

GS series

High head magnet drive pump CHEMIFREE





300 series

- Low power consumption is achieved for motor efficiency.
- 50/60Hz in common use.
- Terminal box on the motor is adopted for easy wiring.
- Small and light design.
- Fluoro-rubber (FKM) O-ring is standard.



| Type | Model | Bore (mm) | | Standard performance (L/min. - m) | | | | Output (W) | Output (W) | Voltage (V) |
|-----------|------------|-----------|------|-----------------------------------|-----------|------------|-----------|------------|------------|-------------|
| | | Suc. | Dis. | 50Hz | | 60Hz | | | | |
| | | | | Std. spec. | Std. S.G. | Std. spec. | Std. S.G. | | | |
| 300 GS | YD-3320GS1 | 16 | 16 | 30-2 | 1.3 | 34-3 | 1.3 | 35 | 45 | 1PH/200V |
| | YD-3420GS1 | 16 | 16 | 31-3 | 1.1 | 43-3 | 1.1 | 40 | 60 | |
| | YD-3520GS1 | 20 | 20 | 40-3 | 1.2 | 40-5 | 1.2 | 65 | 100 | |
| | YD-3720GS1 | 20 | 20 | 50-4 | 1.1 | 51-6 | 1.1 | 120 | 160 | |



16/20 series

- Our original designed impeller is efficient
- Low price is achieved while enhancing durability.
- YD-GSF series (ETFE) is available for specific gravity until 1.9.
- The motor has a terminal box as standard.
- Oil seal is installed to prevent invasion by gas or mist.
- Thermal protector is incorporated to prevent overload operation.



| Type | Model | 口径 (mm) | | Standard performance (L/min. - m) | | | | Output (kW) | Voltage (V) |
|-----------------|-------------|---------|------|-----------------------------------|-----------|------------|-----------|-------------|-------------|
| | | Suc. | Dis. | 50Hz | | 60Hz | | | |
| | | | | Std. spec. | Std. S.G. | Std. spec. | Std. S.G. | | |
| GS | YD-16X8GS1 | 20 | 16 | 50- 5 | 1.1 | 6.5- 60 | 1.1 | 0.18 | 3PH/200V |
| | YD-20A6GS1 | 20 | 20 | 60- 7 | 1.4 | 70- 9.5 | 1.1 | 0.26 | 1PH/100V |
| | YD-20Y6GS1 | 20 | 20 | 60- 7 | 1.4 | 70- 9.5 | 1.1 | 0.26 | 3PH/200V |
| GS High head | YD-16Y6GSH1 | 20 | 16 | 24-12 | 1.1 | 25- 17 | 1.1 | 0.26 | 3PH/200V |
| | YD-20A6GSH1 | 20 | 20 | 70- 9.5 | 1.1 | — | — | 0.26 | 1PH/100V |
| | YD-20Y6GSH1 | 20 | 20 | 70- 9.5 | 1.1 | — | — | 0.26 | 3PH/200V |
| GSF | YD-16X8GSF1 | 20 | 16 | 60- 5 | 1.2 | 60- 5 | 1.2 | 0.18 | 3PH/200V |
| | YD-20A6GSF1 | 20 | 20 | 70- 7.5 | 1.2 | 70- 8 | 1.2 | 0.26 | 1PH/100V |
| | YD-20Y6GSF1 | 20 | 20 | 70- 7.5 | 1.2 | 70- 8 | 1.2 | 0.26 | 3PH/200V |



2500 series

- **Lineup to Bore 25A**
The bore of the pump (0.4kW~2.2kW) is 25A and it can reduce the pipe material cost.
- **It is suitable for high pressure water rinse.**
It has a good record for water rinse at the process emphasized pressure than capacity.
- **IE3 motor is the same size & weight as before.**
The size & weight is the same as before and installation condition is no object when replacement.



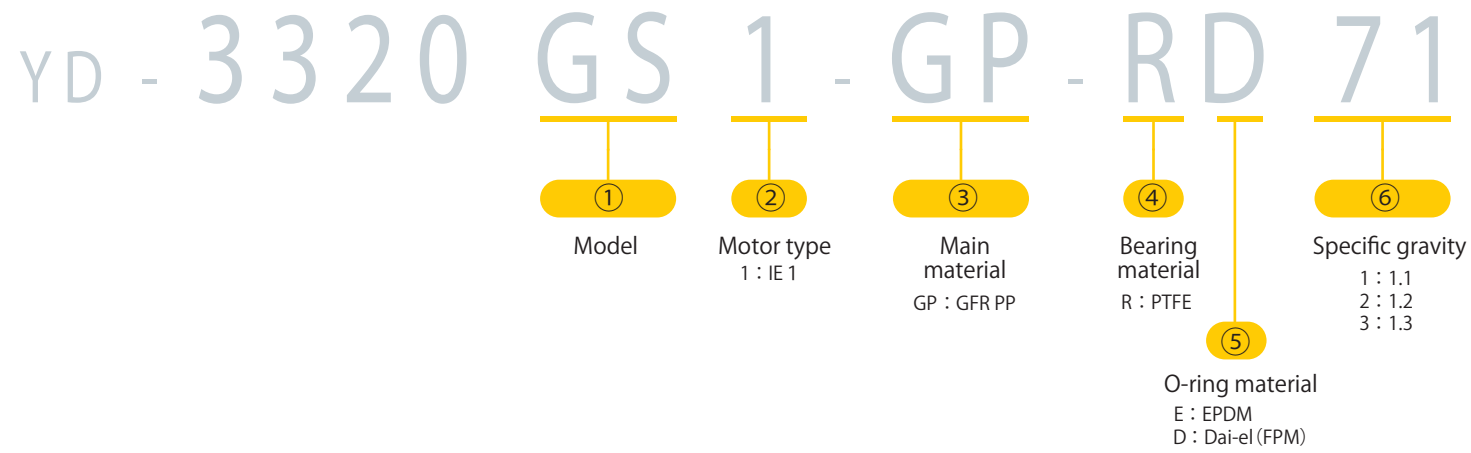
| Type | Model | Bore (mm) | | Standard performance (L/min. - m) | | | | Output (kW) | Voltage (V) |
|-------------|-------------|-----------|------|-----------------------------------|-----------|------------|-----------|-------------|-------------|
| | | Suc. | Dis. | 50Hz | | 60Hz | | | |
| | | | | Std. spec. | Std. S.G. | Std. spec. | Std. S.G. | | |
| GS | YD-2500GS1 | 25 | 25 | 50- 14 | 1.0 | 50- 14 | 1.0 | 0.4 | 3PH/200V |
| | YD-2501GS3 | | | 50- 21 | 1.0 | 50- 21.5 | 1.0 | 0.75 | 3PH/200V |
| | YD-2502GS3 | | | 50- 25.5 | 1.3 | 50- 34 | 1.0 | 1.5 | 3PH/200V |
| | YD-2503GS3 | | | — | — | 50- 37 | 1.1 | 2.2 | 3PH/200V |
| | YD-4000GS1 | 40 | 40 | 100- 11 | 1.05 | 100- 11 | 1.05 | 0.4 | 3PH/200V |
| | YD-4001GS3 | | | 150- 15 | 1.05 | 150- 15 | 1.05 | 0.75 | 3PH/200V |
| GSF | YD-4002GS3 | 50 | 40 | 200- 20 | 1.1 | 200- 19.5 | 1.1 | 1.5 | 3PH/200V |
| | YD-4003GS3 | | | 200- 25 | 1.1 | 200- 27 | 1.1 | 2.2 | 3PH/200V |
| | YD-4005GS3 | 200- 26.5 | 1.4 | 200- 36 | 1.1 | 3.7 | 3PH/200V | | |
| | YD-2500GSF1 | 25 | 25 | 50- 9 | 1.2 | 50- 9 | 1.2 | 0.4 | 3PH/200V |
| | YD-2501GSF3 | | | 50- 16.5 | 1.2 | 50- 15 | 1.2 | 0.75 | 3PH/200V |
| | YD-2502GSF3 | | | 50- 24 | 1.2 | 50- 26 | 1.2 | 1.5 | 3PH/200V |
| | YD-2503GSF3 | | | 50- 23.5 | 1.9 | 50- 33 | 1.2 | 2.2 | 3PH/200V |
| | YD-4000GSF1 | 40 | 40 | 100- 8.5 | 1.2 | 100- 9 | 1.2 | 0.4 | 3PH/200V |
| | YD-4001GSF3 | | | 150- 12 | 1.2 | 150- 11.5 | 1.2 | 0.75 | 3PH/200V |
| | YD-4002GSF3 | 50 | 40 | 200- 18 | 1.2 | 200- 17.5 | 1.2 | 1.5 | 3PH/200V |
| YD-4003GSF3 | 200- 23 | | | 1.2 | 200- 23 | 1.2 | 2.2 | 3PH/200V | |
| YD-4005GSF3 | 200- 26 | | | 1.3 | 200- 31.5 | 1.2 | 3.7 | 3PH/200V | |



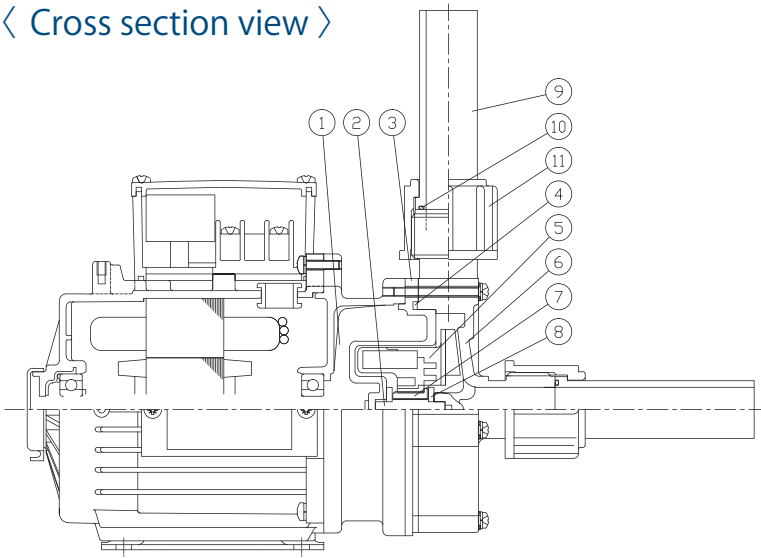
4000 series

- **Small footprint**
It is suitable for the small work space.
- **High head magnet drive pump**
It measures up to transfer from a height and high pressure.
- **IE3 motor is the same size & weight as before.**
The size & weight is the same as before and installation condition is no object when replacement.

< Model description >



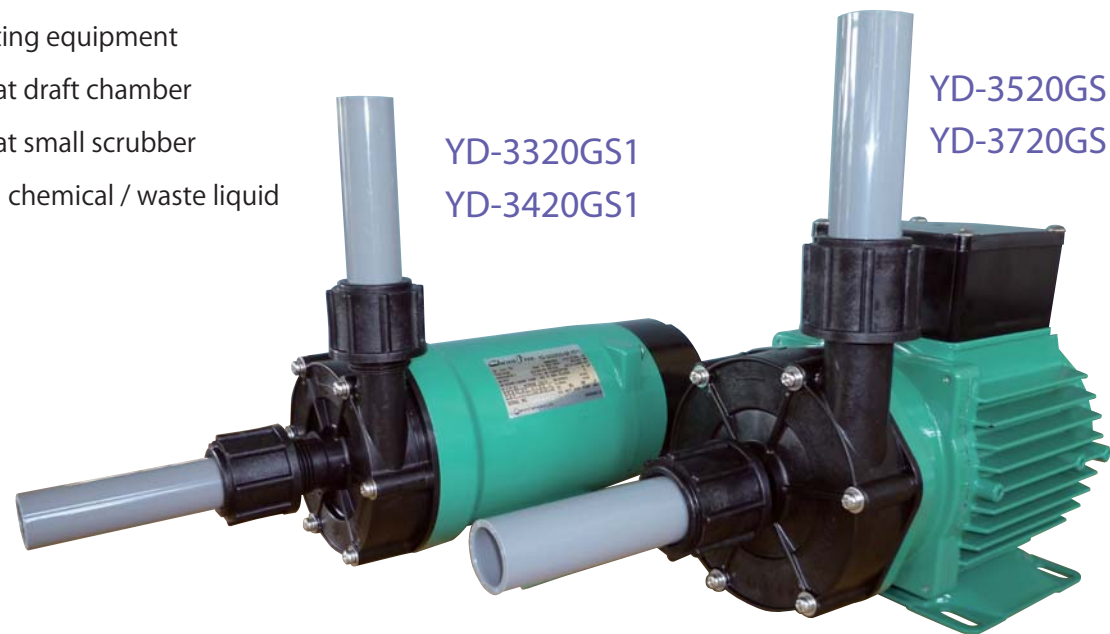
< Cross section view >



| No. | Part name | Qty | Material |
|-----|----------------|-----|------------------|
| 1 | Magnet housing | 1 | Plastic magnet |
| 2 | Shaft | 1 | Alumina ceramics |
| 3 | Back casing | 1 | GFR-PP |
| 4 | O-ring | 1 | FKM |
| 5 | Impeller | 1 | GFR-PP |
| 6 | Casing | 1 | GFR-PP |
| 7 | Bearing | 1 | PTFE |
| 8 | Bearing washer | 2 | Alumina ceramics |
| 9 | Union socket | 2 | PVC |
| 10 | O-ring | 2 | FKM |
| 11 | Union nut | 2 | GFR-PP |

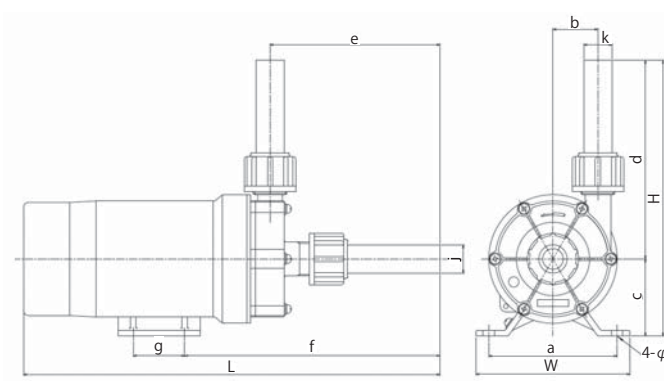
< Use >

- For rinse at plating equipment
- For circulation at draft chamber
- For circulation at small scrubber
- For transferring chemical / waste liquid

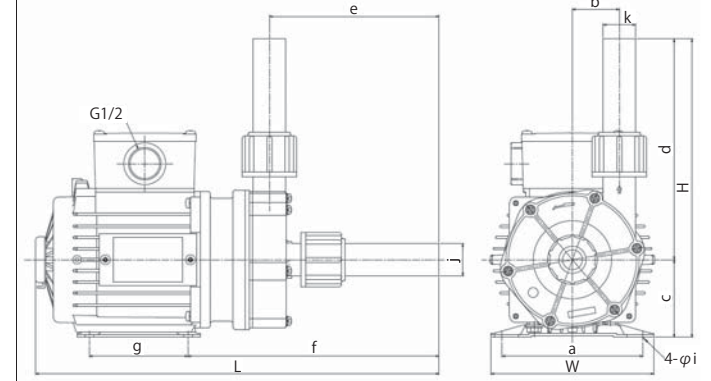


< Outline dimension >

● YD-3320GS1 / YD-3420GS1



● YD-3520GS1 / YD-3720GS1



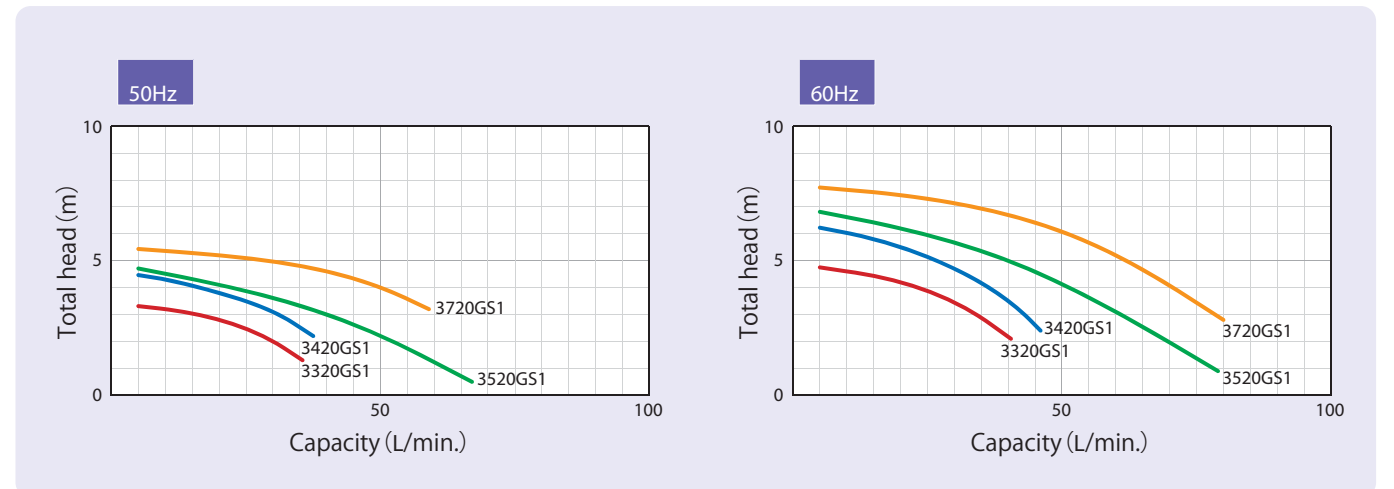
< Dimension >

| Model | W | H | L | a | b | c | d | e | f | g | i | j | k |
|------------|-----|-------|-------|---------|----|----|-------|-------|-------|----|------|-----------|-----------|
| YD-3320GS1 | 120 | 214.5 | 324.5 | 100 | 35 | 60 | 154.5 | 132.5 | 199 | 40 | 9 | 16A Union | 16A Union |
| YD-3420GS1 | | | | | | | | | | | | | |
| YD-3520GS1 | 133 | 242.5 | 327 | 100-114 | 38 | 63 | 179.5 | 137.5 | 203.5 | 80 | 7-19 | 20A Union | 20A Union |
| YD-3720GS1 | | | | | | | | | | | | | |

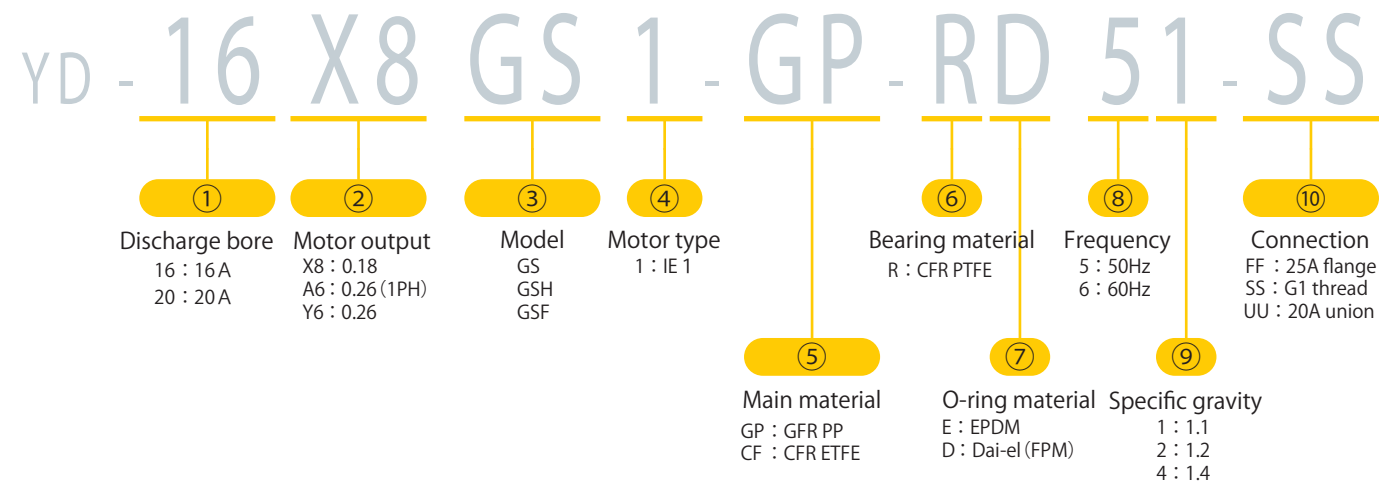
< Standard performance >

| Type | Model | Bore (mm) | | Standard performance (L/min. - m) | | | | Output (W) | | Voltage (V) | Weight (kg) |
|--------|------------|-----------|----|-----------------------------------|-----------|------------|-----------|------------|------|-------------|-------------|
| | | 吸込 | 吐出 | 50Hz | | 60Hz | | 50Hz | 60Hz | | |
| | | | | Std. spec. | Std. S.G. | Std. spec. | Std. S.G. | | | | |
| 300 GS | YD-3320GS1 | 16 | 16 | 30-2 | 1.3 | 34-3 | 1.3 | 35 | 45 | 1PH/200V | 3.4 |
| | YD-3420GS1 | 16 | 16 | 31-3 | 1.1 | 43-3 | 1.1 | 40 | 60 | | 3.4 |
| | YD-3520GS1 | 20 | 20 | 40-3 | 1.2 | 40-5 | 1.2 | 65 | 100 | | 4.8 |
| | YD-3720GS1 | 20 | 20 | 50-4 | 1.1 | 51-6 | 1.1 | 120 | 160 | | 5.4 |

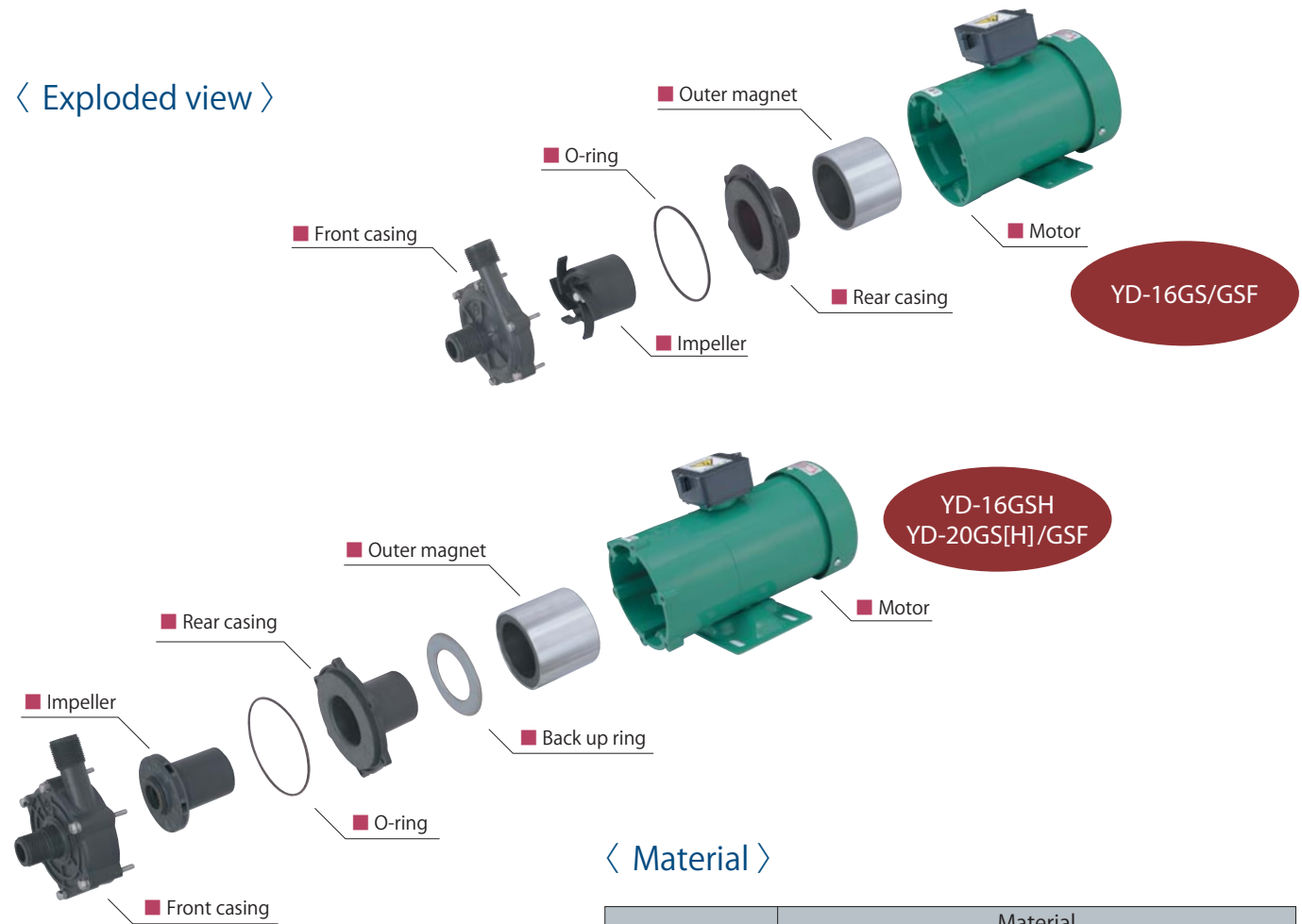
< Performance curve >



< Model description >



< Exploded view >



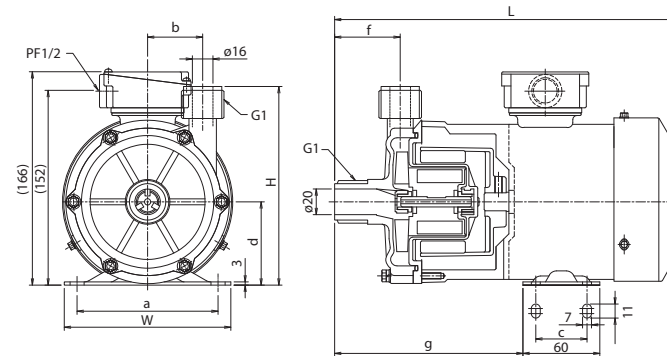
< Material >

| Part name | Material | |
|--------------|----------------------------|-------------------|
| | GS series | GSF series |
| Front casing | GFR PP | CFR ETFE |
| Impeller | (GFR) PP + Magnet | CFR ETFE + Magnet |
| Rear casing | GFR PP + GFR PPS | CFR ETFE |
| Outer magnet | Aluminum alloy + Magnet | |
| Motor | Aluminum lightweight motor | |
| O-ring | EPDM/FPM | |
| Back up ring | SPCC | |

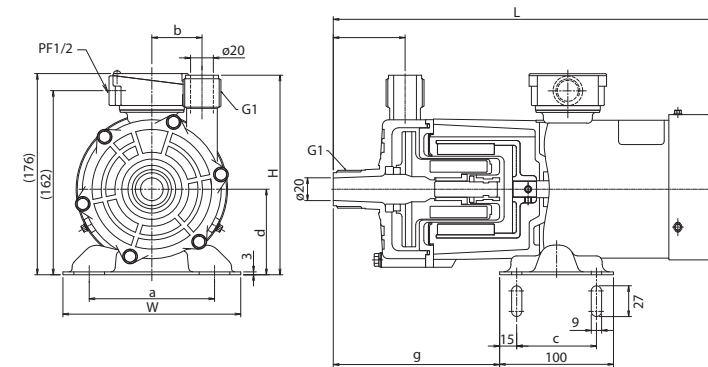
※ The exploded view is for only explanation of the structure. Parts are sold as a set. For more information, contact us.

< Outline dimension >

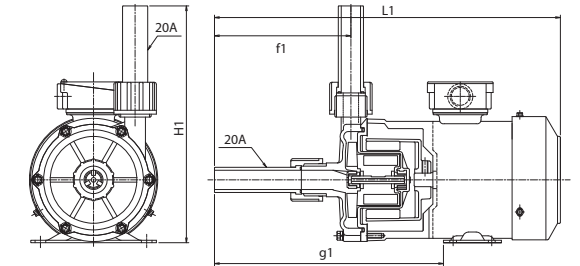
● Connection : SS type (Thread type)
YD-16GS/GSF



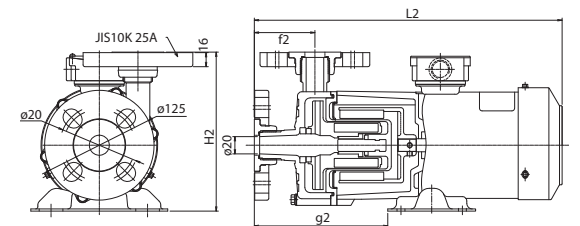
YD-16GSH/20GS(H)/20GSF



● Connection : UU type (Union type)



● Connection : FF type (Flange type)



< Dimension >

| Model | W | H | L | a | b | c | d | f | g | f1 | f2 | g1 | g2 | H1 | H2 | L1 | L2 |
|---|-----|-----|-----|-----|----|----|----|----|-----|-----|----|-----|-----|-----|-----|-----|-----|
| YD-16GS YD-16GSF | 130 | 155 | 269 | 110 | 43 | 40 | 65 | 51 | 147 | 141 | 57 | 237 | 153 | 245 | 161 | 359 | 275 |
| YD-16GSH YD-20GS YD-20GSH YD-20GSF | 156 | 175 | 346 | 110 | 44 | 70 | 75 | 63 | 146 | 153 | 69 | 236 | 152 | 265 | 181 | 436 | 352 |

Impeller

Original design with high efficiency and durability. Staple of small magnet drive pump.



- 16GS/GSF: The impeller is open type and integrated with bearing.
- 16GSH/20GS(H)/20GSF: The impeller is closed type and high efficiency.

Exclusive motor (Incorporated thermal protector)

Measures for durability.



- Terminal box is standard.
- Oil seal to prevent invasion by gas and mist.
- Thermal protector to prevent overload operation.

< Standard performance >

Small GS series (Main material : GFR PP)

| Model | Connection | Bore (mm) | | Standard performance (L/min. - m) | | | | Output (kW) | Voltage (V) | Weight (kg) |
|---------------------|------------|-----------|------|-----------------------------------|-----------|------------|-----------|-------------|-------------|-------------|
| | | Suc. | Dis. | 50Hz | | 60Hz | | | | |
| | | | | Std. spec. | Std. S.G. | Std. spec. | Std. S.G. | | | |
| YD-16X8GS1-GP-R□△○- | SS Thread | 20 | 16 | 50-5 | 1.1 | 60-6.5 | 1.1 | 0.18 | 3PH/200V | 6.2 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |
| YD-20A6GS1-GP-R□△○- | SS Thread | 20 | 20 | 60-7 | 1.4 | 70-9.5 | 1.1 | 0.26 | 1PH/100V | 8.0 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |
| YD-20Y6GS1-GP-R□△○- | SS Thread | 20 | 20 | 60-7 | 1.4 | 70-9.5 | 1.1 | 0.26 | 3PH/200V | 8.0 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |

Small GSH series (Main material : GFR PP) (High head type)

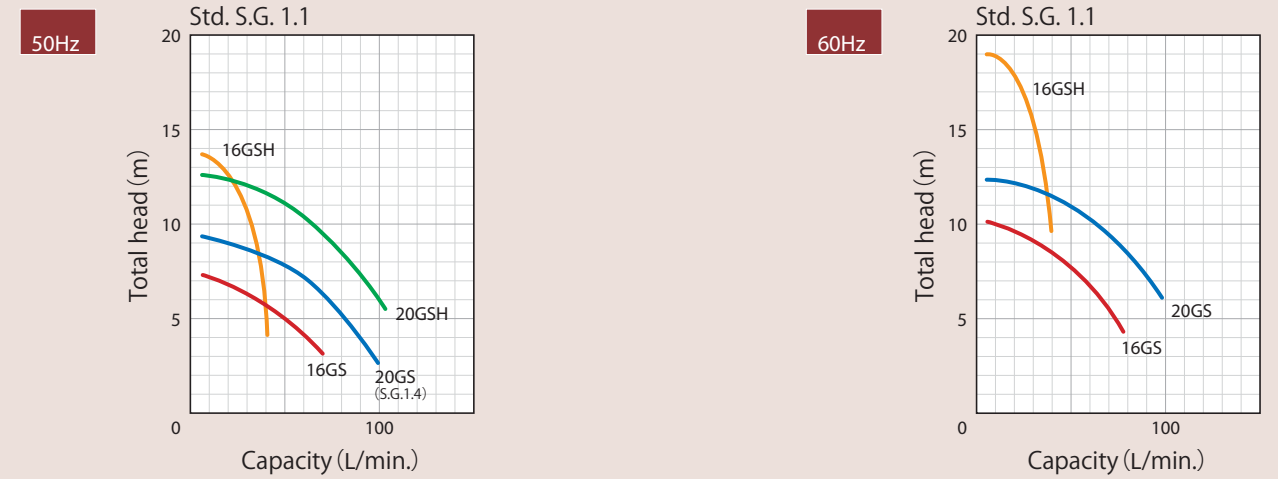
| Model | Connection | Bore (mm) | | Standard performance (L/min. - m) | | | | Output (kW) | Voltage (V) | Weight (kg) |
|----------------------|------------|-----------|------|-----------------------------------|-----------|------------|-----------|-------------|-------------|-------------|
| | | Suc. | Dis. | 50Hz | | 60Hz | | | | |
| | | | | Std. spec. | Std. S.G. | Std. spec. | Std. S.G. | | | |
| YD-16Y6GSH1-GP-R□△○- | SS Thread | 20 | 16 | 24-12 | 1.1 | 25-17 | 1.1 | 0.26 | 3PH/200V | 8.0 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |
| YD-20A6GSH1-GP-R□△○- | SS Thread | 20 | 20 | 70-9.5 | 1.1 | - | - | 0.26 | 1PH/100V | 8.0 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |
| YD-20Y6GSH1-GP-R□△○- | SS Thread | 20 | 20 | 70-9.5 | 1.1 | - | - | 0.26 | 3PH/200V | 8.0 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |

Small GSF series (Main material : CFR ETFE)

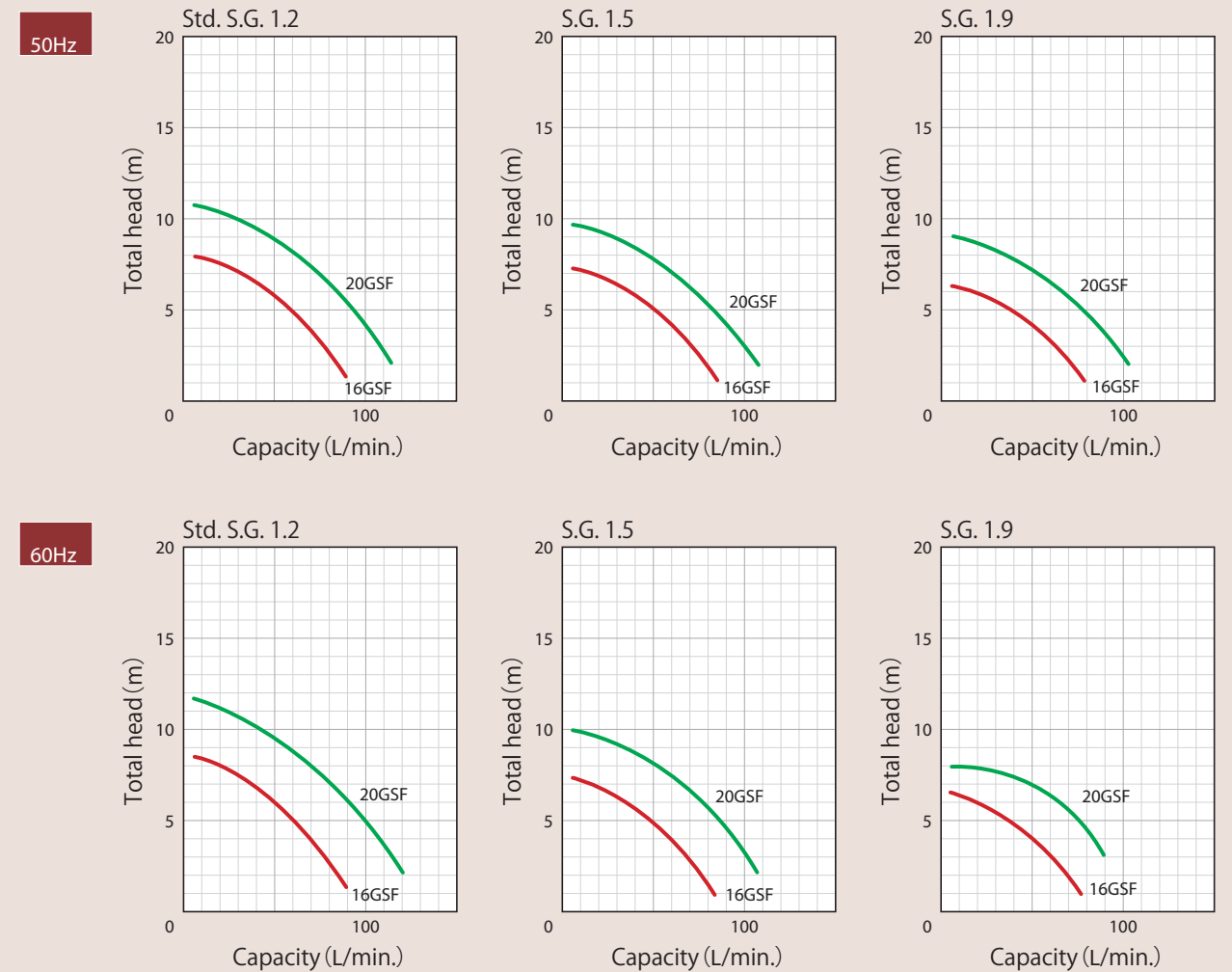
| Model | Connection | Bore (mm) | | Standard performance (L/min. - m) | | | | Output (kW) | Voltage (V) | Weight (kg) |
|----------------------|------------|-----------|------|-----------------------------------|-----------|------------|-----------|-------------|-------------|-------------|
| | | Suc. | Dis. | 50Hz | | 60Hz | | | | |
| | | | | Std. spec. | Std. S.G. | Std. spec. | Std. S.G. | | | |
| YD-16X8GSF1-CF-R□△○- | SS Thread | 20 | 16 | 60-5 | 1.2 | 60-5 | 1.2 | 0.18 | 3PH/200V | 6.6 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |
| YD-20A6GSF1-CF-R□△○- | SS Thread | 20 | 20 | 70-7.5 | 1.2 | 70-8 | 1.2 | 0.26 | 1PH/100V | 8.3 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |
| YD-20Y6GSF1-CF-R□△○- | SS Thread | 20 | 20 | 70-7.5 | 1.2 | 70-8 | 1.2 | 0.26 | 3PH/200V | 8.3 |
| | UU Union | 20 | 20 | | | | | | | |
| | FF Flange | 25A | 25A | | | | | | | |

< Performance curve >

Small GS/GSH series



Small GSF series

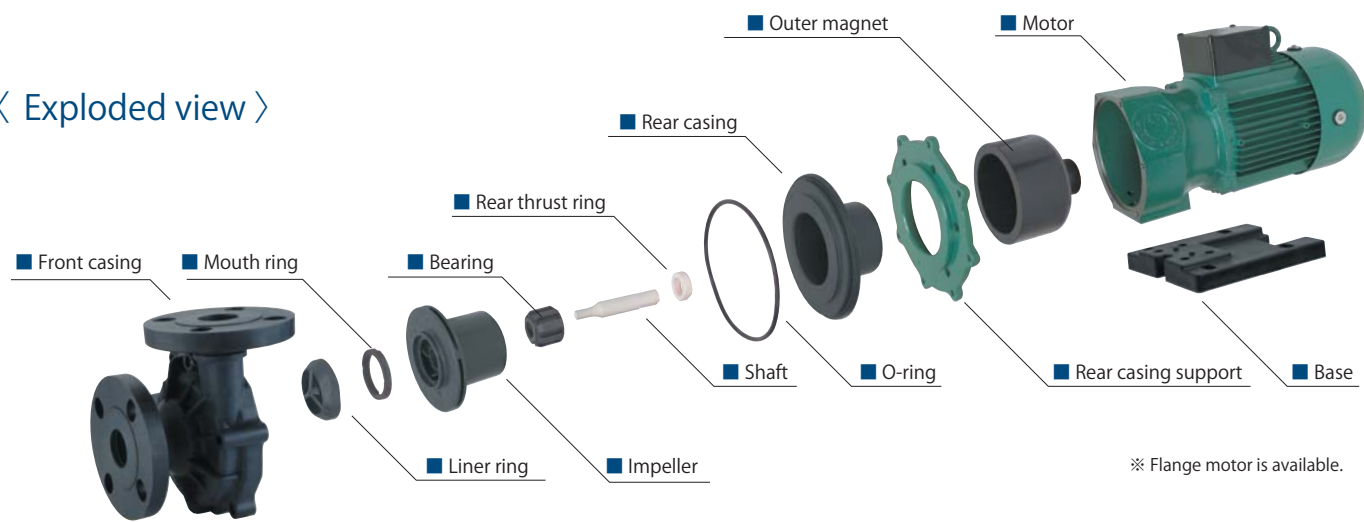


< Model description >

YD - 40 01 GS 3 - GP - RD 51

- ① Discharge bore
25 : 25A
40 : 40A
- ② Motor output
00 : 0.4
01 : 0.75
02 : 1.5
03 : 2.2
05 : 3.7
- ③ Model
GS
GSF
- ④ Motor type
1 : IE 1
3 : IE 3
- ⑤ Main material
GP : GFR PP
CF : CFR ETFE
- ⑥ O-ring material
E : EPDM
D : Dai-el (FPM)
- ⑦ Bearing material
C : High-density carbont
R : CFR PTFE
A : Alumina ceramics
- ⑧ Frequency
5 : 50Hz
6 : 60Hz
- ⑨ Specific gravity
0 : 1.0
1 : 1.05/1.1
2 : 1.2
3 : 1.3
4 : 1.4
5 : 1.5
6 : 1.6
9 : 1.9

< Exploded view >



※ Flange motor is available.

< Material >

| Part name | Material | |
|------------------|------------------------------------|-------------------------|
| | GS series | GSF series |
| Front casing | GFR PP | CFR ETFE |
| Liner ring | Alumina ceramics + GFR PPS | Alumina ceramics + ETFE |
| Mouth ring | CFR PTFE | |
| Impeller | (GFR) PP + Magnet | CFR ETFE + Magnet |
| Bearing | Carbon / Ceramics / CFR PTFE / SiC | |
| Shaft | Alumina ceramics / SiC | |
| Rear thrust ring | Alumina ceramics / SiC | |

| Part name | Material | |
|---------------------|---------------------------|------------|
| | GS series | GSF series |
| O-ring | EPDM/FPM | |
| Rear casing | GFR PP | CFR ETFE |
| Rear casing support | FC200 | |
| Outer magnet | FCD450-10 + Magnet | |
| Motor | FC200 + Alumi frame motor | |
| Base | GFR PP/FC200 | |

※ The exploded view is for only explanation of the structure. Parts are sold as a set. For more information, contact us.

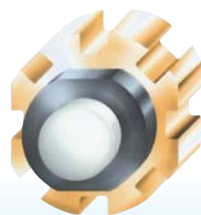
Twofold Measures of dry running

Bearing design of heat release & insulation.

When the pump runs dry, friction generates at the sliding parts and the shaft and bearing are raised to high temperature. It cause the pump damage. However, GS series is our original structure to prevent deformation.

- Shaft (Ceramics)
- Cushion (PPS)
- Bearing (Carbon)

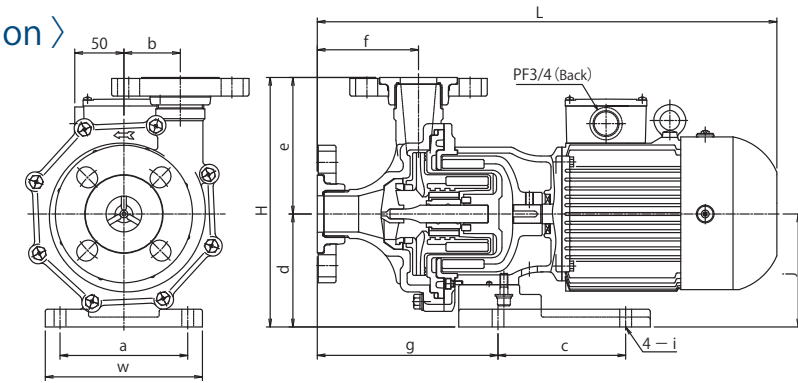
International PAT. JPN, USA, CAN, TWN, GER, FRA, GBR, NLD, ITA, SWE, DNK



Anti-air lock structure

If air enters, usually it is trapped in a rear casing. However, the rear casing and impeller have the special structure that air is easily moved and exhausted by our air release structure.

< Outline dimension >



< Dimension >

| Model | W | H | L | a | b | c | d | e | f | g | i | j |
|---------------|-----|-----|-----|-----|------|-----|-----|-----|-----|-------|-------|-------|
| YD-2500GS(F)1 | 160 | 260 | 431 | 130 | 65 | 130 | 115 | 145 | 90 | 173 | ø12 | 200 |
| YD-2501GS(F)3 | | | 457 | | | 200 | 116 | | | 156 | 14-36 | 216 |
| YD-2502GS(F)3 | 260 | 261 | 490 | 208 | 65 | 200 | 116 | 145 | 89 | 156 | 14-36 | 216 |
| YD-2503GS(F)3 | | | | | | 261 | 135 | | | 36-14 | (245) | |
| YD-4000GS(F)1 | 140 | 216 | 423 | 110 | 51 | 98 | 95 | 121 | 87 | 150 | 12-18 | 180 |
| YD-4001GS(F)3 | 160 | 254 | 468 | 130 | 57.5 | 130 | 115 | 139 | 103 | 184 | ø12 | 207 |
| YD-4002GS(F)3 | 260 | 261 | 490 | 208 | 65 | 200 | 116 | 145 | 89 | 156 | 14-36 | 216 |
| YD-4003GS(F)3 | | | | | | | 261 | | | 135 | 36-14 | (245) |
| YD-4005GS(F)3 | | 280 | 531 | 230 | | | | | | | | |

A Shaft

Thought-out shaft about durability with two points support.

- The durability of the shaft gets dramatically better by the two points support structure.
- SiC shaft which resists abrasion well is available.

B Rear casing

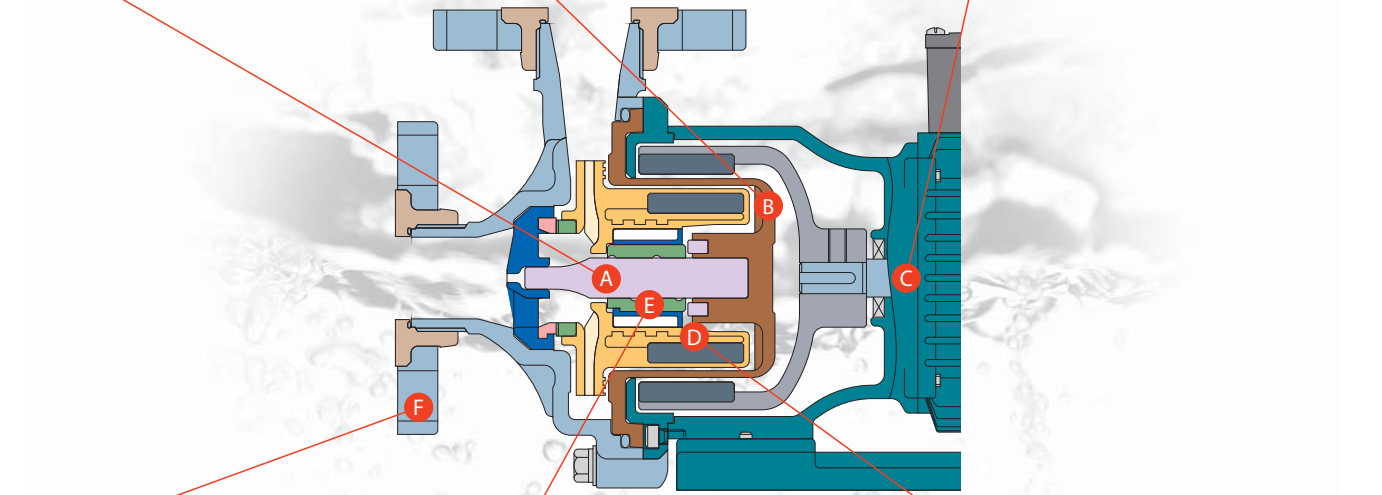
Air release structure of the rear casing with measures to prevent air lock.

- Air release structure of the rear casing and air stay prevention of the impeller fulfill measures against air lock.
- Carbon fiber is adopted to reinforce the rear casing and the pressure resistance gets dramatically better.
- ※ Only 4002-4005GSF3.

C Exclusive motor (with Terminal box)

The exclusive motor is outdoor type as standard and the durability gets better.

- Reinforced plastic terminal box does not ruin and can be used in a chemical atmosphere. Besides, it is placed at the top of the motor to wire easily.
- Lip seal is attached for measures against gas caused corrosion and liquid leakage. It increases the motor life very much.
- When using the inverter with 400V, the motor is general one.



F Loose flange

No need to adjust the position of the bolt holes when installation.

- Loose flange is adopted to fit to the other side freely and possible to replace from other maker's pump with free from worry about connecting dimension.

E Bearing

Variety of Bearing against wide range of liquid.

- Selectable bearing depending on use liquid / with slurry or not.
- 4 types of material: Carbon / Ceramics / Rearfuron / SiC

D Impeller & Magnet

Rare earth magnet is adopted and makes the impeller compact. (1.5kW and more)

- Powerful rare earth magnet is adopted. (1.5kW and more) It delivers superior performance.
- The impeller is integrated with the magnet and has a resistance to inverse rotation and high temperature.
- Our original impeller shape is high efficiency.

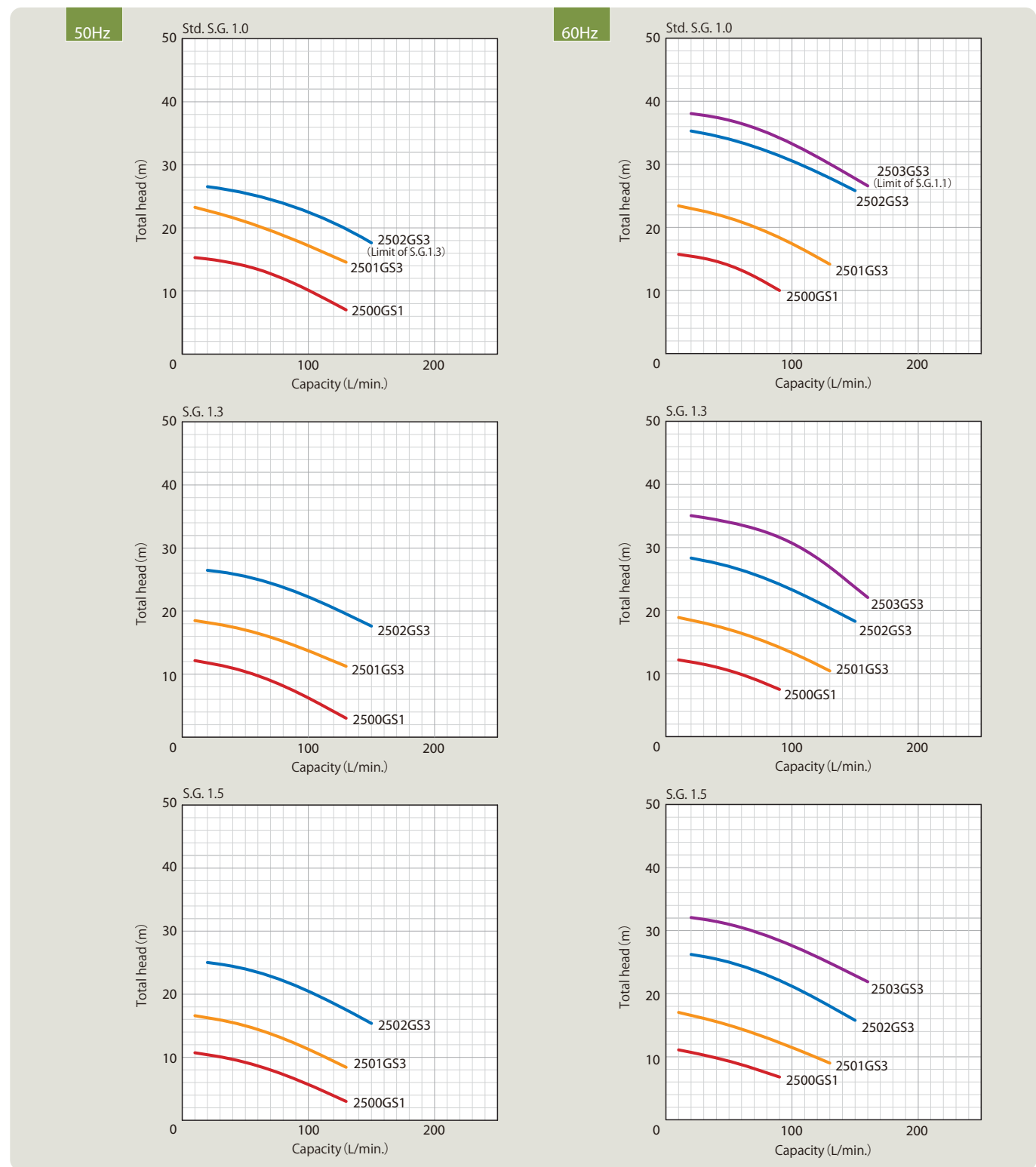
GS series (Main material : GFR PP)

< Standard performance >

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|------------|------|--------------------------------------|---------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-2500GS1 | 1.0 | 50-14 | 50-14 | 0.4 | 19.5 |
| | 1.3 | 50-10 | 50-10.5 | | |
| | 1.5 | 50-9 | 50-9 | | |
| YD-2501GS3 | 1.0 | 50-21 | 50-21.5 | 0.75 | 21.5 |
| | 1.3 | 50-17 | 50-17 | | |
| | 1.5 | 50-15 | 50-15 | | |

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|------------|------|--------------------------------------|-------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-2502GS3 | 1.0 | | 50-34 | 1.5 | 26.5 |
| | 1.3 | 50-25.5 | 50-27 | | |
| | 1.5 | 50-24 | 50-25 | | |
| YD-2503GS3 | 1.1 | | 50-37 | 2.2 | 28.5 |
| | 1.3 | | 50-34 | | |
| | 1.5 | | 50-31 | | |

< Performance curve > 2500GS series



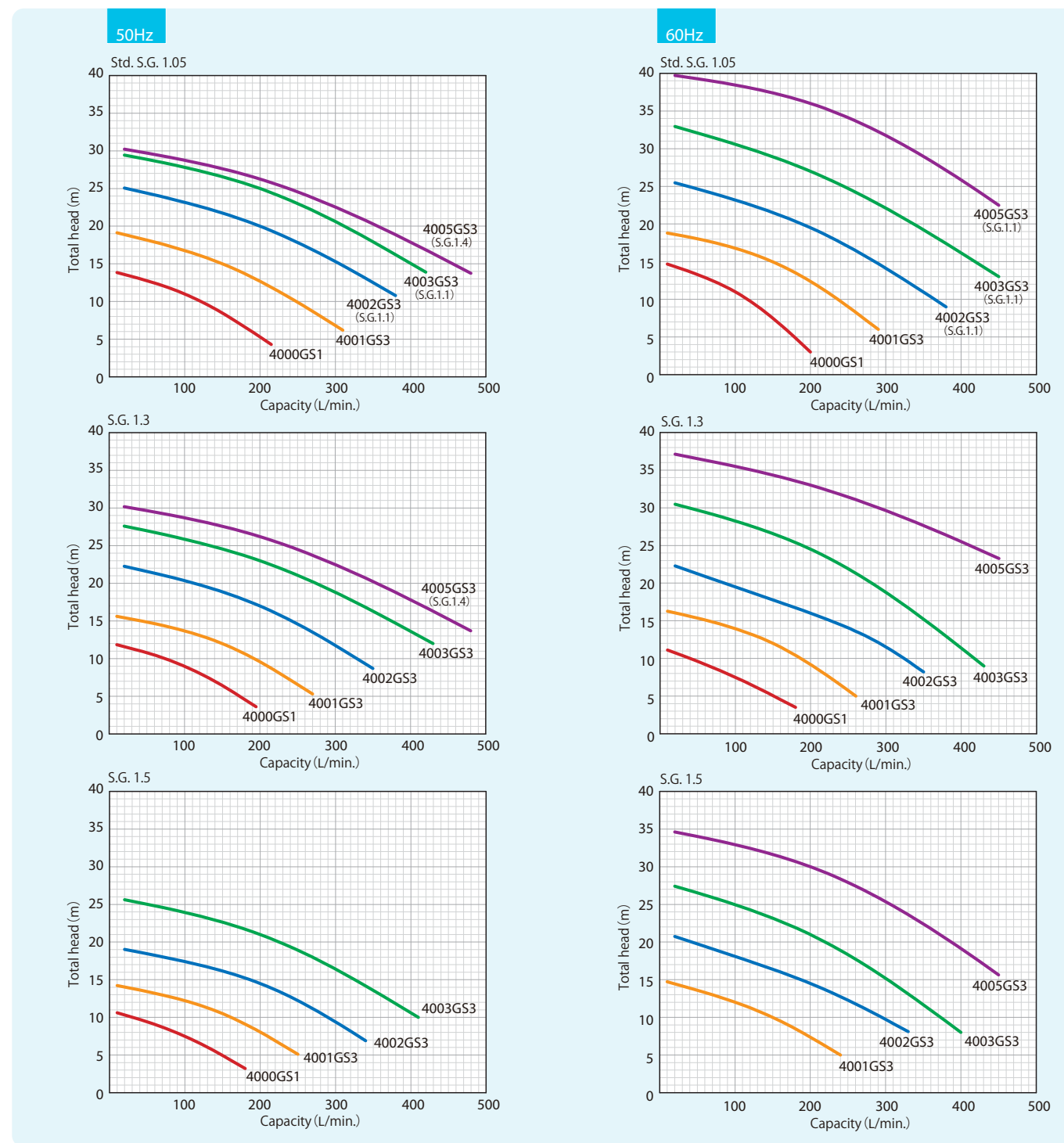
GS series (Main material : GFR PP)

< Standard performance >

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|------------|------|--------------------------------------|----------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-4000GS1 | 1.05 | 100-11 | 100-11 | 0.4 | 16.5 |
| | 1.3 | 100-9 | 100-7.5 | | |
| | 1.5 | 100-7.5 | | | |
| YD-4001GS3 | 1.05 | 150-15 | 50-15 | 0.75 | 19.5 |
| | 1.3 | 150-12 | 150-12 | | |
| | 1.5 | 150-10.5 | 150-10 | | |
| YD-4002GS3 | 1.1 | 200-20 | 200-19.5 | 1.5 | 25.5 |
| | 1.3 | 200-17 | 200-16 | | |
| | 1.5 | 200-14.5 | 200-14.5 | | |

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|------------|------|--------------------------------------|----------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-4003GS3 | 1.1 | 200-25 | 200-27 | 2.2 | 27.5 |
| | 1.3 | 200-23 | 200-24.5 | | |
| | 1.5 | 200-21 | 200-21 | | |
| YD-4005GS3 | 1.1 | | 200-36 | 3.7 | 41.5 |
| | 1.3 | | 200-33 | | |
| | 1.4 | 200-26.5 | | | |
| | 1.5 | | 200-30 | | |

< Performance curve > 4000GS series



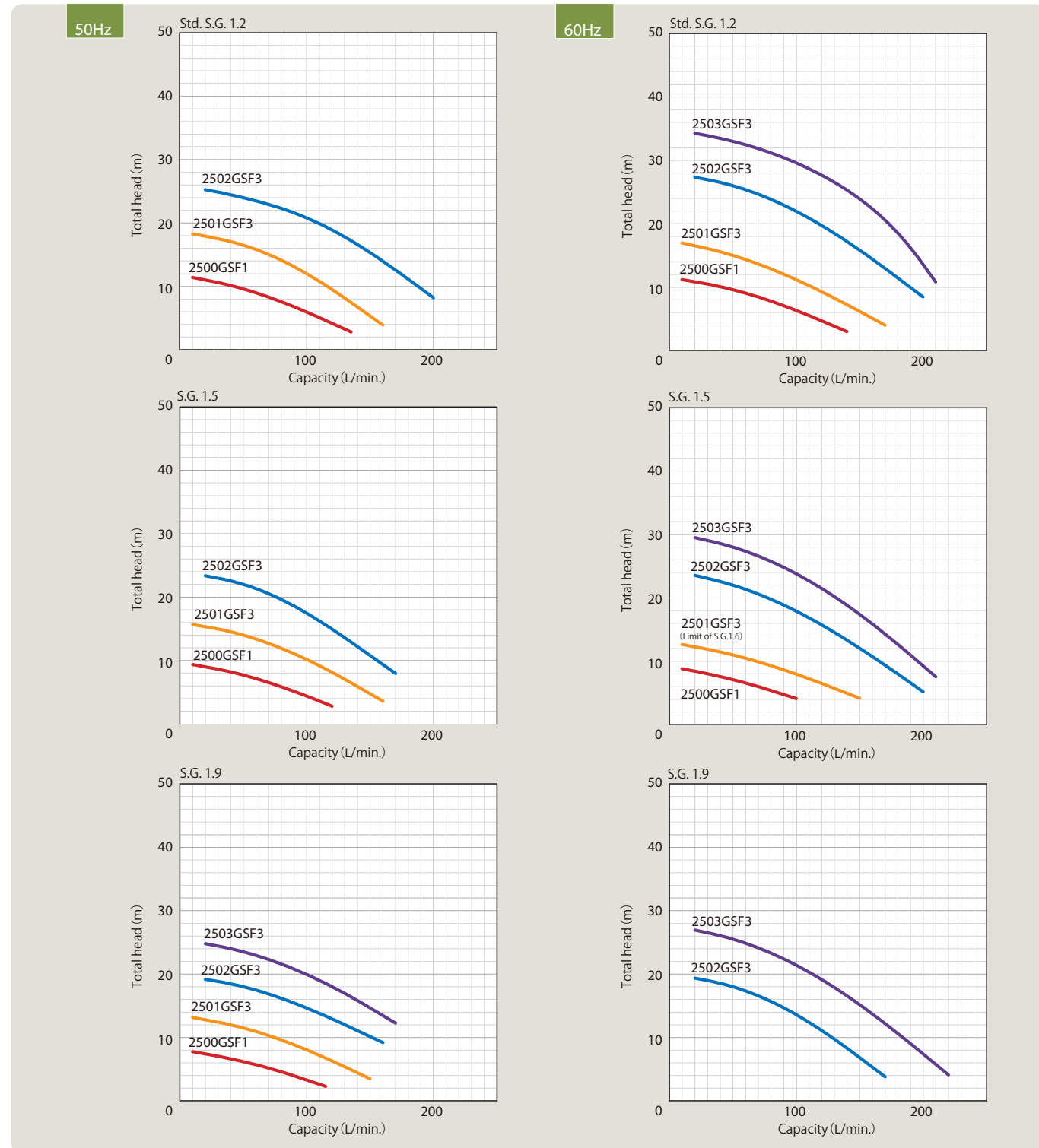
GSF series (Main material : CFR ETFE)

< Standard performance >

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|-------------|------|--------------------------------------|--------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-2500GSF1 | 1.2 | 50- 9 | 50-9 | 0.4 | 20.5 |
| | 1.5 | 50- 7 | 50-6.5 | | |
| | 1.9 | 50- 5.5 | | | |
| YD-2501GSF3 | 1.2 | 50- 16.5 | 50-15 | 0.75 | 22.5 |
| | 1.5 | 50- 14 | | | |
| | 1.6 | | 50-11 | | |
| | 1.9 | 50- 11.5 | | | |

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|-------------|------|--------------------------------------|---------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-2502GSF3 | 1.2 | 50-24 | 50-26 | 1.5 | 28.0 |
| | 1.5 | 50-22 | 50-22 | | |
| | 1.9 | 50-18 | 50-18 | | |
| YD-2503GSF3 | 1.2 | | 50-33 | 2.2 | 30.0 |
| | 1.5 | | 50-28 | | |
| | 1.9 | 50-23.5 | 50-25.5 | | |

< Performance curve > 2500GSFseries



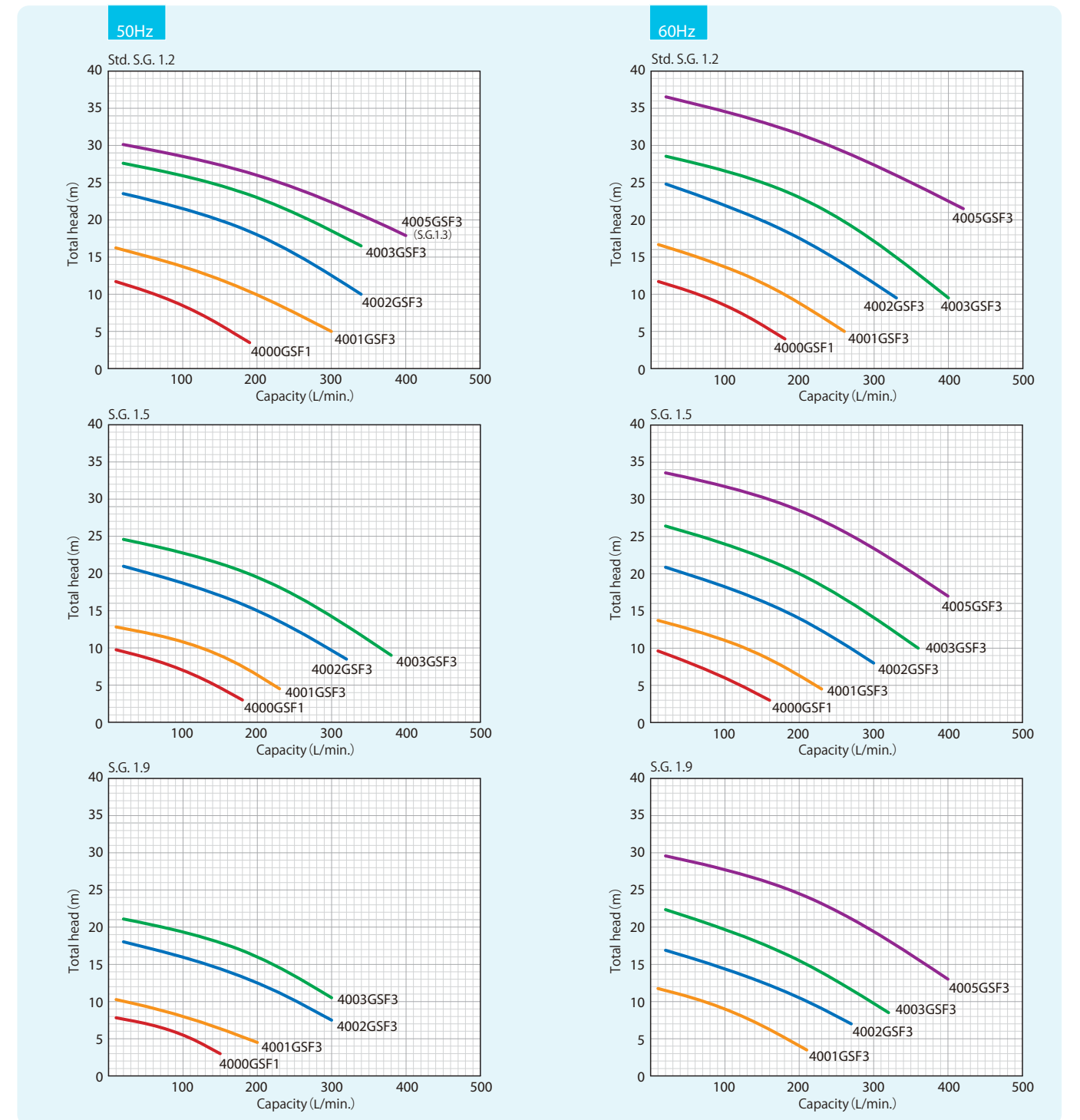
GSF series (Main material : CFR ETFE)

< Standard performance >

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|-------------|------|--------------------------------------|-----------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-4000GSF1 | 1.2 | 100- 8.5 | 100- 9 | 0.4 | 17.5 |
| | 1.5 | 100- 7 | 100- 6 | | |
| | 1.9 | 100- 5.5 | | | |
| YD-4001GSF3 | 1.2 | 150- 12 | 150- 11.5 | 0.75 | 20.5 |
| | 1.5 | 150- 9 | 150- 9 | | |
| | 1.9 | 100- 8 | 100- 9 | | |
| YD-4002GSF3 | 1.2 | 200- 18 | 200- 17.5 | 1.5 | 27.0 |
| | 1.5 | 200- 15 | 200- 14 | | |
| | 1.9 | 200- 12.5 | 200- 10.5 | | |

| Model | S.G. | Performance Capacity-THD (L/min - m) | | Output (kW) | Weight (kg) |
|-------------|------|--------------------------------------|----------|-------------|-------------|
| | | 50Hz | 60Hz | | |
| YD-4003GSF3 | 1.2 | 200-23 | 200-23 | 2.2 | 29.0 |
| | 1.5 | 200-19.5 | 200-20 | | |
| | 1.9 | 200-16 | 200-15.5 | | |
| YD-4005GSF3 | 1.2 | | 200-31.5 | 3.7 | 43.0 |
| | 1.3 | 200-26 | | | |
| | 1.5 | | 200-28.5 | | |
| | 1.9 | | 200-24.5 | | |

< Performance curve > 4000GSF series



Caution when installation / piping

YD-GS[H] / GSF series

1) Caution when installation

- ① If a large amount of air enters during operation, pumping failure occurs and causes the pump trouble.
 - Locate that the liquid level in a tank is 50 cm and more higher than the suction inlet of the pump.
 - Do not make spaces in the suction pipe where air stays or install up and down piping.
 - Install the suction pipe on the 1/100 and more up grade to the pump.
 - Use the suction pipe is bigger than the pump bore. If they are different, use the eccentric reducer to level the top.
- ② Place the strainer at the suction pipe to prevent dust and foreign objects enter.
However, clean the strainer periodically to prevent clogging and minimize loss resistance.
- ③ It is recommended to place check valves at the discharge rising pipe to prevent water hammer as follows.
Bypass pipes are also recommended to place underneath for air release.
 - The discharge pipe is long and the total head is 10 m and more.
 - The tip of the discharge pipe is 9 m and more higher than the suction tank.
 - The piping condition to use 2 and more pumps in parallel.
- ④ Install bendings and expansion joints not to leak liquid by the pump deformation for the pipes' heat expansion.
- ⑤ Main parts inside the pump are made of plastic. Handle them with care not to make an impact.

2) Prohibition of flange uneven tightening and overtightening

- ① Align the pipe flange parallel to the pump flange and do not tighten bolts excessively.
- ② When piping, adjust the assembling dimensions.
If assemble while not fit in, the pump casing may be damaged.
Moreover, uneven tightening may cause liquid leakage from packings. Tighten it diagonally and evenly.

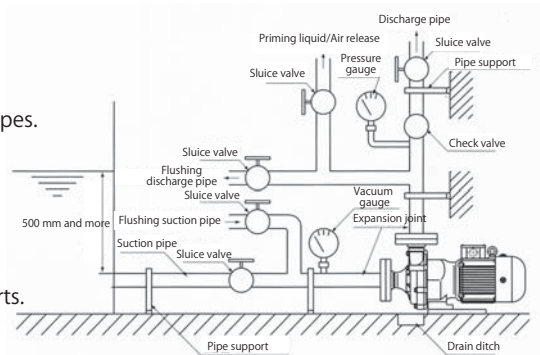
3) Prohibition of piping load

- ① Be completely subjected to a piping load by pipe supports.
- ② When the temperature of liquid is high (40°C and more), install bendings and expansion joints not to be applied a load to the pump by heat expansion of pipes.
- ③ Do not use metal pipes as much as possible and use the plastic one.
※Especially, metal pipes are often used for strong sulfuric acid and caustic soda and obey the above prohibitions ② & ③.

4) Minimum flow rate

During operation, secure the following minimum flow rate to cool the sliding parts.

- Motor output 0.18 ~ 0.26kW : 5 L/min.
- Motor output 0.4 ~ 0.75kW : 10 L/min.
- Motor output 1.5 ~ 3.7kW : 20 L/min.



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