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

Bringing valuable "water" to you KAWAMOTO PUMP
<table>
<thead>
<tr>
<th>Centrifugal / Multistage pump</th>
<th>Cascade / Oil pump</th>
<th>Submersible clean water pump</th>
<th>Energy-saving inverter</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSNOI-C type</td>
<td>KRI-C type</td>
<td>US2 type</td>
<td>KF Series KF1-P type</td>
</tr>
<tr>
<td>GSNOI type</td>
<td>GS-C type</td>
<td>KUL type</td>
<td>KF Series KF1-T type</td>
</tr>
<tr>
<td>FS type</td>
<td>TN type</td>
<td>USAH1 type</td>
<td>KF Series KF2-R type</td>
</tr>
<tr>
<td>Fire fighting pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSNOI-C type</td>
<td>TVS type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE-C type</td>
<td>KTY type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PG20 type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KVS type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS901 type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE-2M type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV25-L type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cascade / Oil pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSNOI-C type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSNOI type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submersible clean water pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSNOI-C type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSNOI type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy-saving inverter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSNOI-C type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSNOI type</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**List of model**

**Centrifugal / Multistage pump**
- GSNOI-C type
- GSNOI type
- FS type
- TVS type
- KTY type
- PG20 type
- KVS type
- PS901 type
- GE-2M type
- PV25-L type

**Cascade / Oil pump**
- KRI-C type
- GS-C type
- TN type

**Submersible clean water pump**
- US2 type
- KUL type
- USAH1 type

**Energy-saving inverter**
- KF Series KF1-P type
- KF Series KF1-T type
- KF Series KF2-R type

**Water supply equipment / Small regional drinking water unit**
- JF3 type
- JFL3 type

**Energy-saving auxiliary boosting equipment**
- KFF type
- JF type

**For hot water (hot spring) pump series**
- GSZB2 type
- KURH type
- KFED-R type

**Hot water auxiliary boosting household**
- JF3 type
- JFL3 type

**Water supply equipment / Small regional drinking water unit**
- KFF type
- JF type

**Seawater / Special purpose**
- KFED-R type

**For hot water (hot spring) pump series**
- GSZB2 type
- KURH type
- KFED-R type

**Hand pump**
- HDS type

**Equipment pump**
- Pure water electrolysis water
- FG type

**Small booster pump unit**
- KR-N type

**Coolant Pump**
- Vortex Blower

**PA type**

The standard configuration for pump systems 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 distributor for the motor specifications.
### GSN(2)-C type Self-priming turbine pump

**Features**
- Preventing red discoloration 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 out construction

**Standard specifications**
- **Liquid**
  - Clean water 0-45˚C (no freezing)
  - PH 5.5-8.4
- **Suction total head (20˚C)**
  - 6m
- **Materials**
  - Impeller: Stainless steel
  - Shaft: SUS304 or SUS316
  - Casing: Cast iron + Nylon coating
- **Shaft sealing**
  - Mechanical seal
- **Motor**
  - Type: Three phase

**Selection chart**

### 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 priming works easier
- Mechanical seal types are also available (bore size: 50-100mm)
- Easy maintenance and inspection due to back pull out construction

**Standard specifications**
- **Phase**
  - Three phase
- **Speed**
  - 50Hz: 3,600min⁻¹
  - 60Hz: 3,600min⁻¹
- **Efficiency**
  - Premium efficiency (IE3)
- **Installation**
  - Indoor/Outdoor

### GSP3/4 type KAWA HOPE

**Features**
- Improved strength by using chemical resin material. Outdoor use allowed.
- Using stainless steel for metal material such as the shaft, which prevents corrosion and rust.
- 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**
- **Liquid**
  - Clean water 0-40˚C (no freezing)
  - PH 5.5-8.4
- **Suction total head (20˚C)**
  - 6m
- **Materials**
  - Impeller: Stainless steel
  - Shaft: SUS304 (portion contacting liquid)
- **Motor**
  - Type: Three phase

**Selection chart**

### GSO3/2-C type

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

**Standard specifications**
- **Phase**
  - Three phase
- **Speed**
  - 50Hz: 1,500min⁻¹
  - 60Hz: 1,800min⁻¹
- **Efficiency**
  - Premium efficiency (IE3)
- **Installation**
  - Indoor/Outdoor

---

*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).]
### GE-C type

**Features**
- Compact, light weight and less installation space by adoption of 2 pole electric motor
- 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 Buildings Association, Ltd. (Japan)

**Standard specifications**

<table>
<thead>
<tr>
<th>Material</th>
<th>Impeller</th>
<th>Shaft</th>
<th>Casing</th>
<th>Type</th>
<th>Phase</th>
<th>Speed</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Cast iron or Bronze</td>
<td>SUS304</td>
<td>YAFC outboard</td>
<td>YAFC</td>
<td>Three phase</td>
<td>3,600min</td>
<td>Premium efficiency</td>
</tr>
<tr>
<td>Suction total head (20°C)</td>
<td>5m (90Hz)</td>
<td>100mm (7.5kW - 5.2m)</td>
<td>80mm (5.5, 7.5kW - 5.5m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Selection chart**

![Selection chart](image)

---

### GE-2M type

**Features**
- Compact, light weight and less installation space by adoption of 2 pole electric motor
- Other than standard model (GE-2M type), Nylon coating type (GE-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**

<table>
<thead>
<tr>
<th>Material</th>
<th>Impeller</th>
<th>Shaft</th>
<th>Casing</th>
<th>Type</th>
<th>Phase</th>
<th>Speed</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Cast iron or Bronze</td>
<td>Cast iron or Bronze</td>
<td>YAFC outboard</td>
<td>YAFC</td>
<td>Three phase</td>
<td>3,600min</td>
<td>Premium efficiency</td>
</tr>
<tr>
<td>Suction total head (20°C)</td>
<td>5m (90Hz)</td>
<td>100mm (7.5kW - 5.2m)</td>
<td>80mm (5.5, 7.5kW - 5.5m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Selection chart**

![Selection chart](image)

---

### KVS type

**Features**
- 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 standardized connection feature (unit type mechanical seal cover with mechanical seal support and spacer shaft coupling) (5.5kW or more)

**Standard specifications**

<table>
<thead>
<tr>
<th>Material</th>
<th>Impeller</th>
<th>Shaft</th>
<th>Casing</th>
<th>Type</th>
<th>Phase</th>
<th>Speed</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Cast iron or Bronze</td>
<td>SUS304</td>
<td>SUS304</td>
<td>YAFC</td>
<td>Three phase</td>
<td>3,600min</td>
<td>Premium efficiency</td>
</tr>
<tr>
<td>Suction total head (20°C)</td>
<td>5m (90Hz)</td>
<td>100mm (7.5kW - 5.2m)</td>
<td>80mm (5.5, 7.5kW - 5.5m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Selection chart**

![Selection chart](image)

---

### KR5-C type

**Features**
- Stainless steel precision casting
- Quiet sound design of pump and electric motor enable pump unit operation with lower noise
- Easy maintenance and inspection due to pull out construction

**Standard specifications**

<table>
<thead>
<tr>
<th>Material</th>
<th>Impeller</th>
<th>Shaft</th>
<th>Casing</th>
<th>Type</th>
<th>Phase</th>
<th>Speed</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Cast iron or Bronze</td>
<td>Mechanical seal (Ceramic x Carbon)</td>
<td>YAFC</td>
<td>YAFC</td>
<td>Three phase</td>
<td>3,600min</td>
<td>Premium efficiency</td>
</tr>
<tr>
<td>Suction total head (20°C)</td>
<td>5m (90Hz)</td>
<td>100mm (7.5kW - 5.2m)</td>
<td>80mm (5.5, 7.5kW - 5.5m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Selection chart**

![Selection chart](image)

---

### KR5-M type

**Features**
- Stainless steel precision casting
- Quiet sound design of pump and electric motor enable pump unit operation with lower noise
- Easy maintenance and inspection due to pull out construction

**Standard specifications**

<table>
<thead>
<tr>
<th>Material</th>
<th>Impeller</th>
<th>Shaft</th>
<th>Casing</th>
<th>Type</th>
<th>Phase</th>
<th>Speed</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Cast iron or Bronze</td>
<td>YAFC</td>
<td>YAFC</td>
<td>YAFC</td>
<td>Three phase</td>
<td>3,600min</td>
<td>Premium efficiency</td>
</tr>
<tr>
<td>Suction total head (20°C)</td>
<td>5m (90Hz)</td>
<td>100mm (7.5kW - 5.2m)</td>
<td>80mm (5.5, 7.5kW - 5.5m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Selection chart**

![Selection chart](image)
### GES-4M type

#### Standard specifications
- **Liquid**: Clean water 0℃-90℃ (no freezing)
- **Suction total head (Ht)**: 6m
- **Impeller**: SC514
- **Shaft sealing**: Mechanical seal (SC + Ceramics)
- **Speed**: 3,600min⁻¹
- **Efficiency**: Premium efficiency (IE3)

#### Features
- Sanitary and clean due to stainless material are used for all parts contacting liquid
- TEFC electric motor as standard
- High pump efficiency and water pumping characteristics.

#### Sister models
- **Stainless steel**
  - **GES-2M type**
    - Bore: 40~65mm
    - 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) - TK(N) type**
  - Less installation space according to simple and compact pump construction with light weight
  - Other than standard model (T/TK), Polypropylene type (T/TKN) is also available
  - 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

---

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

#### Standard specifications
- **Liquid**: Clean water 0℃-90℃ (no freezing)
- **Suction total head (Ht)**: (Maximum 100℃; Please inquire)
- **Impeller**: SC513
- **Shaft sealing**: Mechanical seal
- **Speed**: 3,600min⁻¹
- **Efficiency**: Premium efficiency (IE3)

#### 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.

### PSS(2) type Petit Line

#### Stainless steel

### FV(D)-LC type Large water type

#### Vertical type Centrifugal Pump

#### Features
- **TVS type**
  - Bore: 40~150mm
  - Output: 1.5~75kW

- **KS type**
  - Bore: 40~80mm
  - Output: 2.2~223kW

- **TN type**
  - Bore: 40~200mm
  - Output: 1.5~132kW
Oil pump series

**CS(2) - C type**

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

- **Standard specifications**
  - **Input:** Clean water 0~40°C (no freezing)
  - **Suction total head (20°C):** 7m (Bore 20), 12~8m (Bore 32)

- **Materials**
  - Impeller: Stainless steel
  - Shaft: SUS304 or SUS403 (portion contacting liquid)
  - Casing: Cast iron

- **Motor**
  - **Type:** Three phase (55kW : 400V)
  - **Speed:** 50Hz : 3,000min⁻¹
  - **Shaft:** SUS304 or SUS403
  - **Casing:** SCS13 (32 and 25mm bores are middle casing)

- **Sister models**
  - CS2 type: Bore 25~50mm Motor: 2.2~2.5kW
  - CS3 type (Only 60Hz): Bore 30~55mm Motor: 0.2~0.4kW

**OC(K) - OCH type**

- **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 standard.
  - 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.
  - OCH-T type, a service tank installed unit, is also available.

- **Standard specifications**
  - **Liquid:** Kerosene, light oil, A type heavy oil (º)
  - **Fuel oil of 45 centistokes or less:** 60°C or less
  - **Impeller:** Bronze
  - **Materials:** Shaft: SUS403, Casing: cast iron
  - **Shaft sealing:** Mechanical seal
  - **Type:** Increased safety explosion-proof type (Japan)
  - **Motor:** Three phase
  - **Speed:** 55Hz: 1,500min⁻¹, 60Hz: 1,800min⁻¹ (OC(K) type)
  - 25Hz: 3,000min⁻¹, 30Hz: 3,600min⁻¹ (OCH type)

- **Selection chart**

Submersible clean water pump series

**US2 type**

- **Features**
  - The pump section is resistant to sand, and in addition a thick precision cast stainless steel is incorporated. More-timing to sand and reliable by a new-type motor excellent in durability and lubrication.
  - The pump is stainless steel and resin. The motor section is made of stainless steel and prevents the formation of rust 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 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 (pH5.8~9.0, sand content 50mg/L or less, Chloride ion concentration 200mg/L or less)
  - **Materials:** Shaft: SUS304 or SUS403, Casing: SUS316 + resin
  - **Motor:** Three phase (35kW : 400V)
  - **Speed:** 50Hz: 1,000min⁻¹, 60Hz: 1,000min⁻¹

- **Selection chart**

**Sanrong**

- **US2 type**

- **SANRONG**

- **Selection chart**

- **Minimum well diameter 150mm**

- **Features**

- **Selection chart**

- **Submerged clean water pump series**

- **OC(K) - OCH type**

- **Oil pump series**

- **CS(2) - C type**

- **Cascade pump series**
Submersible clean water pump series

USM(H) type

**Features**
- This pump newly developed for spa use can be used with hot spa water up to 60°C for USM type, up to 90°C for USMH type (80°C for some models).
- The key components are made of precision cast stainless steel (316L) and have a long life.
- SS is used for the bearings to enhance the sand resistant design.

**Standard specifications**
- Liquid: Simple thermal, soda-lime rubber, soda-lime hydrogen carbonate pH 3 to 9 (Sand content 5mg/L or less, the sand 0.1–0.25mm or less)
- Impeller: SUS316 or SUS303
- Shaft sealing: SiC×SiC
- Motor: Three phase
- Speed: 50Hz: 3,000min⁻¹, 60Hz: 3,600min⁻¹
- Max. submersing depth: USM: within 150m, USMH: within 150m

**Sister models**
- For hot water / hot spring submersible pump: KURH type
  - Bore: 50–100mm
  - Motor: 1.5–3.7kW
- For Wastewater: WUP3-G type KAWA PET
  - Bore: 32–65mm
  - Motor: 0.15–0.75kW

Submersible Sump Pump Series

WUO (3)–G type

**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.
- Clean 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**
- *For foreign matter refers to free deforming soft matter excluding sand, etc. as defined in JISB8302.2*
- Liquid: For Sewage (pH 5–9) 0–40°C
- Impeller: Resin
- Shaft: SUS304 (portion contacting liquid)
- Casing: Resin
- Type: Dry-sealed motor
- Motor: Three phase
- Speed: 50Hz: 1,000min⁻¹, 60Hz: 1,500min⁻¹
- Max. submersing depth: 10m (5.5kW or more: 8m)

**Sister models**
- For Wastewater: WUP3-G type KAWA PET
  - Bore: 32–65mm
  - Motor: 0.15–0.75kW

BU4 type

Sewage water submersible pump

BUW type

Stainless Non-clog impeller

ZU3 type

Sewage water submersible pump

VU4 type

Sewage water submersible pump

AU4 type

Vortex with cutter submersible pump

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

**Titanium seawater submersible pump**
- WUZ2–G type KAWA HOPE
  - Bore: 50–100mm
  - Motor: 0.15–3.7kW

**Sister models**
- For hot water / hot spring submersible pump: KURH3-Y type
  - Bore: 32–65mm
  - Motor: 0.75–3.7kW

(pedestal support type)
Fire fighting pump series

Features
- By adopting a 140L pump priming tank/ 140L pressure tank and control panel adopting high functional microcomputer compatible to the new technology standard, the installation area is minimized.
- Standardized full water closed loop system is used in the pump priming tank/ fire tank/ supply tank. (Two level relays are used) (Additional automatic inspection of the fire pump can be performed by simply inspecting 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.
- The pump priming tanks provide an electrostatic type fluid level detection, enabling detection of full water/decreased water in the pump priming tank as a standard feature.
- A easy-to-read digital type ammeter/voltmeter is adopted for the pump (features).
- Motor is a 50Hz inverter type, realizing top class total efficiency in the industry.
- All of the instruments can be inspected from a single side (panel side).
- Materials (continuous rating: S2)

Selection chart

Energy-saving inverter

Features
- By pump section's high efficiency design and IES 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 conditions, the maximum power rate/actual power rate is well above 0.8% (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 stress. 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 trapping, 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 noise filter.

Selection chart

KTK-C type Compact type

Standard specifications
- Motor
  - Type: TEFC indoor
  - Three phase/4 pole
  - Cast iron

KTGФ・KTGД type

Standard specifications
- Motor
  - Type: TEFC indoor
  - Three phase/4 pole
  - Cast iron

KTY type

Standard specifications
- Motor
  - Type: TEFC indoor
  - Three phase/4 pole

KTU(2) type Submersible type

Standard specifications
- Motor
  - Type: TEFC indoor
  - Three phase/4 pole

KTY-W type Cubicle type

- Submersible motor

KTY-W type Cubicle type

- Submersible motor

KTK-G type High pump head type

Selection chart

Sister models

Vertical type for high head

KF type

- High pump head type

KFE-A・P・T type Alternate, alternate/ parallel, 3-unit rotary operation

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 to 40˚C (No freezing)
- Suction condition
  - 0 to 5m of flow or up to -6 m of suction total head
- Material
  - Shaft: Stainless steel multi-stage turbine pump
  - Shaft: Stainless steel multi-stage turbine pump
  - Shaft: Stainless steel multi-stage turbine pump
- Motor
  - Type: TEFC indoor
  - Poles: 3 or 6 (max. speed: 4500min-1)
- Efficiency
  - Super premium efficiency (NRE)*
  - Efficiency

KF2-A・P・R type Rotary operation type

Standard specifications
- Control method
  - Constant estimated terminal pressure by frequency control (Discharge rate can also be controlled).
- Operation method
  - Alternate, alternate/parallel, rotary unit (2.5 units)
- Liquid
  - Clean water 0 to 40˚C (No freezing)
- Suction condition
  - 0 to 5m of flow or up to -6 m of suction total head
- Material
  - Shaft: Stainless steel multi-stage turbine pump
  - Shaft: Stainless steel multi-stage turbine pump
  - Shaft: Stainless steel multi-stage turbine pump
- Motor
  - Type: TEFC indoor
  - Poles: 3 (Max. frequency in case automatic operation: 90%)
- Efficiency
  - Premium efficiency (IE5)*

KF2-HR 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 (2.5 units)
- Liquid
  - Clean water 0 to 40˚C (No freezing)
- Suction condition
  - 0 to 5m of flow or up to -6 m of suction total head
- Material
  - Shaft: Stainless steel multi-stage turbine pump
  - Shaft: Stainless steel multi-stage turbine pump
  - Shaft: Stainless steel multi-stage turbine pump
- Motor
  - Type: TEFC indoor
  - Poles: 3
- Efficiency
  - Efficiency

*Note: Suction bore 63mm model is different from the pump bore because a reducer is attached. (Units without pump priming tanks are excluded.)

*1 Please consult in case back pressure exceed 5m or more.
*2 Section actual head with a 140L model: 11 or 145HR model: Section actual head with a 140L model: 145
Energy-saving inverter

Pumper USF USF2 type
For Deep well Submersible / Clean water submerged Pump
Applicable Pump (USF2 type Х) type

Pumper LF LFE type
For Surface pump
Applicable Pump (USF2 type Х) type

USF type Connection type pump selection chart
Example for US(N2) type (well diameter 100mm)

Features
- Clean water supply is ensured with mainly stainless steel units.
- Constant estimated terminal pressure water supply is possible 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
  impellers.
- Surge resistance and noise resistance are improved by modifying the electric
  parts assembly section and using a 4-core submerged cable.
- Noise and high frequency countermeasures are equipped as a standard
  with the noise filter and built-in reactor.

Standard specifications
- Use SFN products for pumps to connect to.
- LF type

USF type connection type pump selection chart
Example for US(N2) type (well diameter 100mm)

Features
- Clean water supply is ensured with mainly stainless steel units.
- Constant estimated terminal pressure water supply is possible 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
  impellers.
- Surge resistance and noise resistance are improved by modifying the electric
  parts assembly section and using a 4-core submerged cable.
- Noise and high frequency countermeasures are equipped as a standard
  with the noise filter and built-in reactor.

Standard specifications
- Use SFN products for pumps to connect to.
- LF type

Pumper KUF type
Submersible clean water pump

Features
- Clean water supply is ensured with mainly stainless steel units.
- The installation space is small compared to the pressure tank method, and installation work is easy.

Standard specifications
- Use SFN products for pumps to connect to.
- LF type
Energy-saving inverter

**KAWA-ACE Jet**

**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.
- 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.

**Selection chart [JF type]**

- **Liquid**
  - Clean water
  - 0~40˚C (no freezing)

- **Materials**
  - Casing: SCS13 or SUS304
  - Impeller: SCS13
  - Shaft: Stainless steel

- **Capacity (L/min)**
  - 200W: 0~120L/min
  - 400W: 0~240L/min
  - 750W: 0~390L/min

- **Total head (m)**
  - -1m to -5m

- **Rated power**
  - 200W: 130W
  - 400W: 250W
  - 750W: 400W

**Features**
- Direct installation to the pipes is possible by Japan water works association certification.
- Mulltilateral control valve, compact and lightweight, super slim pump unit.
- Optimally controls with inverter and high efficient motor, which reduces power consumption.
- 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 hygienic sanitary purposes, and sealless enables no leak and easy maintenance.

**Standard specifications**
- **Control method**
  - Constant pressure water supply
- **Liquid**
  - Clean water 0~60˚C
- **Materials**
  - Type: TEC indoor
  - Motor: Single phase 200V (400W)
  - Single phase 200V (750W)
- **Capacity (L/min)**
  - 200W: 0~100L/min
  - 750W: 0~250L/min
  - 750W: 0~350L/min
- **Total head (m)**
  - -1m to -7m

**JF type Standard specifications**

- **Control method**
  - Water supply with constant discharge pressure with inverter
- **Operation method**
  - Alternative/Parallel operation
- **Liquid**
  - Clean water 0~60˚C (no freezing)
- **Shaft**
  - Stainless steel
- **Material**
  - Casing: SCS13 or SUS304
- **Impeller**
  - SCS13
- **Capacity (L/min)**
  - 200W: 0~120L/min
  - 400W: 0~240L/min
  - 750W: 0~390L/min
- **Total head (m)**
  - -1m to -5m

**Features**
- Optimally controls with inverter and high efficient motor, which reduces power consumption.
- 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 easy maintenance.

**Small booster pump unit**

**KAWA ACE**

**Features**
- NR type is a clean stainless steel casing.
- Long life and reliability improved by incorporating a totally-closed motor.
- 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 components.

**Selection chart NR·N3-N type**

- **Liquid**
  - Clean water 0~40˚C (no freezing)
  - Single phase 220V (750W)
  - Single phase 380~415V (750W)
  - Single phase 200V (750W)
  - Single phase 200V (750W)

- **Materials**
  - Shaft: SUS304 (portion contacting liquid)
  - Motor: Single phase 200V (400W)

- **Capacity (L/min)**
  - 400W: 0~120L/min
  - 750W: 0~240L/min
  - 750W: 0~390L/min

**Features**
- Direct installation to the pipes is possible by Japan water works association certification.
- Optimally controls with inverter and high efficient motor, which reduces power consumption.
- 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 easy maintenance.

**Standard specifications**
- **Control method**
  - Water supply with constant discharge pressure with inverter
- **Liquid**
  - Clean water 0~60˚C
  - pH 5.8~8.6
  - Chloride ion concentration 200mg/L or less
  - Total hardness 150mg/L or less
- **Materials**
  - Shaft: Stainless steel
  - Motor: Single phase 220V (750W)
- **Capacity (L/min)**
  - 250W: 0~120L/min
  - 400W: 0~240L/min
  - 750W: 0~390L/min
- **Total head (m)**
  - -1m to -5m
**Stainless steel hand pump**

**Features**
- For artesian/driven well water supply and emergency use.
- Bore: 80mm
- Stroke: 380mm
- Lift up to 15m, suction: -8m
- Lift up to 10m, suction: -7m

**Hand Pump**

**_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 fluor rubber

**JFG type**

**Pure water**
**Electrolysis water**
**Production equipment, etc...**

**Hand Pump**

**Coolant Pump RC**

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

**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.

**Hand Pump**

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

**Stainless steel & Variable speed control booster unit**

**KFE-A-P type**

**Features**
- High energy-saving, PM motor equivalent to IE5 is equipped.
- Bore: 32~65mm
- Output: 1.1~7.4kW

**KF2-A-P type**

**Features**
- Energy-saving and quiet operation. Clean, constant estimated terminal pressure high quality water supply
- Bore: 32mm
- Output: 0.4~0.7kW

**KF2-R type**

**Features**
- Up to 6 rotary pumps can be controlled to handle large water volumes.
- Bore: 32~65mm
- Output: 0.7~7.4kW

**KF2-H type**

**Features**
- This is the KF series high pressure type. Water can be supplied to high-rise buildings with a total head of 170m.
- Bore: 80~100mm
- Output: 7.5~13kW

**KVF-G type**

**Features**
- This is the high pump head type. Water can be supplied to high-rise buildings with total head of 250m.
- Bore: 50~65mm
- Output: 11~16kW

**Direct water supply booster pump unit**

**NDP2-G type**

**Features**
- Compact, light weight, and easy to install.
- Bore: 40~50mm
- Output: 0.4~1.1kW

**KDP3 type**

**Features**
- The pressure from the main water supply pipe is used for easy and waste-less direct-coupled water supply.
- Bore: 32~55mm
- Output: 0.7~3.0kW

**KDP3-R type**

**Features**
- For 80mm intensified water supply equipment.
- Inspection of back flow prevention device is possible without suspending the water supply.
- Bore: 80mm
- Output: 2.2~7.5kW

**KF6**

**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: 0.75~7.4kW

**KF6D**

**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: 0.75~7.4kW

**Energy-saving inverter**

**Hand Pump**
For hot water (hot spring) pump series

Stainless steel submersible clean water pump

KURH 3 type

- In water tank installation pump
- Temperature: 0~40°C
- Water temperature: 0~90°C
- Bore: 40~50mm
- Output: 0.75~2.2kW
- Flow: 0~5m³/h
- Bore: 40~50mm
- Output: 0.15~3.7kW

Features
- Stainless steel for corrosion resistance
- Cast iron for durability

GFS-4M type
- Indoor / Outdoor TEFC outdoor
- Clean water: 0~90°C
- Motor: G or M
- Shaft: 3
- Casing: SCS14 or SUS316

KVF-G type
- Indoor TEFC indoor
- Clean water: 0~40°C
- Motor: G
- Shaft: 3
- Casing: SCS13 or Resin

KTS-1 type
- Indoor TEFC indoor
- Clean water: 0~90°C
- Motor: 1 or 3
- Shaft: 3
- Casing: Resin

List of model

- Model
- Installation
- Motor
- Liquid quality
- Temperature
- Shaft sealing
- Phase
- Impeller
- Shaft
- Casing

- GFS-4M type
- Indoor / Outdoor
- TEFC outdoor
- Clean water
- 0~90°C
- M
- 1 or 3
- Bronze
- SUS316 or SUS420

- KVF-G type
- Indoor TEFC indoor
- Clean water
- 0~40°C
- G
- 1 or 3
- Resin
- SUS316

- KTS-1 type
- Indoor TEFC indoor
- Clean water
- 0~90°C
- M
- 1 or 3
- Resin
- SUS316 or SUS420

*1: In shaft seal column, symbols show following meanings. M: Mechanical seal, G: Gland packing, S: Seal-less, O: O seal with filter
*2: In material column, symbols show following meanings. SCS: Stainless Cast steel, SS11 equivalent to 304 stainless, SS14 equivalent to 316 stainless
**Important Safety Precautions**

- 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 corrosion may lead to pump failure, accidents etc. For periodic inspections, please consult your distributor or our nearest sales office. Control panels (electrical component box) and generators may cause failure or fracture.
- If used to transport food-related items, give due consideration to copper alloys. The life of the creature could be affected.
- 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. 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 occur.
- 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 distributor or our nearest sales office.

Specifications/configurations may be altered as a result of improvements and such. Unauthorized reproduction of this document is prohibited.

---

**Kawamoto Pump MFG. CO., LTD.**

Overseas Marketing Section
11-39, Osu 4-Chome, Naka-ku, Nagoya
460-8550, JAPAN

TEL: +81-52-251-7173   FAX: +81-52-747-5500

E-mail: kawamotob@kawamoto-ons.com

http://www.kawamoto.co.jp

For any question about pumps, please contact your nearest distributor

<table>
<thead>
<tr>
<th>Name</th>
<th>Pump Series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5302 Y</td>
</tr>
</tbody>
</table>

---