

TYPE MA/MB

SEALLESS

COMPACT STAINLESS STEEL MAGNET DRIVE PUMPS

Motor output :

25W to 60W

- ▶ **Leak free, highly reliable** sealless magnet drive pump.
- ▶ Handle product **temperatures up to 130°C (266°F)**.
- ▶ **Very compact and minimum weight.**
- ▶ **316SS construction** for excellent corrosion resistance.
- ▶ **SiC-D low friction bearings withstand accidental dry-run on start up.**
- ▶ **Practically maintenance free** construction, requires minimum parts inventory.

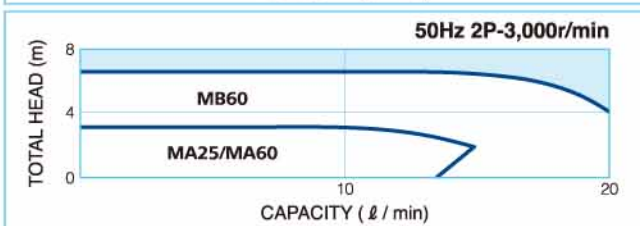
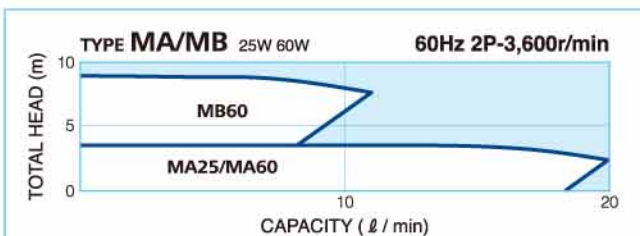


TYPE MA 25W/60W



TYPE MB 60W

Selection charts

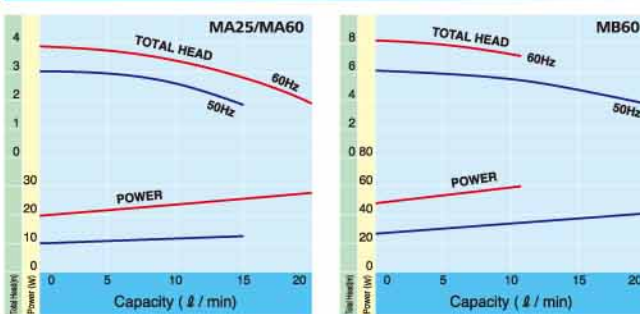


Specifications

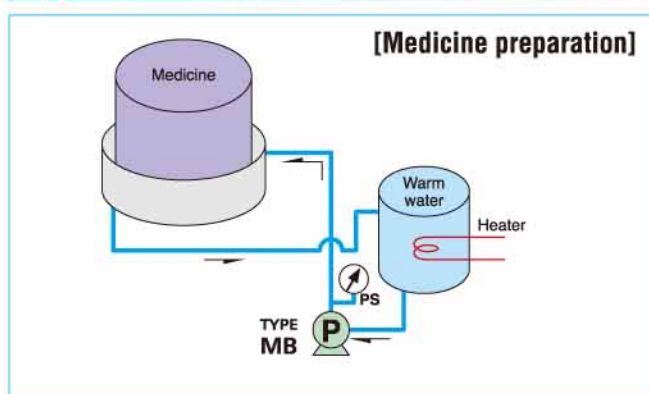
| | MA | | MB | |
|------------------------------|-----------------------|----------|----------|----------|
| Frequency | 50Hz | 60Hz | 50Hz | 60Hz |
| Max. total head | 3m | 3.5m | 6m | 8m |
| Max. capacity | 15 l/min | 20 l/min | 20 l/min | 10 l/min |
| Max. temperature applicable | 130°C | | | |
| Min. temperature applicable | -20°C | | | |
| Max. liquid specific gravity | 1.1 (MA25) , 2 (MA60) | | 1.1 | |
| Max. liquid viscosity | 50mPa·s(cP) | | | |
| Design pressure | 0.6MPaG | | | |
| Bore (suction x discharge) | 14x12mm | | 14x13mm | |
| Flange standard | R thread | | | |
| Type of impeller | Open | | Closed | |
| Motor output rating | 25W/60W | | 60W | |
| Pump material | SCS14(SUS316) | | | |
| Liquid-immersed bearings | SiC-D | | | |

Performance curves

(60Hz 2P-3,600r/min, 50Hz 2P-3,000r/min)

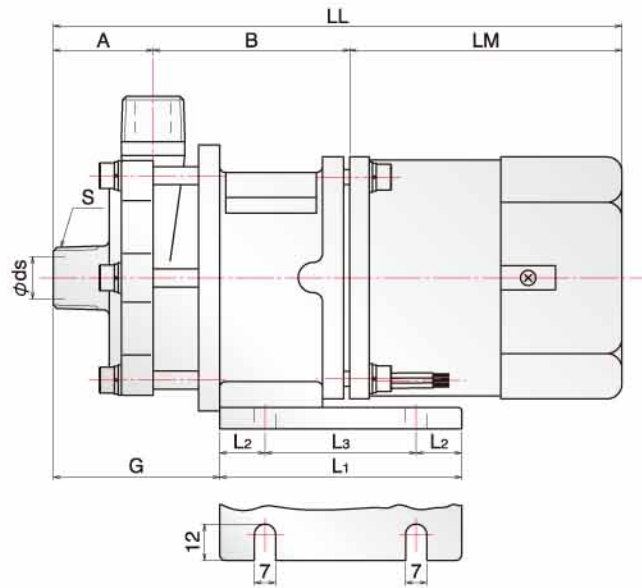
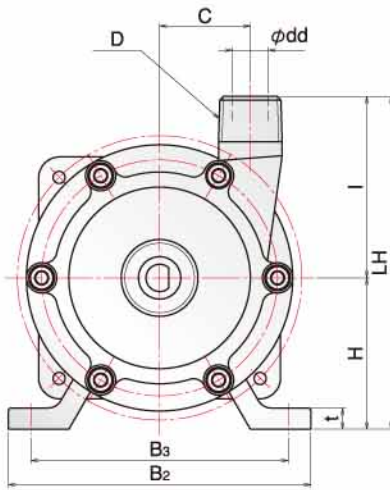


Application example





Outline dimension



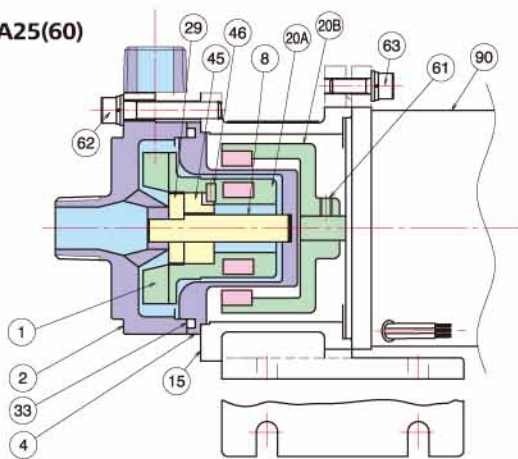
(In the unit of mm)

| PUMP SIZE | MOTOR | | BORE | | | | PUMP & MOTOR | | | | | | BASE PLATE | | | | | | WEIGHT APPROX(kg) | | | | | |
|-----------|------------|------------|---------|---------|-----|------|--------------|----|----|----|----|-----|------------|-----|----|----|----|----|-------------------|----|---|------|-------|-------|
| | FRAME SIZE | OUTPUT (W) | SUCT ds | DISCH S | φdd | D | A | B | C | H | I | LH | LM | LL | G | L1 | L2 | L3 | B2 | B3 | t | PUMP | MOTOR | TOTAL |
| MA | - | 25 | 14 | R1/2 | 12 | R1/2 | 33 | 65 | 30 | 50 | 60 | 110 | 90 | 188 | 55 | 80 | 15 | 50 | 100 | 85 | 7 | 2.2 | 1.3 | 3.5 |
| | - | 60 | 14 | R1/2 | 12 | R1/2 | 33 | 65 | 30 | 50 | 60 | 110 | 120 | 218 | 55 | 80 | 15 | 50 | 100 | 85 | 7 | 2.2 | 2.0 | 4.2 |
| MB | - | 60 | 14 | R1/2 | 13 | R1/2 | 45 | 64 | 0 | 50 | 70 | 120 | 120 | 229 | 66 | 80 | 15 | 50 | 100 | 85 | 7 | 2.4 | 2.0 | 4.4 |

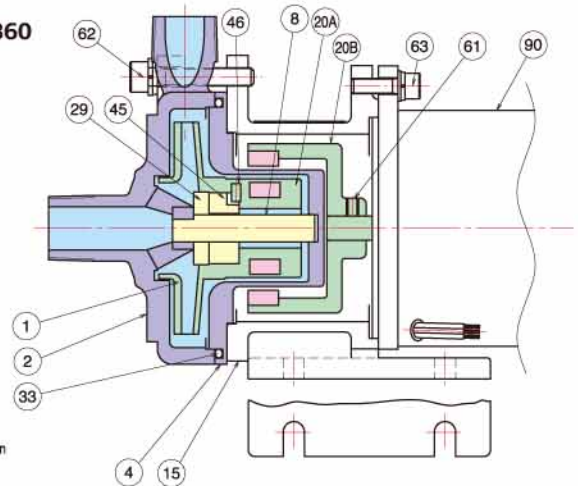
LM,LL dimensions and motor weight may vary depending on motor used.

Construction and materials

MA25(60)



MB60



■ Magnet
 ■ Pressure vessel
 ■ Rotating parts
 ■ Bearings
 ■ Liquid immersed portion

| | | | | | | | |
|------|--------------------|------------|----------------|------|---|--------|----------------|
| 20B | MAGNET | RARE EARTH | 1 ^S | 90 | MOTOR | - | 1 |
| | MAGNET COUPLING(M) | FCD | 1 | 63 | HEXAGON SOCKET HEAD CAP SCREW WITH WASHER | SUS304 | 4 ^S |
| 20A | MAGNET | RARE EARTH | 1 ^S | 62 | HEXAGON SOCKET HEAD CAP SCREW WITH WASHER | SUS304 | 6 ^S |
| | MAGNET COUPLING(P) | SUS316 | 1 | 61 | SET SCREW | SCM435 | 1 |
| 15 | FRAME ADAPTER | FC200 | 1 | 46 | PIN | SUS316 | 1 |
| 8 | SHAFT | SIC | 1 | 45 | BUSHING | SIC-D | 1 |
| 4 | REAR CASING | SUS316 | 1 | 33 | O RING | PTFE | 1 |
| 2 | CASING | SCS14 | 1 | 29 | THRUST RING | SIC | 1 |
| 1 | IMPELLER | SCS14 | 1 | | | | |
| MARK | NAME OF PART | MAT'L | No. REQ'D | MARK | NAME OF PART | MAT'L | No. REQ'D |

Examples of usage

- Semiconductor and liquid crystal processing
- Freezer and cooling device
- Various physicochemical equipment
- Laboratory and testing equipment
- Pharmaceutical and food processing