean water 0~40°C (no freezing)
	Impeller	Bronze
Materials	Shaft	SUS304 (portion contacting liquid)
	Casing	SCS13
	Туре	Kawamoto PM motor (TEFC indoor) 4 poles
	Phase/ Voltage	Single phase 100V (150W~400W)
Motor		Single phase 200V (400W)
		Three phase 200V (400W)
Installatio	n	Indoor/Outdoor (altitude: 1,000m or less)
		·

#### Features

- Direct installation to the pipes is possible by Japan water works association certification
- NFD (N) 2 type (bore 13mm) are compatible with the common retracting pipe of bore 13mm. It can also be a junction from retracting pipe of bore 20mm
- Reservoir is not required and fresh water supply is possible.
- Water supply from the main pipe is possible through check valve for by-pass in the case when suction pressure being higher than the pump's startup pressure or unexpected shutdown. <By-pass system>
- Noise and high frequency countermeasures are equipped as a standard with the noise filter and
- In addition to overload/restraint protection, a freezing prevention function that forcibly operates the pump by temperature detection sensor is equipped. This does not require a heater.



In case suction pressure: 0.05MPa.

### **Hand Pump**

### Stainless steel hand pump • For artesian/driven well water supply and emergency use. HDS-25 type HDS40(L) type 380mL/Stroke 1400mL/Stroke Lift up to 15m, suction -8m. Lift up to 10m, suction -7m. (-3.5m) \*Inside the ( ) are HDS40L type. GOOD DESIGN

### **Kawamoto's Pump Series for equipment**

### Stainless steel compact booster pump unit

### NFG2(-A·P) type

#### Features

- First in industry Automatic water supply unit for "Demineralized water"
- The wet sections are made of material such as stainless steel, resin, and

NFG2 type Bore 20~32mm Output 150~750W



### JFG type

Production Pure water Electrolysis water equipment, etc..

JFG type (Water volume type) Bore 32mm Output 250~750W



AWARD 2014

### Coolant Pump RC<sup>n</sup> type

- Incorporating FCD500 for casing material realized a strong wear-resistant
- Mechanical sealless structure prevents fluid from scattering by mechanical seal fracture.

RC type Bore 40mm (65mm) Output 0.75~3.0kW (1.5~2.2kW) \* ( ) shows RCJ type





### **Vortex Blower RA type**

#### Features

- Fine curved impeller equipped as a standard. Compared to straight impeller, the air volume rises 5%
- Designed in special rib form, which enables low noise.

RA type Output 0.75~3.7kW



### Water supply equipment / Small regional drinking water unit

### Stainless steel & Variable speed control booster unit Refer to (P.14) Energy-saving inverter

### KFE-A⋅P type €

#### Features

• High energy-saving, PM motor equivalent to IE5 is equipped.

Bore 32~65mm Output 1.1~7.5kW



### KF2-A·P type

#### Features

• Energy-saving and quiet operation Clean, constant estimated terminal pressure high quality water supply

Bore 32mm Output 0.4~0.75kW



### KF<sub>2</sub>-T type €

#### Features

 Compact 3-unit multiple control rotary.

Bore 32~65mm Output 0.75~7.5kW



### KF2-R type

#### Features

• Up to 6 rotary pumps can be controlled to handle large water

Bore 32~65mm Output 0.75~7.5kW

Features



### KF2-H type

#### Features

• This is the KF series high pressure type. Water can be supplied in high-rise buildings with a total head of 170m.

Bore 40~50mm Output 7.5~15kW



### KVF-G type

• This is the high pump head type. Water can be supplied to high-rise buildings with total head of 250m Up to 6 rotary pumps can be controlled.

Bore 50~65mm Output 11~30kW



### Direct water supply booster pump unit

#### Certificated products by Japan Water Works Association WWA Energy-saving inverter

### NDP2-G type

#### Features

• Compact, light weight, and easy to install.

Bore 20~25mm Output 0.4~1.1kW



### KDP3 type ALL STAINLESS

#### Features

• The pressure from the main water supply pipe is used for easy and waste-less direct-coupled water supply

Bore 32~50mm Output 0.75~7.5kW

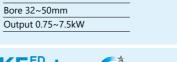


### KDP3-W type ALL STAINLESS

### W counter flow prevention type

Features • Inspection of back flow prevention device is

Output 0.75~7.5kW



possible without suspending the water supply

#### SDP-R type ALL STAINLESS For 80mm intensified

### Features

• Less output operation by 3 rotary controls realized further energy-saving operation.

Bore 80mm Output 2.2~7.5kW



#### Features

• With the 2 inverter control with built-in microcomputer, quiet operation with low pressure fluctuation and high energy-saving water supply is possible

Bore 25~50mm Output 0.75~7.5kW



### KFED-R type

#### Features

• For 80mm Intensified water supply equipment. • Back-flow prevention device is attached for

3 rotary controls

Bore 80mm Output 2.2~3.7kW



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### Special purpose / Sea water pump series

### Water seal vacuum pump unit

#### **DW2** type Features

- Auto running vacuum pump with pump, control panel, reservoir, and water level gauge.
- The material is resistant to rust and best for sea water pump's water intake assist.

Bore 25mm Output 0.75kW Reservoir Effective Capacity 60L



### Self-priming automatic booster pump

#### **GSZB2** type Features

• The industry's first self priming type sea water supply unit which reduces the equipment costs and use the space effectively.
For processing plant's cleaning and various sea water supply

Bore 40mm Output 1.5kW, 2.2kW Suction -6m



### Constant pressure automatic booster pump

#### **KZB** type Features

• Automatic water supply unit for constant pressure sea water supply. Use this for fishing ports and fish market processing plants for washing water and sea water supply.

Bore 40~50mm Output 0.75~2.2kW

Flow 0~5m



### Self-priming plastic pump Refer to (P.4)

### GSP 4 type Features

- Self-priming pump construction does not require foot valve and makes priming works easier.
- High lifting performance is realized with high efficiency design.

Bore 40, 50×40, 80×65mm Output 0.4~3.7kW



#### Titanium submersible pump

### WUZ<sub>3</sub><sup>2</sup>-G type

• Titanium is used for the metal section Resin is used for the pump sections of this corrosion resistant, light weight drain pump.

Bore 32~80mm

Output 0.15~3.7kW



### Features

### For hot water (hot spring) pump series

Stainless steel submersible clean water pump

### KURH<sub>3</sub><sup>2</sup> type

#### Features

• In water tank installation pump Temperature 0~60°C Bore 32~50mm Output 1.9~7.5kW

#### **Energy-saving inverter**

Stainless steel household automatic water supply pu



• For hot water pressurizing. User to pressurize hot water from boilers or solar-powered water heaters, etc.

Temperature hot water 85°C (alternate / parallel type: 70°C) Bore 20~32mm

Output 150~750W



### Stainless steel hot water booster uni

#### **Energy-saving inverter**

### KFEH type

#### Features

• Super energy-saving. Hot water booster unit.

Temperature Clean water 0~85°C Bore 40~50mm Output 1.5~3.7kW



### Stainless steel submersible hot spring pump Refer to (P.12) **USM(H)** type

### Features

Output 1.5~22kW

• Adoption of hot water motor exclusive for hot spring. Available for a maximum water depth of 350 m and a maximum pump head height of 340 m

Hot water temperature 90°C or less (80°C in some models) (70°C in USM type) Bore 32~65mm



Model	Installation	Motor	Liquid quality	Temperature	Shaft sealing *1	Phase	Impeller *2	Shaft *2	Casing *2
Centrifugal / Mu	ultistage pump				Ĭ				
SN(2)-C type	Indoor / Outdoor	TEFC outdoor	Clean water	0~45°C	М	1 or 3	Bronze	SUS304 or SUS403	Cast iron with Nylon coating
S type	Indoor	TEFC indoor	Clean water agricultural water	0~40°C	G or M	1 or 3	Cast iron	SUS403	Cast iron
SO2·3-C type	Indoor	TEFC outdoor	Clean water river water	0~40°C	М	1 or 3	Bronze or SCS13 or Resin	SUS304	Cast iron
E-C type	Indoor	TEFC outdoor	Clean water	0~90°C	М	3	Bronze or Cast iron	SUS304	Cast iron
(VS type	Indoor (Outdoor)	TEFC indoor or TEFC outdoor	Clean water	0~90°C	М	3	SCS13 or SUS304	SUS316	SCS13
GE-2M type	Indoor	TEFC indoor	Clean water	0~90°C	G or M	3	Cast iron or Bronze	SUS403	Cast iron
(R4·5-C type	Indoor	TEFC indoor	Clean water	0~40°C	М	3	Bronze or SCS13 or Resin	SUS304	SCS13
GES-4M type	Indoor	TEFC indoor	Clean water	0~90°C	G or M	3	SCS14	SUS316	SCS13
GRM type	Indoor	TEFC indoor	ask	0.0000	S	3	SCS14	SUS316	SCS14
PE(2) type	Indoor / Outdoor	TEFC outdoor	Clean water	0~90°C	M		SCS13	SUS304	Cast iron
PSS(2) type	Indoor / Outdoor		Clean water	0~90°C	М		SCS13	SUS304	SCS13
(N) type	Indoor	TEFC indoor	Clean water	0~40°C	G	3	Bronze	SUS403	Cast iron
VS type	Indoor	TEFC indoor	Clean water	0~40°C	G	3	Cast iron	SUS403	Cast iron
S type	Indoor	TEFC indoor	Clean water	0~40°C	G	3	Cast iron	SUS403	Cast iron
Cascade / Oil p	Indoor	ODP or TEFC	Clean water	0. 40°0	NA.	1 or 2	Bronze	CHC3UV or CHC4U3	Cast iron
CS(2)-C type			Clean water Kerosene, light oil,	0~40°C	M			SUS304 or SUS403	
OC(K) type	Indoor	TEFC indoor	A type heavy oil	0~60°C	М	3	Bronze	SUS403	Cast iron
Fire fighting pu	mp								
(TK-C type	Indoor	TEFC indoor	Clean water	0~40°C	М	3	Bronze	SUS304 or	Cast iron
(TY type	Indoor	TEFC indoor	Clean water	0~40°C	G	3	Bronze	SUS420J2Q SUS403	Cast iron
Submersible cle			oicaii walti	U~4U U	u	J	טוטוועט	000400	odol IIVII
JS2 type	Submerged	Canned	Clean water	0~30°C		3	SCS13	SUS304 or SUS403	SCS13
(UR2·3 type	Submerged	Canned	Clean water	0~30°C	0	3	SCS13 or Bronze	SUS303 or SUS403	
Submersible Su		Garineu	Glean water	0~30 G	U		36313 01 DIVIIZE	303303 01 303403	36313
	T	Dry goolod	For Courage	0.40°C	M	1 or 3	Dooin	SUS403	Resin
VUO(3)-G type	Submerged	Dry-sealed	For Sewage	0~40°C	M				
'U3 type	Submerged	Dry-sealed	For Sewage	0~40°C	M	1 01 3	Cast iron	SUS403	Cast iron
Water supply e	quipment / Sma	ili regional drink	ang water unit				Drongo or	l I	l
(FE-A·P·T·KF2·R ype	Indoor	TEFC indoor	Clean water	0~40°C	M	1 or 3	Bronze or SCS13 or Resin	SUS304	SCS13
F2-HR type	Indoor	TEFC indoor	Clean water	0~40°C	М	3	Bronze	SUS304	SCS13
(VF-G type	Indoor	TEFC indoor	Clean water	0~40°C	M	3	SCS13	SUS316	SCS13
JSFE·USF2 type	Indoor (Outdoor)	Canned	Clean water	0~35°C		3			
_FE·LF2 type	Indoor (Outdoor)		Clean water	0~40°C		3			
(UF type	Indoor	Canned	Clean water	0~30°C		3			
Energy-saving i	nverter House	hold							
NF3 type	Indoor / Outdoor		Clean water	0~40°C	М	1 or 3	Bronze	SUS304	SCS13
IF(L)2 type	Indoor / Outdoor		Clean water	0~25°C		1 or 3	Resin with SUS304 or SCS13	SUS304	SCS13 and SUS304 + Resi
IFE type	Indoor / Outdoor	Canned	Clean water	0~25°C		1	Resin with SUS304	SUS304	SCS13 and SUS304 + Resi
IF type	Indoor / Outdoor	TEFC indoor	Clean water	0~40°C	M	1 or 3	SCS13	SUS304	SCS13
Small booster p NR type	Indoor / Outdoor	TEEC indoor	Clean water	0~40°C	M	1 or 2	Bronze	SUS304	SCS13+ Resin
I3-N type	Indoor / Outdoor		Clean water	0~40°C	M		Bronze	SUS304	Cast iron
Hot water auxili			OIGAII WALGI	U~4U U	IVI	וטוט	טוטוובט	000004	oast IIUII
FRH(W) /			Clean	0~90°C/		4	Docin	Alumina Carratia	00010
SFR(W) type IFD(N)2 type	Indoor / Outdoor		Clean water Clean water	0~45°C 0~40°C	S M	1 1 or 3	Resin Bronze	Alumina Ceramics SUS304	SCS13
Hand pump	,								<del>-</del>
IDStype				5~40°C					SCS13
Water supply e	quipment / Sma	all regional drink	king water unit						
NDP2-G type	Indoor / Outdoor		Clean water	0~40°C	М		Bronze	SUS304	SCS13
CDP3 type	Indoor / Outdoor	TEFC indoor	Clean water	0~40°C	М	1 or 3	SCS13	SUS304	SCS13
(FED·KFD2 type	Indoor	TEFC indoor	Clean water	0~40°C	M	1 or 3	Bronze or SCS13 or Resin	SUS304	SCS13
Sea water pum							SCS14	0110010	Cast iron with
SSZB2·KZB type	Indoor	TEFC outdoor	Sea water	0~40°C	М	3	(KZB: Resin)	SUS316	Nylon coating
SP3·4 type	Indoor / Outdoor	TEFC outdoor	Sea water	0~60°C	М	3	METTON® Resin	SUS316	METTON® Res
VUZ2·3 type	Submerged	Dry-sealed	Sea water Sewage	0~40°C	M	1 or 3	Resin	Titanium	Resin
For hot water (h (URH2·3 type	Submerged	Canned	Hot water	0~60°C	0	3	SCS13	SUS403	SCS13
			Simple thermal						
FEH type	Indoor	TEFC indoor	Hot water	0~85°C	M	3	Resin	SUS304	SCS13
IFH2 type	Indoor/Outdoor	TEFC indoor	Hot water	0~70°C (ask)	М		Bronze	SUS304 SUS304 or SUS403	SCS13
JSM(H) type	Submerged	Canned	ask	0~70°C (ask)		3	SCS13		

<sup>\*1</sup> In shaft sealing column, symbols show following meanings. M: Mechanical seal, G: Gland packing, S: Seal-less, O: Oil seal with filter

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<sup>\*2</sup> In material column, symbols show following meanings. SCS: Stainless Cast Steel, SCS13: equivalent to 304 stainless, SCS14 equivalent to 316 stainless.



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



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. \*We bear no responsibility when the above listed precautions are not observed.

- Matters falling under the following may not be covered by the warranty: uses which go beyond 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 (power source, foreign objects, sand etc.), non-compliance with laws and regulations or standards pertaining thereto, persons who suffer accidental or intentional damage or injury, replacement of consumable parts, defects due to resale, etc.
- Close attention is needed when rusting and corrosion/elution of metals are not permissible owing to the application or liquid. Take into account both the pump and the rest of the equipment when considering and selecting.
- Apply repair coating at an institute which supports your operating environment. Depending on the operating environment, rust may form on screw parts, processed parts with anti-rust coating, anti-rust coated parts etc. due to high humidity, condensation, getting wet etc., which may lead to unexpected damage.
- Close attention is needed in the case of circulation uses where rusting and corrosion/elution of metals are not permissible. Take into account both the pump and the rest of the equipment when considering and selecting. Unexpected damage may arise from condensation of circulating water.
- Select a product which is appropriate for your application. Inappropriate use of products may cause accidents.
- Always use this pump within the specified product specifications. Failure to do so could result in electric shock, fire, water leakage, etc.
- When using this pump for living things (fishery, fish tank, aquarium, etc.) or important equipment, always prepare a spare unit. If the pump fails, an oxygen deficiency or degradation of water quality, etc., could occur and affect the creature's life.
- If used to transport food-related items, give due consideration to the materials used. Contamination by foreign objects may
- Avoid using this product with living things that are susceptible to copper alloys. The life of the creature could be affected
- Do not connect the pump directly to water main pipes. Depending on the country It may be prohibited under the Water Supply Act. Also, water backflow may contaminate tap water.
- Carry out installation in accordance with applicable legal requirements (electrical equipment guideline, interior wiring regulations, building codes, etc.) Failure to observe this may not only violate legal requirements, but could also result in fire or electric shock, or injury caused by falls or topples.

- Observe the service life of the pump, install it in a well ventilated place free from corrosive or explosive gases, salt, moisture, water vapor, condensation etc., and avoid exposing it to wind, rain and direct sunlight. In a harsh environment, electric leakage, electric shock or fire may result from deterioration of insulation in the motor or control panel, etc.
- 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.
- Do not install in places with no drainage or places which have not been waterproofed. Water leaks may cause serious damage. \* We bear no responsibility for any damage arising from lack of drainage or waterproofing.
- Depending on the equipment, attach a filter etc. appropriate for your application on the discharge side before use, perform thorough flushing and 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.
- Install buzzers, etc., as an alarm to alert failure to be noticed. Failing to do so may result in serious accidents without noticing a failure.
- Do not attach phase-advancing capacitors to inverter equipped models. Doing so may cause fracture, abnormal heat, etc.
- When using generators in inverter equipped model, please consult our nearest sales office. Control panels(electrical component box) and generators may cause failure or fracture.
- Do not operate pumps with a specification of 50 Hz at 60 Hz. Damage may arise as a result of excess pressure or burnout of the motor etc. due to overload. Do not operate pumps with a specification of 60Hz at 50Hz. Pump performance may be reduced.
- Do not put the flammable items on the pump surroundings or inside the pump cover or control panel, or cover the pump, cable or control panel with the flammable items. Failure to observe this could overheat and result in burning.
- The Pump should never be disassembled, repaired, or modified, or the power cable should never be replaced by anyone other than a qualified repair technician. Improper repairs could result in electric shocks, fires, faults or break
- 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 distributer or our nearest sales offices

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Distributor

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For any question about pumps, please contact your nearest distributor

Name	Pump Series
No.	5302 Y ®