

MCI , MCN , HM , HMI series Horizontal Multistage Centrifugal Pump



HENG LONG ELECTRIC CO., LTD.



Profile 02

MCI , MCN sseries 03~05

Type page

MCI , MCN 2 06

MCI , MCN 4 07

MCI , MCN 8 08

MCI , MCN 12 09

HM series 10~12

Type page

HM 2 13

HM 4 14

HM 8 15

HM 12 16

HMI series 17~19

Type page

HMI 2 20

HMI 4 21





Profile

Heng Long Electric Co., Ltd. is one of the superior professional manufacturers in Taiwan. With growing pump industry in Taiwan, we own a reputable brand, "Grampus".

Moreover, we have more than 30 year experiences in designing, researching, developing and innovating. We not only insist to use high quality materials, but also adopt professional detection equipments to monitor producing process to ensure our pumps are reliable and excellent.

So far our products are used in various scopes, such as wastewater treatment, farm-irrigation, aquaculture industries, people's livelihood...etc.

Quality Policy

Quality is not only always our supreme spirit to perform and maintain, but also it is our mission as well.

Business Thought

Integrity is the foundation of culture and business; all activities are performed based upon sincerity.

Innovation is the key point of growth and development; the operation system of entire organization is based on the innovation.

Improvement is the product performance and working process, by non-stopping improvement in which is able to achieve final organizational goals.



Horizontal Multistage Centrifugal Pump

Commercial & Industrial



| Power | Max.Flow | Max.Head |
|------------|-----------------|------------|
| 360-3610 W | Up to 235 L/min | Up to 58 M |

Description

MCI and MCN series pumps are non-self-priming, horizontal, multistage centrifugal pumps. The compact design make the MCI and MCN pumps suitable for installation in many types of system. The pumps are made of corrosion-resistant materials, and they are suited for water supply and a wide range of applications in industry, agriculture and even food industry. MCI and MCN pumps are suitable for thin, clean and non-explosive liquids such as softened water, demineralized water, light oils, and cleaning solutions.

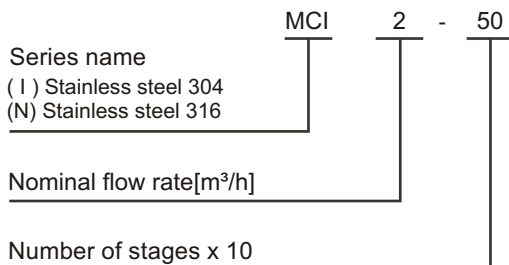
Features

- All parts contact with liquid are made of stainless steel
- Easy set-up and installation
- High efficiency for low electricity bill
- Robust construction for better reliability
- Quiet operation for better life quality
- Optional mechanical seal combinations for various applications

Application

- Industrial circulation system
- Water treatment
- Pressure booster system
- Chiller machine & cooling system
- Washing & cleaning system
- Ultrasonic clean machine
- Softened water
- Fertilizer / dosing system
- PCB Industrial
- CNC, grinding, lathes, electric discharge, air conditioner machines

Model Code



General Data

| Motor Spec | |
|----------------------------|---------------------------------------|
| Motor Type | 2 Pole, totally enclosed fan-cooled |
| Frequency | 50HZ |
| Standard Voltages | 1Ø220~240V |
| | 3Ø220~240/380~415V |
| Insulation Class | F class (155°C) |
| Enclosure Protection Class | IP 54 |
| Nominal Speed | 2850 rpm |
| Operation Conditions | |
| Liquids | Non-corrosive / explosive / flammable |
| Liquid Temperature | 0°C~110°C |
| Ambient Temperature | Max. 40°C |
| System Pressure | Max. 10kg |

■ Pipe Connections

| Connection | MCI / MCN 2 | MCI / MCN 4 | MCI / MCN 8 | MCI / MCN 12 |
|--------------------------|-------------|-------------|-------------|--------------|
| Suction Port | Rp 1 | Rp 1 1/4 | Rp 1 1/2 | Rp 1 1/2 |
| Discharge Port | Rp 1 | Rp 1 1/4 | Rp 1 1/2 | Rp 1 1/2 |
| Drain Hole, Priming Hole | G 3/8 | G 3/8 | G 3/8 | G 3/8 |

■ Mechanical Seals

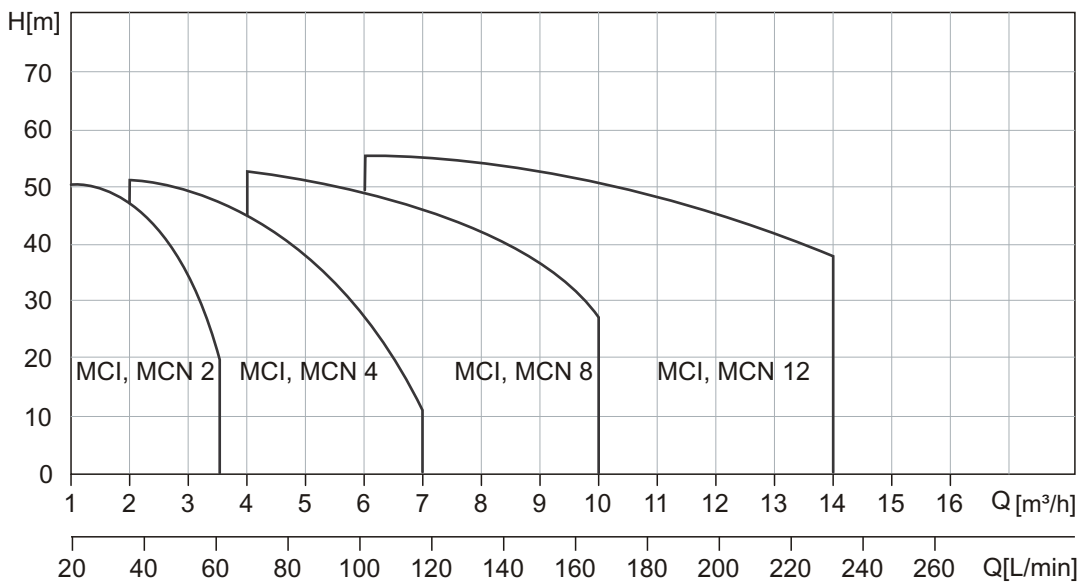
| List of Materials | | | | |
|--------------------|----------|----------|----------|----------|
| Q: Silicon carbide | | E: EPDM | | |
| B: Carbon | | V: Viton | | |
| H: Seal Type | | | | |
| Mechanical seals | MCI 2/4 | MCI 8/12 | MCN 2/4 | MCN 8/12 |
| HQB | ● | ● | ● | ● |
| HQQ | Optional | Optional | Optional | Optional |
| O-rings | | | | |
| E | ● | ● | ● | ● |
| V | Optional | Optional | Optional | Optional |

● Standard

■ Liquids to be pumped

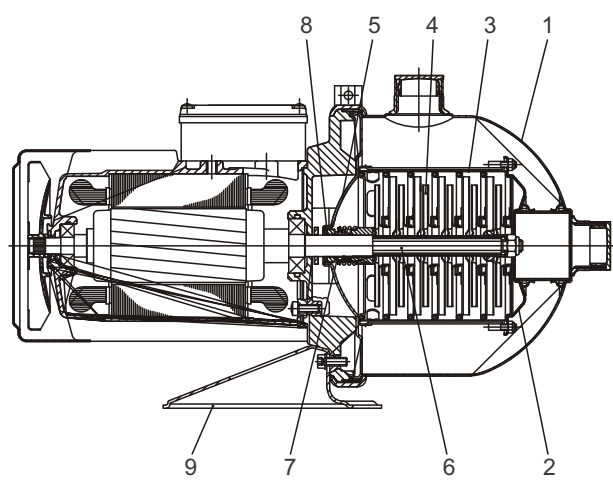
These pumps are designed for pumping freely flowing non-corrosive, non-explosive, and non-flammable liquids. The liquids to be pumped must also be free solid matter, sands, fibers, and similar materials. Most common non-highly corrosive watery liquids, hot and cold liquids can be pumped with this pump. The suitability of factors, such as the pH level, contents of chemicals such as chlorides, oils, the temperature of the liquids, etc. Please contact Grampus if there are any questions as to whether certain liquids are suitable for pumping with the pump.

Performance Range



Material Construction

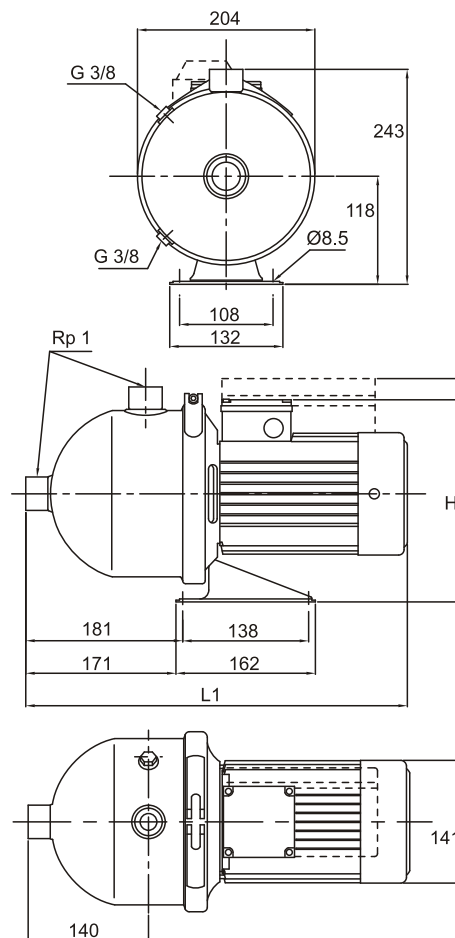
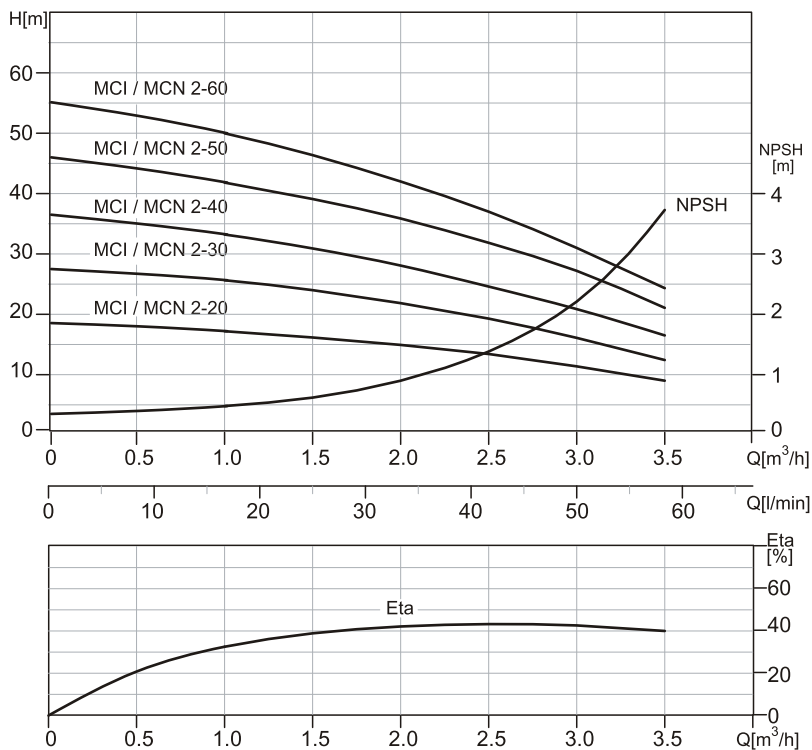
MCI , MCN



| Pos. | Description | Materials | |
|------|-------------------------|--------------------------|--------------------------|
| | | MCI | MCN |
| 1 | Pump casing | SS304 | SS316 |
| 2 | Suction inter-connector | SS304 | SS316 |
| 3 | Chamber | SS304 | SS316 |
| 4 | Impeller | SS304 | SS316 |
| 5 | Cover plate | SS304 | SS316 |
| 6 | Shaft | SS431 | SS316 |
| 7 | Mechanical seal | Silicon carbide / Carbon | Silicon carbide / Carbon |
| 8 | O-ring | EPDM | EPDM |
| 9 | Base plate | Steel | Steel |

MCI / MCN 2

Performance Curves



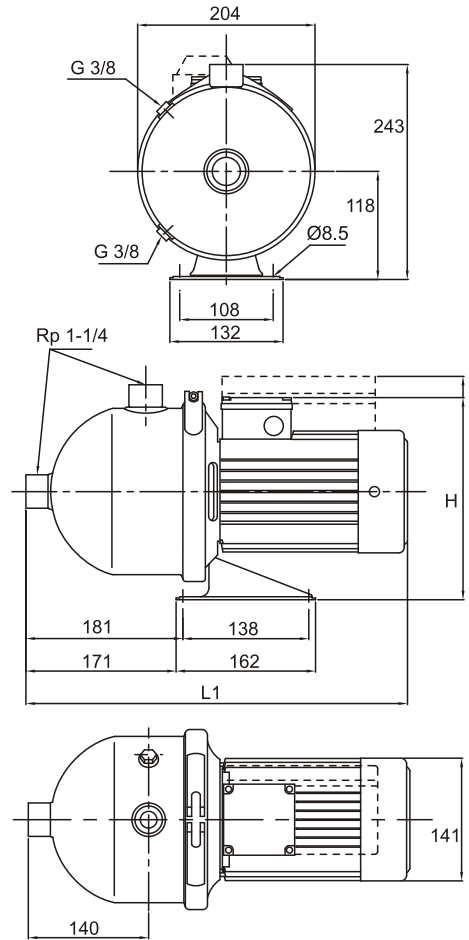
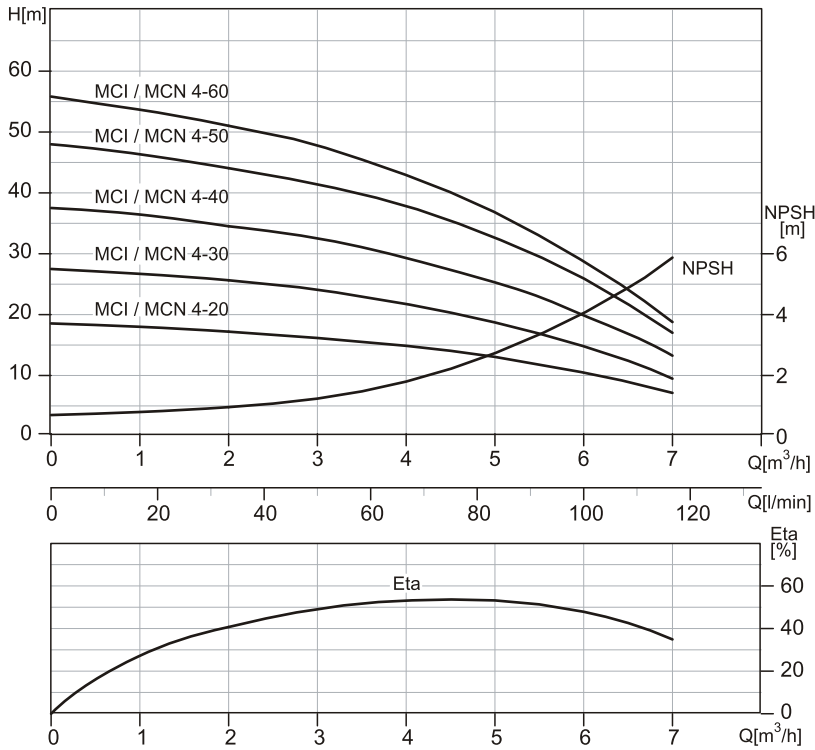
Dimensions and Weights

| Model | Motor | | Dimensions(mm) | | | | Net weight [kg] |
|----------------|----------------|------|----------------|-----|---------|-----|-----------------|
| | P ₂ | | 1-Phase | | 3-Phase | | |
| | Phase | HP | L1 | H | L1 | H | |
| MCI / MCN 2-20 | 1 | 0.5 | 403 | 255 | 403 | 233 | 9.6 |
| | 3 | | | | | | |
| MCI / MCN 2-30 | 1 | 0.5 | 403 | 255 | 403 | 233 | 9.9 |
| | 3 | | | | | | |
| MCI / MCN 2-40 | 1 | 0.5 | 403 | 255 | 403 | 233 | 10.1 |
| | 3 | | | | | | |
| MCI / MCN 2-50 | 1 | 0.75 | 403 | 255 | 403 | 233 | 10.8 |
| | 3 | | | | | | |
| MCI / MCN 2-60 | 1 | 0.75 | 403 | 255 | 403 | 233 | 11.0 |
| | 3 | | | | | | |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|----------------|--------------------|----------------------|-------------------------|----------------------|
| | P ₁ [W] | I _{1/1} [A] | P ₁ [W] | I _{1/1} [A] |
| MCI / MCN 2-20 | 360 | 1.7-1.9 | 370 | 2.0-2.7 / 1.2-1.6 |
| MCI / MCN 2-30 | 470 | 2.3-2.2 | 550 | 2.4-2.8 / 1.4-1.6 |
| MCI / MCN2-40 | 580 | 2.7-2.6 | 650 | 2.4-2.7 / 1.4-1.6 |
| MCI / MCN 2-50 | 720 | 3.2-3.3 | 810 | 2.7-3.0 / 1.6-1.8 |
| MCI / MCN 2-60 | 830 | 3.8-3.6 | 910 | 2.9-3.3 / 1.7-1.9 |

Performance Curves



Dimensions and Weights

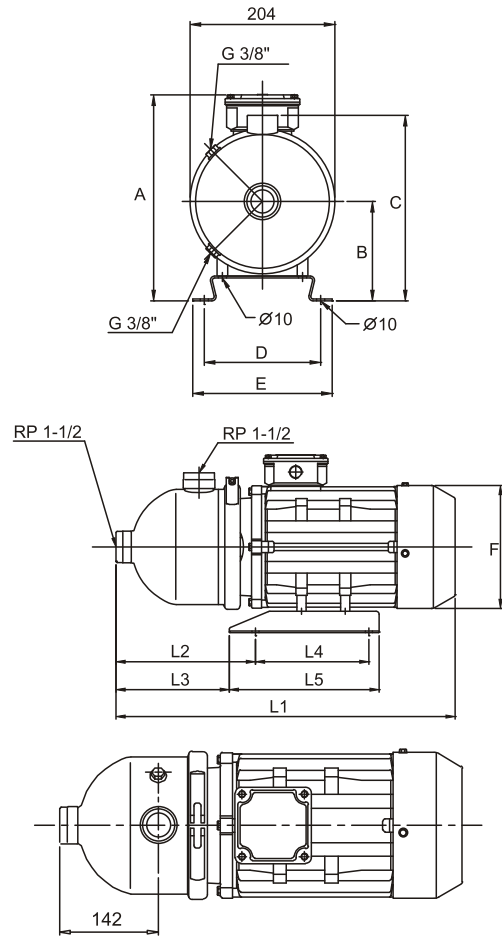
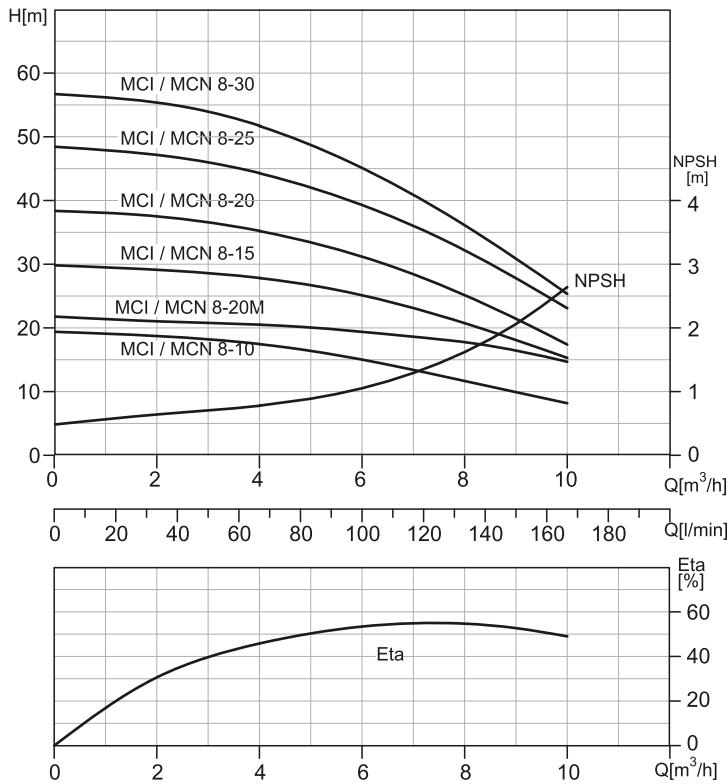
| Model | Motor | | Dimensions(mm) | | | | Net weight [kg] |
|----------------|----------------|------|----------------|-----|---------|-----|-----------------|
| | P ₂ | | 1-Phase | | 3-Phase | | |
| | Phase | HP | L1 | H | L1 | H | |
| MCI / MCN 4-20 | 1 | 0.5 | 403 | 255 | 403 | 233 | 9.6 |
| | 3 | | | | | | |
| MCI / MCN 4-30 | 1 | 0.5 | 403 | 255 | 403 | 233 | 9.9 |
| | 3 | | | | | | |
| MCI / MCN 4-40 | 1 | 0.75 | 403 | 255 | 403 | 233 | 10.6 |
| | 3 | | | | | | |
| MCI / MCN 4-50 | 1 | 1 | 441 | 255 | 441 | 233 | 12.1 |
| | 3 | | | | | | |
| MCI / MCN 4-60 | 1 | 1.5 | 441 | 255 | 441 | 233 | 12.3 |
| | 3 | | | | | | |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|----------------|--------------------|----------------------|-------------------------|----------------------|
| | P ₁ [W] | I _{1/n} [A] | P ₁ [W] | I _{1/n} [A] |
| MCI / MCN 4-20 | 580 | 2.7-2.6 | 660 | 2.5-2.9 / 1.5-1.7 |
| MCI / MCN 4-30 | 820 | 3.9-3.7 | 850 | 2.8-3.0 / 1.6-1.7 |
| MCI / MCN 4-40 | 1000 | 4.6-4.4 | 1060 | 3.3-3.5 / 1.9-2.0 |
| MCI / MCN 4-50 | 1240 | 5.8-5.5 | 1310 | 4.2-4.5 / 2.4-2.6 |
| MCI / MCN 4-60 | 1510 | 7.1-6.9 | 1550 | 5.2-5.6 / 3.0-3.3 |

MCI / MCN 8

Performance Curves



MCI, MCN Series

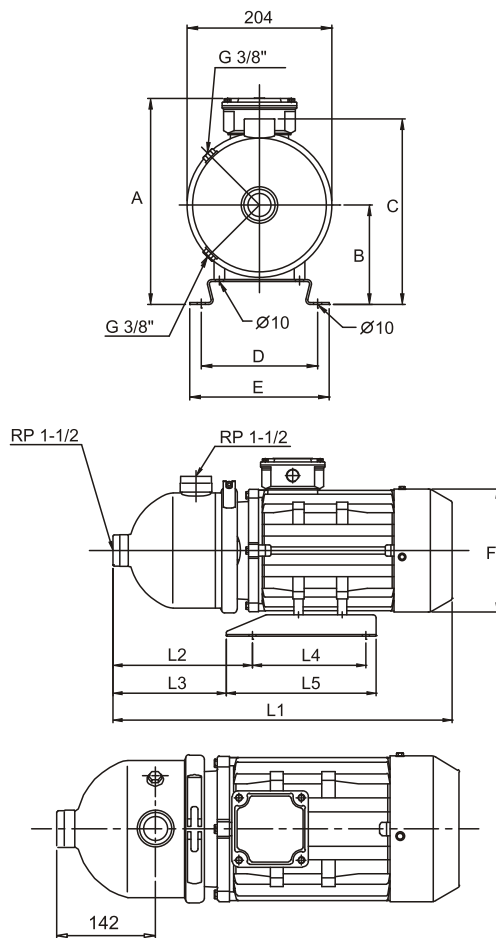
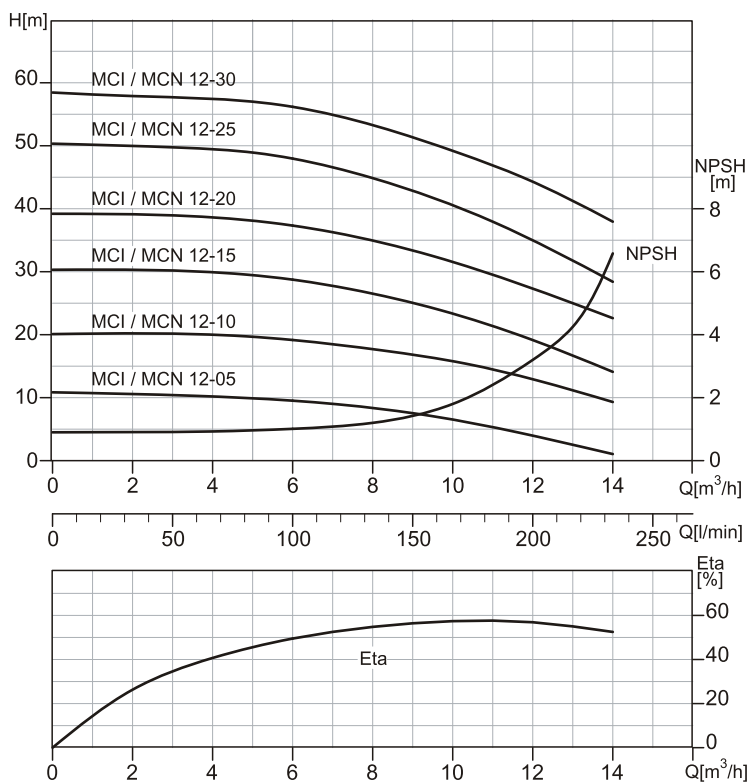
Dimensions and Weights

| Model | motor | | Dimensions(mm) | | | | | | | | | | | | | Net weight [kg] | |
|-----------------|----------------|------|----------------|--------|-----|-----|-----|-----|--------|--------|-----|-----|-----|-----|-----|-----------------|--------|
| | P ₂ | HP | L1 | | L2 | L3 | L4 | L5 | A | | B | C | D | E | F | 1phase | 3phase |
| | | | 1phase | 3phase | | | | | 1phase | 3phase | | | | | | | |
| MCI / MCN 8-10 | 1/3 | 0.75 | 403 | 403 | 181 | 171 | 138 | 162 | 255 | 233 | 118 | 243 | 108 | 132 | 141 | 10.20 | 10.02 |
| MCI / MCN 8-15 | 1/3 | 1.0 | 441 | 441 | 181 | 171 | 138 | 162 | 255 | 233 | 118 | 243 | 108 | 132 | 141 | 12.28 | 12.08 |
| MCI / MCN 8-20M | 3 | 1.0 | - | 441 | 181 | 171 | 138 | 162 | - | 233 | 118 | 243 | 108 | 132 | 141 | - | 11.98 |
| MCI / MCN 8-20 | 1/3 | 1.5 | 441 | 441 | 181 | 171 | 138 | 162 | 255 | 233 | 118 | 243 | 108 | 132 | 141 | 13.54 | 13.34 |
| MCI / MCN 8-25 | 1 | 2.0 | 514 | - | 200 | 180 | 195 | 235 | 267 | - | 121 | 245 | 158 | 178 | 177 | 23.08 | - |
| | 3 | 1.5 | - | 441 | 181 | 171 | 138 | 162 | - | 233 | 118 | 243 | 108 | 132 | 141 | - | 13.92 |
| MCI / MCN 8-30 | 1/3 | 2.0 | 514 | 514 | 200 | 180 | 195 | 235 | 267 | 261 | 121 | 245 | 158 | 178 | 177 | 23.14 | 22.22 |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|-----------------|--------------------|----------------------|-------------------------|----------------------|
| | P ₁ [W] | I _{1/1} [A] | P ₁ [W] | I _{1/1} [A] |
| MCI / MCN 8-10 | 760 | 3.3-3.1 | 810 | 2.7-3.1 / 1.6-1.8 |
| MCI / MCN 8-20M | - | - | 1120 | 4.2-4.5 / 2.4-2.6 |
| MCI / MCN 8-15 | 1150 | 5.3-5.1 | 1190 | 3.9-4.4 / 2.3-2.6 |
| MCI / MCN 8-20 | 1420 | 6.8-6.6 | 1450 | 5.0-5.5 / 2.9-3.2 |
| MCI / MCN 8-25 | 1880 | 8.1-7.9 | 1840 | 5.8-6.5 / 3.4-3.8 |
| MCI / MCN 8-30 | 2100 | 9.1-9.0 | 2050 | 6.4-6.9 / 3.7-4.0 |

Performance Curves



Dimensions and Weights

| Model | motor | | Dimensions(mm) | | | | | | | | | | | | | Net weight [kg] | |
|-----------------|----------------|-----|----------------|--------|-----|-----|-----|-----|--------|--------|-----|-----|-----|-----|-----|-----------------|--------|
| | P ₂ | | L1 | | L2 | L3 | L4 | L5 | A | | B | C | D | E | F | 1phase | 3phase |
| | phase | HP | 1phase | 3phase | | | | | 1phase | 3phase | | | | | | | |
| MCI / MCN 12-05 | 3 | 0.5 | - | 403 | 181 | 171 | 138 | 162 | - | 233 | 188 | 243 | 108 | 132 | 141 | - | 9.41 |
| MCI / MCN 12-10 | $\frac{1}{3}$ | 1.0 | 441 | 441 | 181 | 171 | 138 | 162 | 255 | 233 | 188 | 243 | 108 | 132 | 141 | 11.72 | 11.52 |
| MCI / MCN 12-15 | $\frac{1}{3}$ | 1.5 | 441 | 441 | 181 | 171 | 138 | 162 | 255 | 233 | 188 | 243 | 108 | 132 | 141 | 13.38 | 13.18 |
| MCI / MCN 12-20 | $\frac{1}{3}$ | 2.0 | 514 | 514 | 200 | 180 | 195 | 235 | 267 | 261 | 121 | 245 | 158 | 178 | 177 | 22.52 | 21.48 |
| MCI / MCN 12-25 | $\frac{1}{3}$ | 3.0 | 514 | 514 | 200 | 180 | 195 | 235 | 267 | 261 | 121 | 245 | 158 | 178 | 177 | 25.74 | 24.36 |
| MCI / MCN 12-30 | 3 | 4.0 | - | 539 | 230 | 198 | 195 | 245 | - | 284 | 133 | 259 | 174 | 198 | 197 | - | 30.20 |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|-----------------|--------------------|----------------------|-------------------------|----------------------|
| | P ₁ [W] | I _{1/1} [A] | P ₁ [W] | I _{1/1} [A] |
| MCI / MCN 12-05 | - | - | 550 | 2.4-2.8 / 1.4-1.6 |
| MCI / MCN 12-10 | 1170 | 5.3-5.1 | 1190 | 3.6-3.8 / 2.1-2.2 |
| MCI / MCN 12-15 | 1650 | 7.6-7.5 | 1690 | 5.5-6.0 / 3.2-3.5 |
| MCI / MCN 12-20 | 2310 | 10.6-10.4 | 2350 | 7.0-7.4 / 4.0-4.3 |
| MCI / MCN 12-25 | 2980 | 13.1-12.7 | 2880 | 9.0-9.3 / 5.2-5.4 |
| MCI / MCN 12-30 | - | - | 3610 | 11.7-12.1 / 6.8-7.0 |

Horizontal Multistage Centrifugal Pump

Commercial & Industrial



| Power | Max.Flow | Max.Head |
|------------|-----------------|------------|
| 380-3320 W | Up to 230 L/min | Up to 59 M |

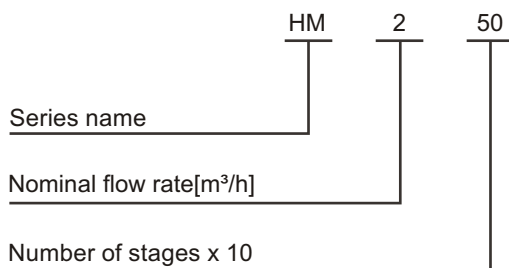
Description

HM series pump is a non-selfpriming, horizontal, multistage, end-suction centrifugal pump. The pump shaft, impeller, chamber and filling plug are made of stainless steel. The HM series pump is a special product to fulfill a wide variety of customer demands. The HM series is available in various sizes and numbers of stages to fulfill different requirements of liquid capacity and pressure. The HM series pump has many advantages, and some of which are compact design, worldwide usage, high reliability, service-friendly, wide performance range, low noise, and customized solutions. The HM series pump is designed to cover a wide variety of applications, ranging from small pressure boosting applications to large industrial systems.

Features

- Easy set-up and installation
- High efficiency for low electricity bill
- Robust construction for better reliability
- Quiet operation for better life quality
- Optional mechanical seal combinations for various applications

Model Code



Application

- Industrial circulation system
- Agricultural irrigation
- Pressure booster system
- Chiller machine & cooling system
- Washing & cleaning system
- Ultrasonic clean machine
- Reverse osmosis system
- Fertilizer / dosing system
- PCB Industrial
- CNC, grinding, lathes, electric discharge, air conditioner machines

General Data

| Motor Spec | |
|----------------------------|--|
| Motor Type | 2 Pole, totally enclosed fan-cooled, squirrel-cage |
| Frequency | 50HZ |
| Standard Voltages | 1Ø220~240V 3Ø220~240/380~415V |
| Insulation Class | F class (155°C) |
| Enclosure Protection Class | IP 54 |
| Nominal Speed | 2850 rpm |
| Operation Conditions | |
| Liquids | Clean liquid without solid particles |
| Liquid Temperature | 0°C~90°C |
| Ambient Temperature | Max. 50°C |
| System Pressure | Max. 10kg |

■ Operating Conditions

The maximum operating pressure depends on the temperature of the pumped liquid, see table:

| Max. operating pressure | 10 kg/cm ² | 6 kg/cm ² |
|-------------------------|-----------------------|----------------------|
| HM 2, HM4 | 0°C to +40°C | +41°C to +90°C |
| HM 8, HM 12 | 0°C to +55°C | +56°C to +90°C |

Min. inlet pressure: According to the NPSH curve + a safety margin of 0.5m.

Max. inlet pressure: Limited by the max. operating pressure.

■ Pipe Connections

| Connection | HM 2 | HM 4 | HM 8 | HM 12 |
|--------------------------|--------|----------|----------|----------|
| Suction Port | Rp 1 | Rp 1 1/4 | Rp 1 1/2 | Rp 1 1/2 |
| Discharge Port | Rp 1 | Rp 1 | Rp 1 1/2 | Rp 1 1/2 |
| Drain Hole, Priming Hole | Rc 3/8 | Rc 3/8 | Rp 1/2 | Rp 1/2 |

■ Mechanical Seals

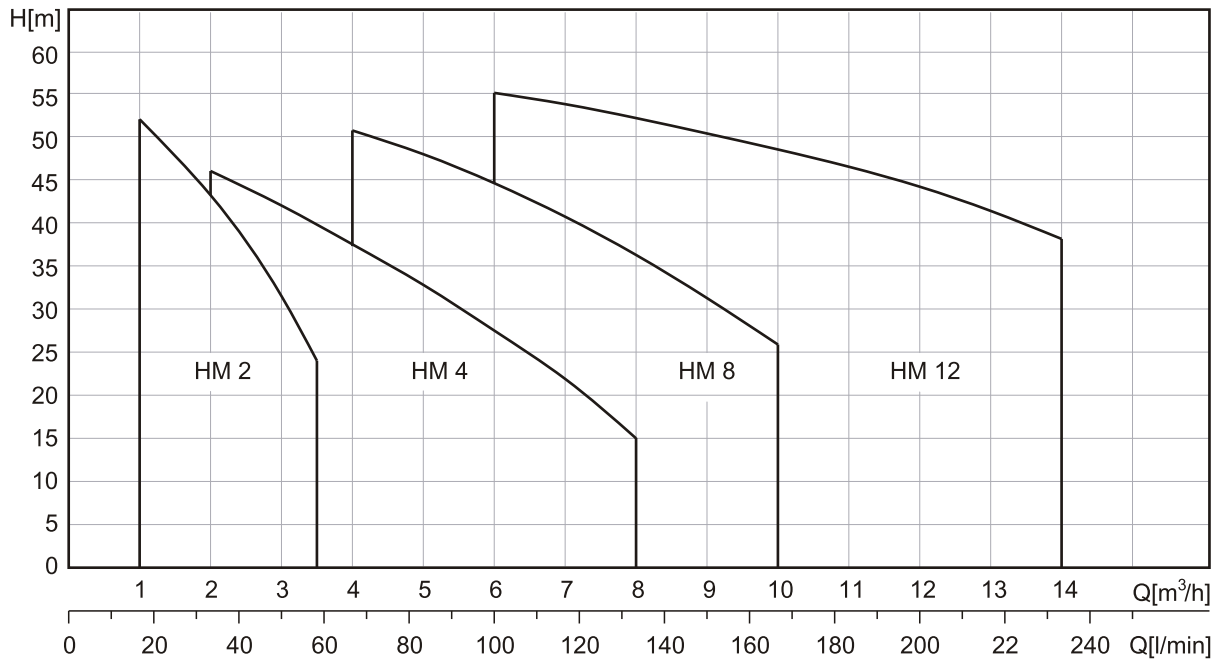
| List of Materials | | |
|---------------------|-----------|----------|
| H: Seal Type | B: Carbon | |
| C: Seal Type | V: Viton | |
| U: Tungsten carbide | E: EPDM | |
| Q: Silicon carbide | | |
| Mechanical seals | HM 2/4 | HM 8/12 |
| HQB | ● | ● |
| HQQ | Optional | Optional |
| HUU | Optional | Optional |
| O-rings | HM 2/4 | HM 8/12 |
| E | ● | ● |
| V | Optional | Optional |

● Standard

■ Liquids to be pumped

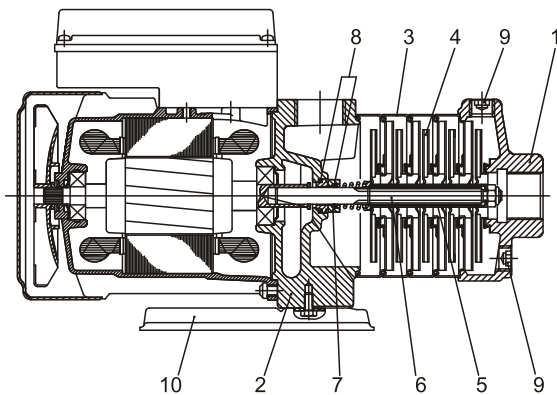
These pump is designed for pumping freely flowing non-corrosive, non-explosive, and non-flammable liquids. The liquids to be pumped must also be free solid matter, sands, fibers, and similar materials. Most common non-highly corrosive watery liquids, hot and cold liquids can be pumped with this pump. The suitability of factors, such as the pH level, contents of chemicals such as chlorides, oils, the temperature of the liquids, etc. Please contact Grampus if there are any questions as to whether certain liquids are suitable for pumping with the pump.

Performance Range

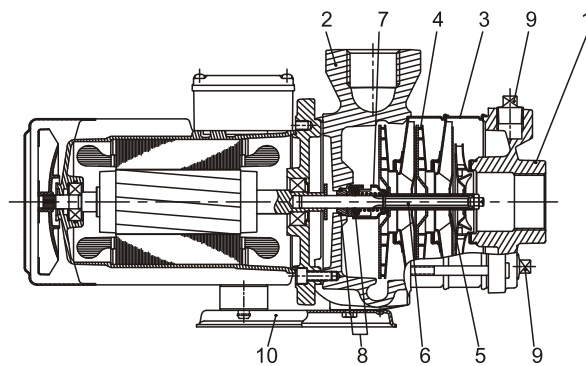


Material Construction

HM 2, HM 4

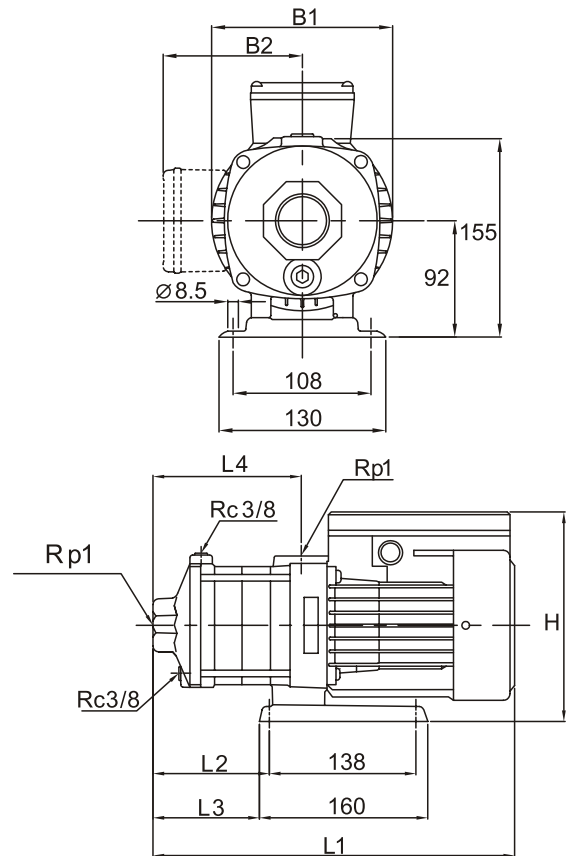
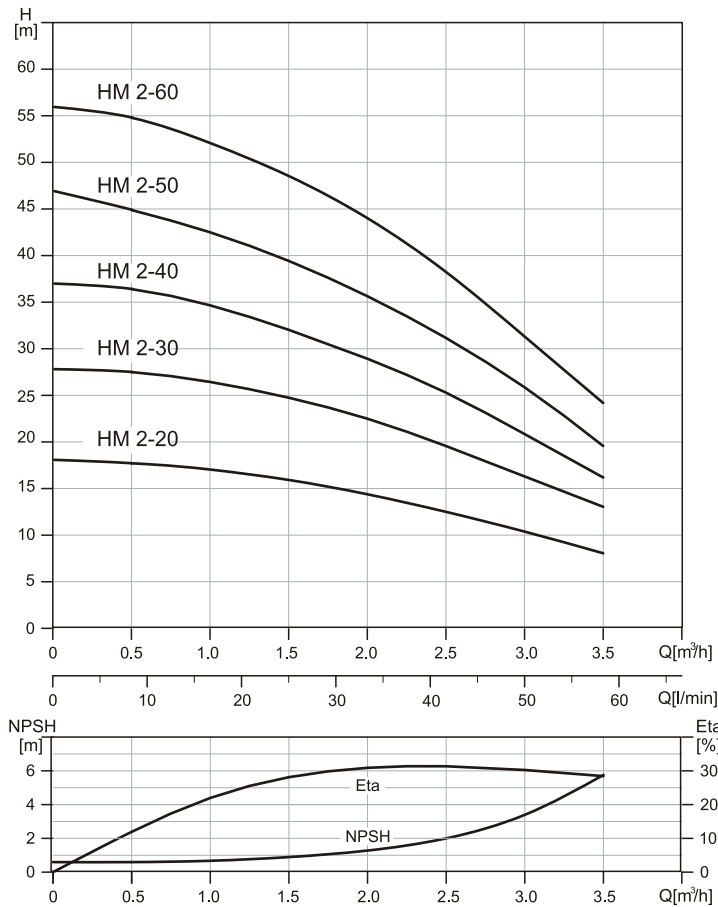


HM 8, HM 12



| Pos. | Description | Materials |
|------|------------------------|--------------------------|
| 1 | Suction chamber | Cast iron |
| 2 | Pump head | Cast iron |
| 3 | Intermediate chamber | SS304 |
| 4 | Impeller | SS304 |
| 5 | Spacing pipe | SS304 |
| 6 | Shaft | SS431 |
| 7 | Mechanical seal | Silicon carbide / Carbon |
| 8 | O-ring | EPDM |
| 9 | Drain and priming plug | Steel |
| 10 | Base plate | Steel |

Performance Curves



Dimensions and Weights

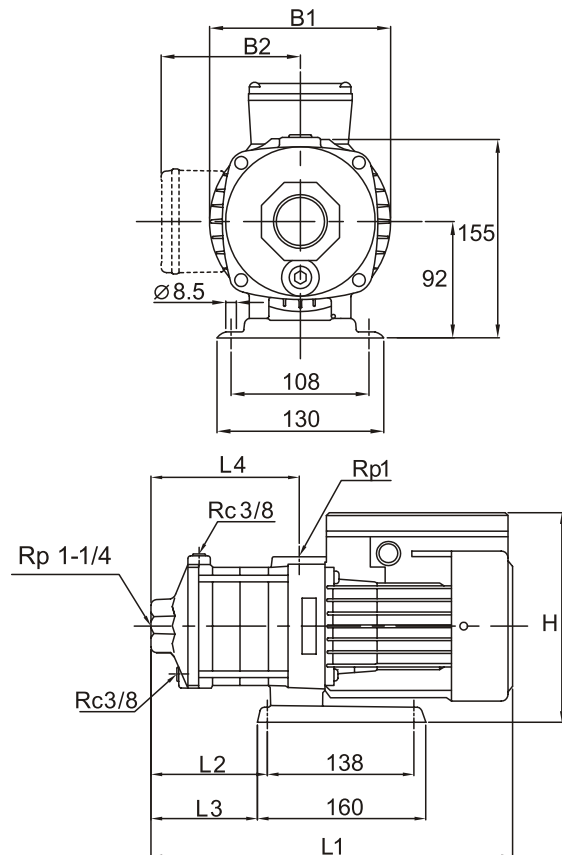
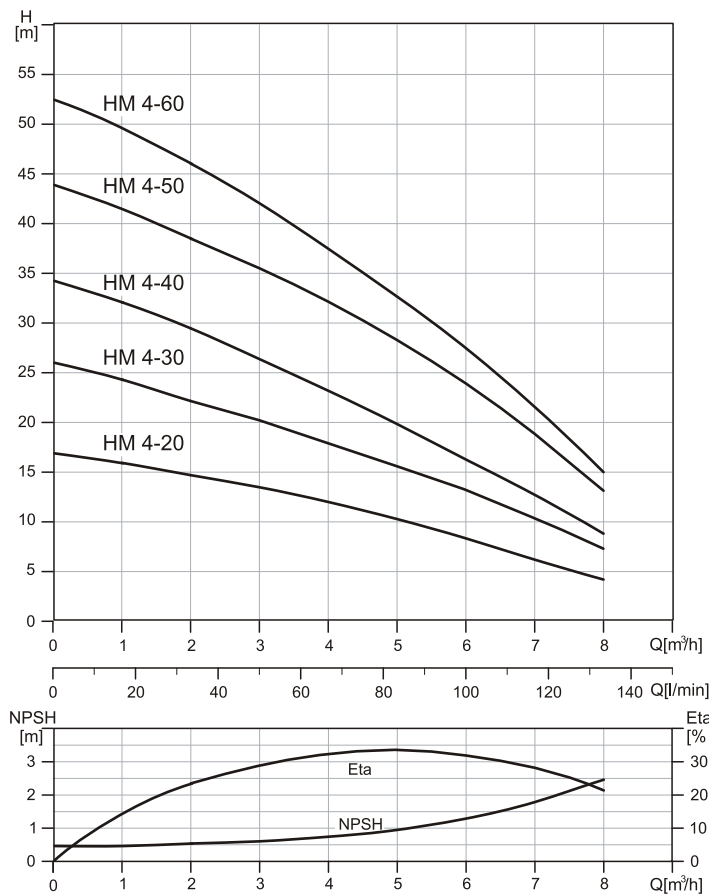
| Model | Motor | | Dimensions(mm) | | | | | | | | Weight (kg) | | |
|---------|----------------|------|----------------|-----|-----|-----|-----|--------|--------|--------|-------------|--------|--------|
| | P ₂ | | L1 | L2 | L3 | L4 | B1 | B2 | | H | | 1phase | 3phase |
| | Phase | HP | | | | | | 1phase | 3phase | 1phase | 3phase | | |
| HM 2-20 | 1 3 | 0.5 | 309 | 75 | 63 | 101 | 141 | 127 | 112 | 228 | 206 | 10.3 | 10.0 |
| HM 2-30 | 1 3 | 0.5 | 327 | 93 | 81 | 119 | 141 | 127 | 112 | 228 | 206 | 10.5 | 10.3 |
| HM 2-40 | 1 3 | 0.5 | 345 | 111 | 99 | 137 | 141 | 127 | 112 | 228 | 206 | 10.8 | 10.5 |
| HM 2-50 | 1 3 | 0.75 | 363 | 129 | 117 | 155 | 141 | 127 | 112 | 228 | 206 | 11.6 | 11.2 |
| HM 2-60 | 1 3 | 0.75 | 381 | 147 | 135 | 173 | 141 | 127 | 112 | 228 | 206 | 11.8 | 11.5 |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|---------|--------------------|---------------------|-------------------------|---------------------|
| | P ₁ [W] | I _{1n} [A] | P ₁ [W] | I _{1n} [A] |
| HM 2-20 | 380 | 1.7-2.0 | 430 | 2.2-2.6 / 1.3-1.5 |
| HM 2-30 | 470 | 2.1-2.2 | 530 | 2.2-2.5 / 1.3-1.45 |
| HM 2-40 | 620 | 2.7-2.8 | 660 | 2.4-2.8 / 1.4-1.6 |
| HM 2-50 | 720 | 3.2-3.1 | 770 | 2.5-2.9 / 1.45-1.7 |
| HM 2-60 | 830 | 3.7-3.6 | 860 | 2.9-3.3 / 1.7-1.9 |

HM 4

Performance Curves



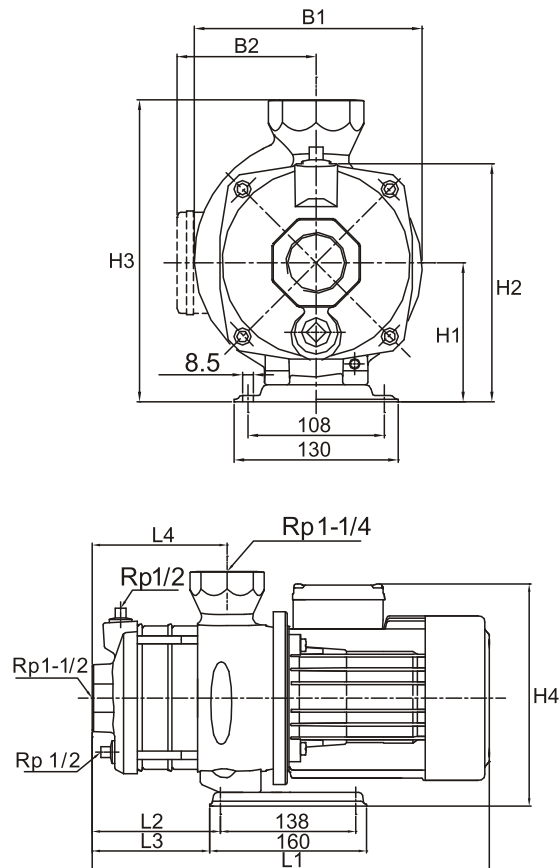
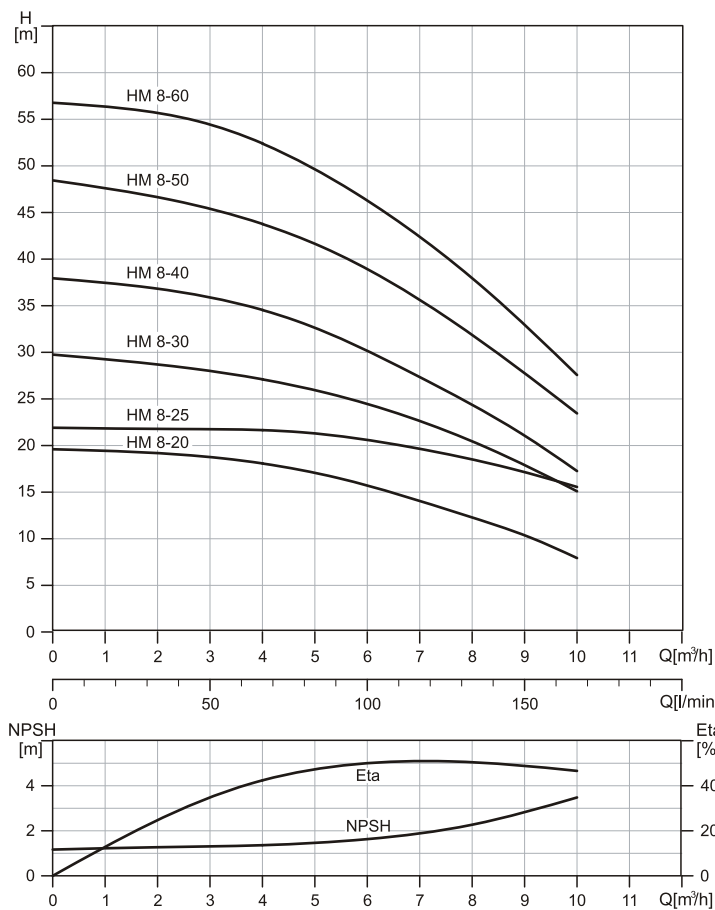
Dimensions and Weights

| Model | Motor | | Dimensions(mm) | | | | | | | | Weight (kg) | | |
|---------|----------------|------|----------------|-----|-----|-----|-----|--------|--------|--------|-------------|--------|--------|
| | P ₂ | | L1 | L2 | L3 | L4 | B1 | B2 | | H | | 1phase | 3phase |
| | Phase | HP | | | | | | 1phase | 3phase | 1phase | 3phase | | |
| HM 4-20 | 1 | 0.5 | 318 | 84 | 72 | 110 | 141 | 127 | 112 | 228 | 206 | 10.4 | 10.1 |
| HM 4-30 | 1 | 0.5 | 344 | 111 | 99 | 137 | 141 | 127 | 112 | 228 | 206 | 10.8 | 10.5 |
| HM 4-40 | 1 | 0.75 | 372 | 138 | 126 | 164 | 141 | 127 | 112 | 228 | 206 | 11.6 | 11.2 |
| HM 4-50 | 1 | 1.0 | 438 | 165 | 153 | 191 | 141 | 127 | 112 | 228 | 206 | 13.4 | 13.1 |
| HM 4-60 | 1 | 1.5 | 465 | 192 | 180 | 218 | 141 | 127 | 112 | 228 | 206 | 14.8 | 14.5 |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|---------|--------------------|---------------------|-------------------------|---------------------|
| | P ₁ [W] | I _{1n} [A] | P ₁ [W] | I _{1n} [A] |
| HM 4-20 | 560 | 2.6-2.5 | 610 | 2.4-2.9 / 1.4-1.7 |
| HM 4-30 | 770 | 3.6-3.5 | 790 | 2.5-2.9 / 1.5-1.7 |
| HM 4-40 | 960 | 4.4-4.1 | 1010 | 3.1-3.3 / 1.8-1.9 |
| HM 4-50 | 1160 | 5.3-5.0 | 1240 | 4.2-4.5 / 2.4-2.6 |
| HM 4-60 | 1430 | 6.7-6.4 | 1460 | 5.1-5.5 / 2.9-3.2 |

Performance Curves



Dimensions and Weights

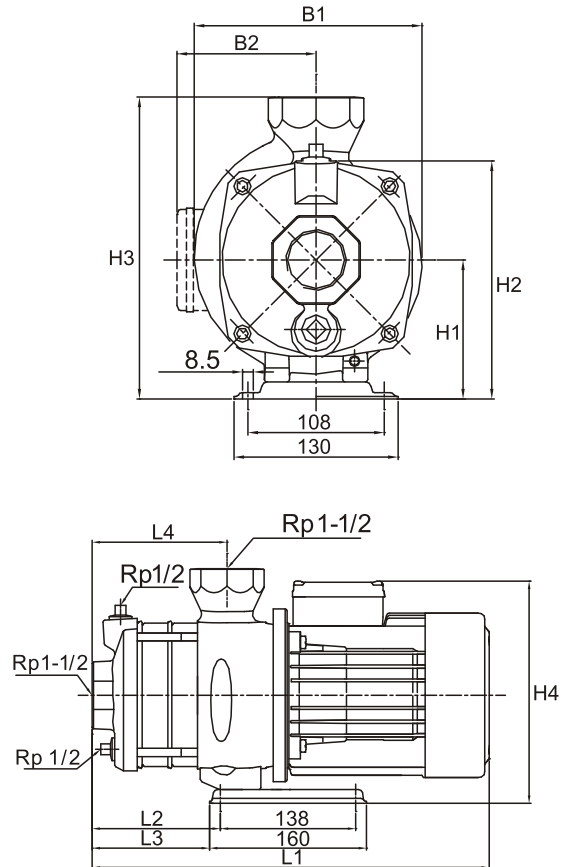
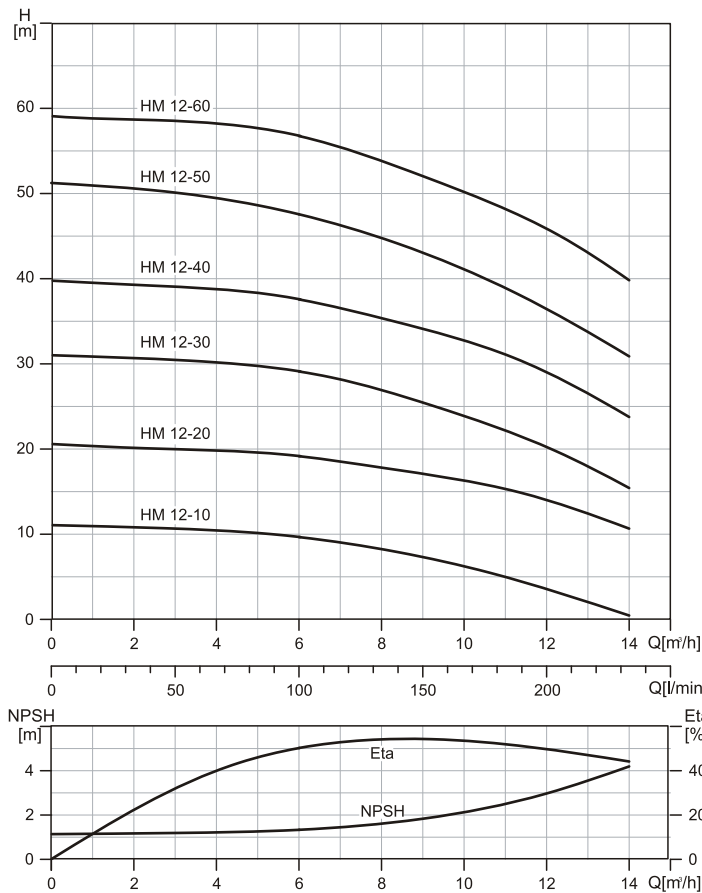
| Model | Motor | | Dimensions(mm) | | | | | | | | | | | | | | Weight (kg) | |
|---------|----------------|------|----------------|--------|-----|-----|-----|--------|--------|--------|--------|-----|-----|-----|--------|--------|-------------|--------|
| | P ₂ | | L1 | | L2 | L3 | L4 | B1 | | B2 | | H1 | H2 | H3 | H4 | | 1phase | 3phase |
| | Phase | HP | 1phase | 3phase | | | | 1phase | 3phase | 1phase | 3phase | | | | 1phase | 3phase | | |
| HM 8-20 | 1 | 0.75 | 320 | 320 | 54 | 42 | 78 | 181 | 181 | 136 | 116 | 112 | 190 | 240 | 248 | 228 | 17.2 | 17 |
| | 3 | | | | | | | | | | | | | | | | | |
| HM 8-25 | 3 | 1.0 | - | 390 | 84 | 72 | 108 | - | 181 | - | 116 | 112 | 190 | 240 | - | 228 | - | 19.1 |
| HM 8-30 | 1 | 1.0 | 390 | 390 | 84 | 72 | 108 | 181 | 181 | 136 | 116 | 112 | 190 | 240 | 248 | 228 | 19.5 | 19.2 |
| | 3 | | | | | | | | | | | | | | | | | |
| HM 8-40 | 1 | 1.5 | 390 | 390 | 84 | 72 | 108 | 181 | 181 | 136 | 116 | 112 | 190 | 240 | 248 | 228 | 20.72 | 20.5 |
| | 3 | | | | | | | | | | | | | | | | | |
| HM 8-50 | 1 | 2.0 | 478 | 420 | 132 | 120 | 138 | 185 | 181 | 156 | 116 | 112 | 190 | 240 | 268 | 228 | 27.9 | 21.4 |
| | 3 | 1.5 | | | | | | | | | | | | | | | | |
| HM 8-60 | 1 | 2.0 | 478 | 478 | 132 | 120 | 138 | 185 | 185 | 156 | 141 | 112 | 190 | 240 | 268 | 253 | 28.1 | 27 |
| | 3 | | | | | | | | | | | | | | | | | |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|---------|--------------------|----------------------|-------------------------|----------------------|
| | P ₁ [W] | I _{1/1} [A] | P ₁ [W] | I _{1/1} [A] |
| HM 8-20 | 760 | 3.3-3.2 | 810 | 2.9-3.3/1.7-1.9 |
| HM 8-25 | - | - | 1060 | 3.5-3.8/2.0-2.2 |
| HM 8-30 | 1130 | 5.2-5.0 | 1260 | 4.3-4.8/2.5-2.8 |
| HM 8-40 | 1390 | 6.3-6.1 | 1520 | 5.7-6.3/3.3-3.7 |
| HM 8-50 | 1940 | 8.2-8.1 | 1860 | 5.7-6.3/3.4-3.7 |
| HM 8-60 | 2090 | 9.0-8.8 | 2110 | 6.5-7.0/3.8-4.1 |

HM 12

Performance Curves



Dimensions and Weights

| Model | Motor | | Dimensions(mm) | | | | | | | | | | | | | | Weight (kg) | | |
|----------|----------------|-----|----------------|--------|-----|-----|-----|--------|--------|--------|--------|-----|-----|-----|--------|--------|-------------|--------|--|
| | P ₂ | | L1 | | L2 | | | B1 | | | B2 | | H1 | | | H4 | | | |
| | Phase | HP | 1phase | 3phase | L2 | L3 | L4 | 1phase | 3phase | 1phase | 3phase | H1 | H2 | H3 | 1phase | 3phase | 1phase | 3phase | |
| HM 12-10 | 3 | 0.5 | - | 320 | 54 | 42 | 78 | - | 181 | - | 116 | 112 | 190 | 240 | - | 228 | - | 17.85 | |
| HM 12-20 | 1 | 1.0 | 360 | 360 | 54 | 42 | 78 | 181 | 181 | 136 | 116 | 112 | 190 | 240 | 248 | 228 | 18.35 | 18.15 | |
| | 3 | | | | | | | | | | | | | | | | | | |
| HM 12-30 | 1 | 1.5 | 390 | 390 | 84 | 72 | 108 | 181 | 181 | 136 | 116 | 112 | 190 | 240 | 248 | 228 | 20.62 | 20.4 | |
| | 3 | | | | | | | | | | | | | | | | | | |
| HM 12-40 | 1 | 2 | 448 | 448 | 102 | 90 | 108 | 185 | 185 | 156 | 141 | 112 | 190 | 240 | 268 | 253 | 27.05 | 26.05 | |
| | 3 | | | | | | | | | | | | | | | | | | |
| HM 12-50 | 1 | 3 | 478 | 450 | 132 | 120 | 138 | 185 | 185 | 156 | 141 | 112 | 190 | 240 | 268 | 253 | 29.22 | 29.3 | |
| | 3 | | | | | | | | | | | | | | | | | | |
| HM 12-60 | 3 | 4 | - | 503 | 132 | 120 | 138 | - | 196 | - | 147 | 125 | 203 | 253 | - | 272 | - | 18.58 | |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|----------|--------------------|----------------------|-------------------------|----------------------|
| | P ₁ [W] | I _{1/1} [A] | P ₁ [W] | I _{1/1} [A] |
| HM 12-10 | - | - | 590 | 2.8-3.1 / 1.6-1.8 |
| HM 12-20 | 1160 | 5.3-5.1 | 1170 | 3.8-4.0 / 2.2-2.3 |
| HM 12-30 | 1680 | 7.8-7.4 | 1690 | 5.7-6.5 / 3.3-3.8 |
| HM 12-40 | 2400 | 11.0-10.6 | 2350 | 7.3-7.6 / 4.2-4.4 |
| HM 12-50 | 2910 | 12.7-12.2 | 2820 | 8.8-9.0 / 5.1-5.2 |
| HM 12-60 | - | - | 3320 | 10.6-11.4 / 6.1-6.6 |

Horizontal Multistage Centrifugal Pump

Commercial & Industrial



| Power | Max.Flow | Max.Head |
|------------|-----------------|------------|
| 380-1460 W | Up to 135 L/min | Up to 57 M |

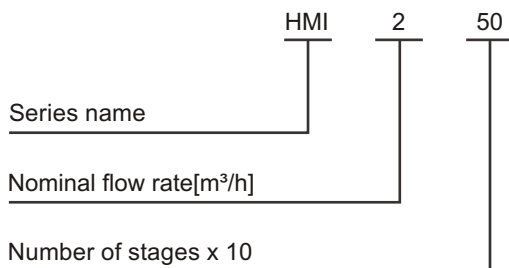
Description

HMI series pump is a non-selfpriming, horizontal, multistage, end-suction centrifugal pump. All parts of HMI series pump in contact with the liquid are made of stainless steel. The HMI series pump is a special product to fulfill a wide variety of customer demands. The HMI series is available in various sizes and numbers of stages to fulfill different requirements of flow and pressure. The HMI series pump has many advantages, and some of which are compact design, worldwide usage, high reliability, service-friendly, wide performance range, low noise, and customized solutions. The HMI series pump is designed to cover a wide variety of applications, ranging from small pressure boosting applications to large industrial systems.

Features

- All parts contact with liquid are made of stainless steel
- Easy set-up and installation
- High efficiency for low electricity bill
- Robust construction for better reliability
- Quiet operation for better life quality
- Optional mechanical seal combinations for various applications

Model Code



Application

- Industrial circulation system
- Agricultural irrigation
- Water treatment
- Pressure booster system
- Chiller machine & cooling system
- Washing & cleaning system
- Ultrasonic clean machine
- Reverse osmosis system
- PCB Industrial
- CNC, grinding, lathes, electric discharge, air conditioner machines

General Data

| Motor Spec | |
|----------------------------|--|
| Motor Type | 2 Pole, totally enclosed fan-cooled, squirrel-cage |
| Frequency | 50HZ |
| Standard Voltages | 1Ø220~240V |
| | 3Ø220~240/380~415V |
| Insulation Class | F class (155°C) |
| Enclosure Protection Class | IP 54 |
| Nominal Speed | 2850 rpm |
| Operation Conditions | |
| Liquids | Clean liquid without solid particles |
| Liquid Temperature | 0°C~90°C |
| Ambient Temperature | Max. 50°C |
| System Pressure | Max. 10kg |

■ Operating Conditions

The maximum operating pressure depends on the temperature of the pumped liquid, see table:

| Max. operating pressure | 10 kg/cm ² | 6 kg/cm ² |
|-------------------------|-----------------------|----------------------|
| HMI 2, HMI 4 | 0°C to +40°C | +41°C to +90°C |

Min. inlet pressure: According to the NPSH curve + a safety margin of 0.5m.

Max. inlet pressure: Limited by the max. operating pressure.

■ Pipe Connections

| Connection | HMI 2 | HMI 4 |
|--------------------------|--------|----------|
| Suction Port | Rp 1 | Rp 1 1/4 |
| Discharge Port | Rp 1 | Rp 1 |
| Drain Hole, Priming Hole | Rc 3/8 | Rc 3/8 |

■ Mechanical Seals

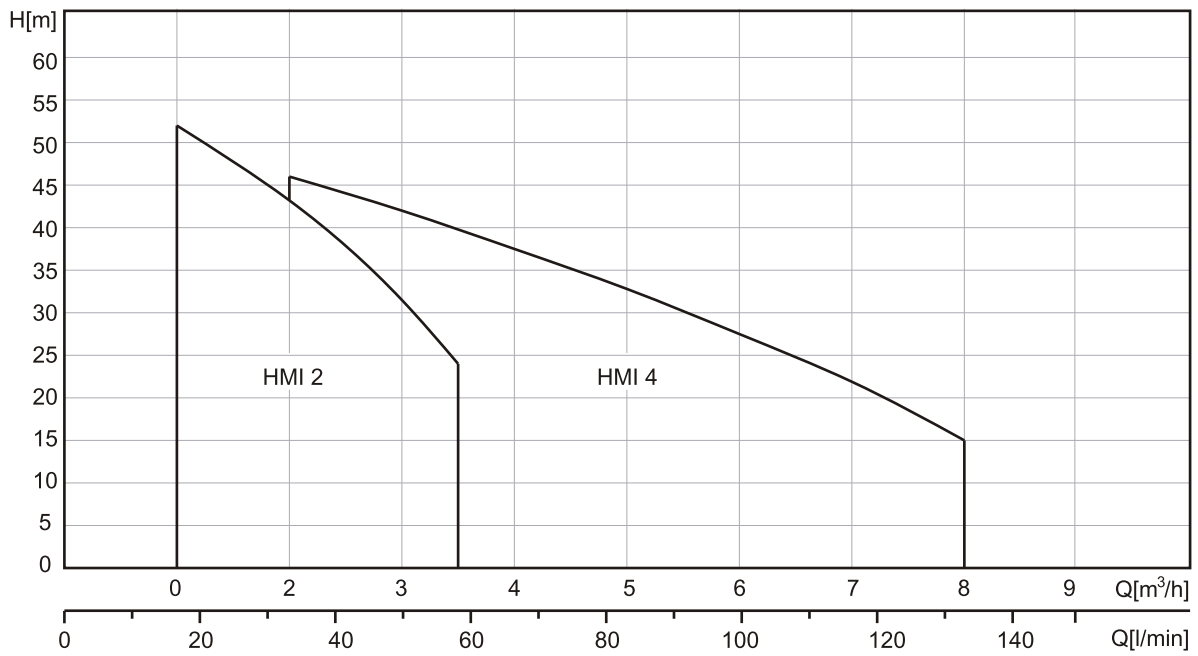
| List of Materials | | |
|---------------------|--------------|----------|
| U: Tungsten carbide | E: EPDM | |
| Q: Silicon carbide | V: Viton | |
| B: Carbon | C: Seal Type | |
| H: Seal Type | | |
| Mechanical seals | HMI 2 | HMI 4 |
| HQB | ● | ● |
| HQQ | Optional | Optional |
| HUU | Optional | Optional |
| O-rings | HM 2/4 | HM 8/12 |
| E | ● | ● |
| V | Optional | Optional |

● Standard

■ Liquids to be pumped

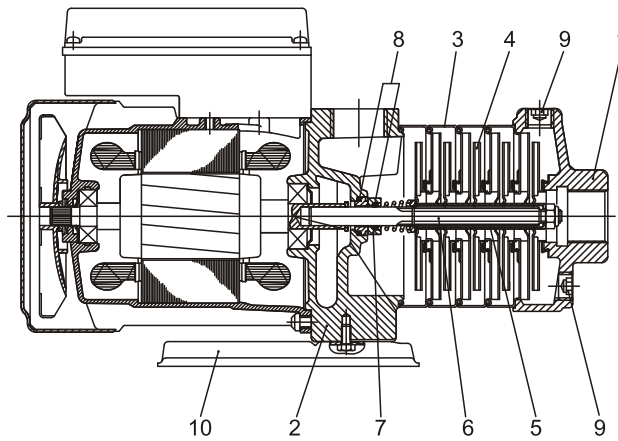
These pumps are designed for pumping freely flowing non-corrosive, non-explosive, and non-flammable liquids. The liquids to be pumped must also be free solid matter, sands, fibers, and similar materials. Most common non-highly corrosive watery liquids, hot and cold liquids can be pumped with this pump. The suitability of factors, such as the pH level, contents of chemicals such as chlorides, oils, the temperature of the liquids, etc. Please contact Grampus if there are any questions as to whether certain liquids are suitable for pumping with the pump.

Performance Range



Material Construction

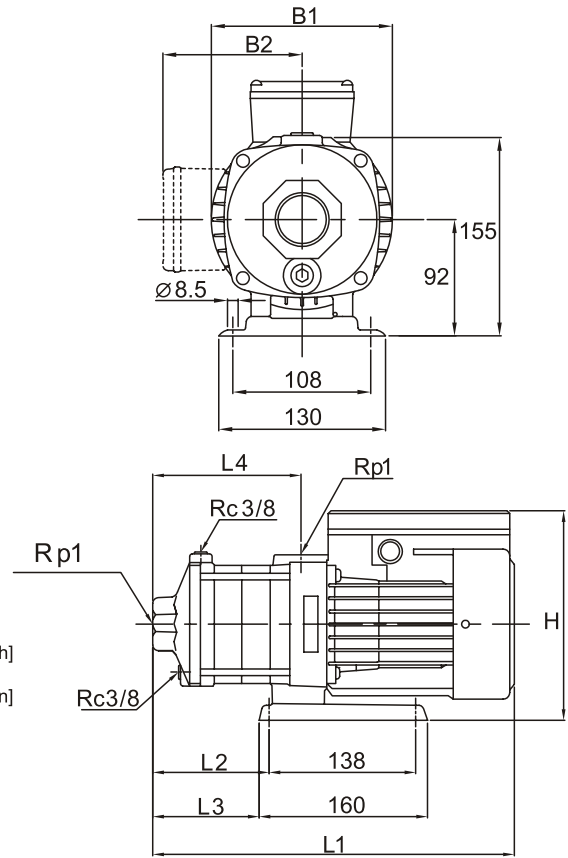
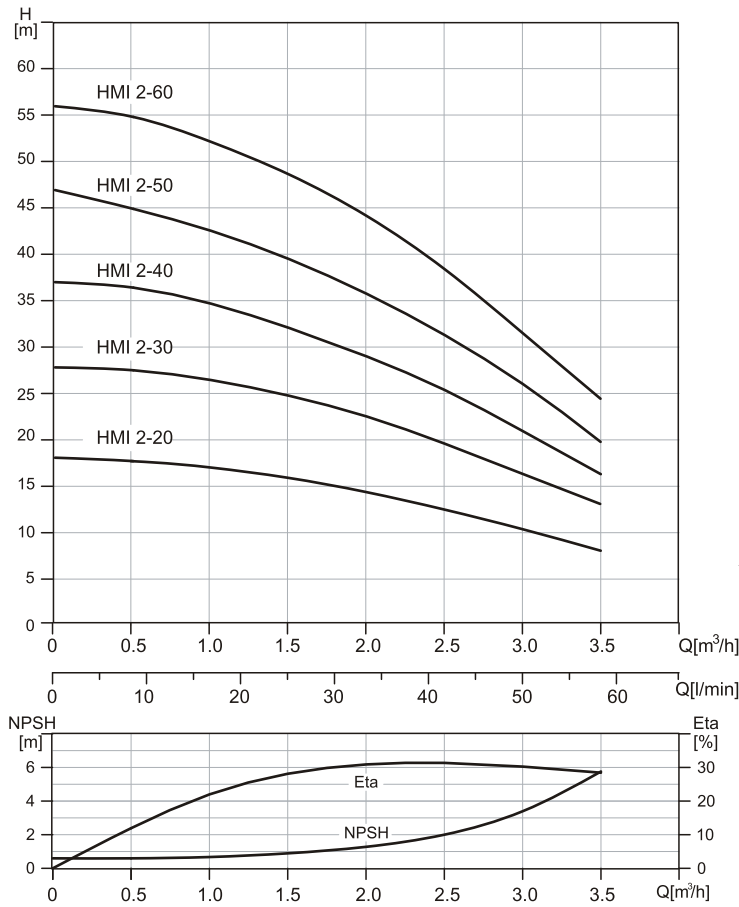
HMI 2, HMI 4



| Pos. | Description | Materials |
|------|------------------------|--------------------------|
| 1 | Suction chamber | Ss304 |
| 2 | Pump head | SS304 |
| 3 | Intermediate chamber | SS304 |
| 4 | Impeller | SS304 |
| 5 | Spacing pipe | SS304 |
| 6 | Shaft | SS431 |
| 7 | Mechanical seal | Silicon carbide / Carbon |
| 8 | O-ring | EPDM |
| 9 | Drain and priming plug | SS304 |
| 10 | Base plate | SS304 |

HMI 2

Performance Curves



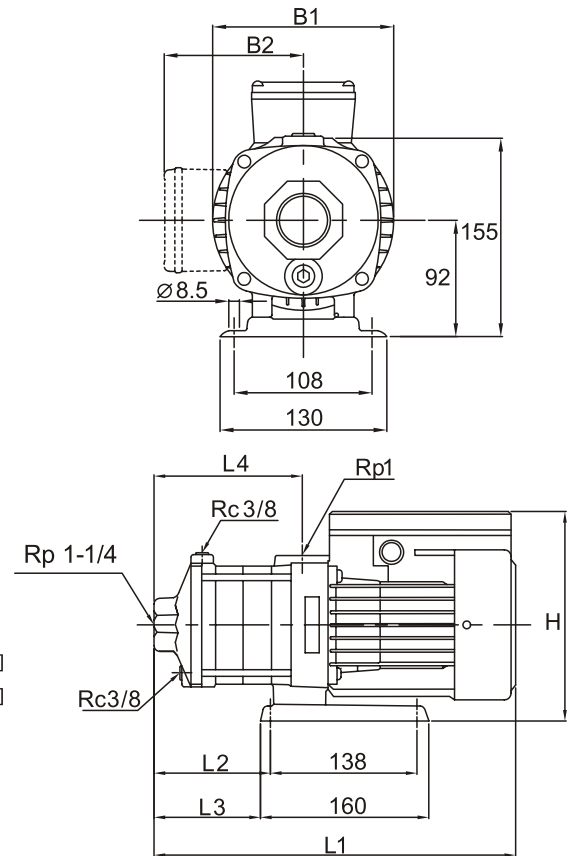
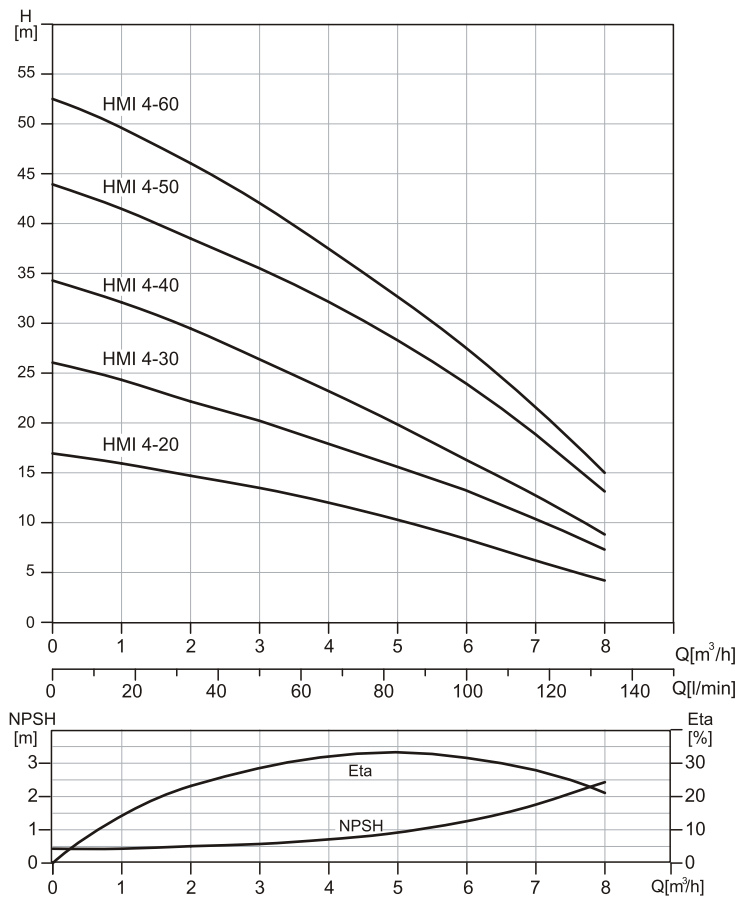
Dimensions and Weights

| Model | Motor | | Dimensions(mm) | | | | | | | | Weight (kg) | | |
|----------|----------------|------|----------------|-----|-----|-----|-----|--------|--------|--------|-------------|--------|--------|
| | P ₂ | | L1 | L2 | L3 | L4 | B1 | B2 | | H | | 1phase | 3phase |
| | Phase | HP | | | | | | 1phase | 3phase | 1phase | 3phase | | |
| HMI 2-20 | 1/3 | 0.5 | 309 | 75 | 63 | 101 | 141 | 127 | 112 | 228 | 206 | 9.1 | 8.8 |
| HMI 2-30 | 1/3 | 0.5 | 327 | 93 | 81 | 119 | 141 | 127 | 112 | 228 | 206 | 9.4 | 9.1 |
| HMI 2-40 | 1/3 | 0.5 | 345 | 111 | 99 | 137 | 141 | 127 | 112 | 228 | 206 | 9.6 | 9.4 |
| HMI 2-50 | 1/3 | 0.75 | 363 | 129 | 117 | 155 | 141 | 127 | 112 | 228 | 206 | 10.4 | 10.1 |
| HMI 2-60 | 1/3 | 0.75 | 381 | 147 | 135 | 173 | 141 | 127 | 112 | 228 | 206 | 10.7 | 10.3 |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 / 380-415 V | |
|----------|--------------------|---------------------|-------------------------|---------------------|
| | P ₁ [W] | I _{1n} [A] | P ₁ [W] | I _{1n} [A] |
| HMI 2-20 | 380 | 1.7-2.0 | 430 | 2.2-2.6 / 1.3-1.5 |
| HMI 2-30 | 470 | 2.1-2.2 | 530 | 2.2-2.5 / 1.3-1.45 |
| HMI 2-40 | 620 | 2.7-2.8 | 660 | 2.4-2.8 / 1.4-1.6 |
| HMI 2-50 | 720 | 3.2-3.1 | 770 | 2.5-2.9 / 1.45-1.7 |
| HMI 2-60 | 830 | 3.7-3.6 | 860 | 2.9-3.3 / 1.7-1.9 |

Performance Curves



Dimensions and Weights

| Model | Motor | | Dimensions(mm) | | | | | | | | Weight (kg) | | |
|----------|----------------|------|----------------|-----|-----|-----|-----|--------|--------|--------|-------------|--------|--------|
| | P ₂ | | L1 | L2 | L3 | L4 | B1 | B2 | | H | | 1phase | 3phase |
| | Phase | HP | | | | | | 1phase | 3phase | 1phase | 3phase | | |
| HMI 4-20 | 1 3 | 0.5 | 318 | 84 | 72 | 110 | 141 | 127 | 112 | 228 | 206 | 9.2 | 9.0 |
| HMI 4-30 | 1 3 | 0.5 | 344 | 111 | 99 | 137 | 141 | 127 | 112 | 228 | 206 | 9.6 | 9.3 |
| HMI 4-40 | 1 3 | 0.75 | 372 | 138 | 126 | 164 | 141 | 127 | 112 | 228 | 206 | 10.4 | 10.1 |
| HMI 4-50 | 1 3 | 1.0 | 438 | 165 | 153 | 191 | 141 | 127 | 112 | 228 | 206 | 11.3 | 12.0 |
| HMI 4-60 | 1 3 | 1.5 | 465 | 192 | 180 | 218 | 141 | 127 | 112 | 228 | 206 | 13.6 | 13.4 |

Electrical Data

| Model | 1 x 220-240 V | | 3 x 220-240 /380-415 V | |
|----------|--------------------|----------------------|------------------------|----------------------|
| | P ₁ [W] | I _{1/3} [A] | P ₁ [W] | I _{1/3} [A] |
| HMI 4-20 | 560 | 2.6-2.5 | 610 | 2.4-2.9 / 1.4-1.7 |
| HMI 4-30 | 770 | 3.6-3.5 | 790 | 2.5-2.9 / 1.5-1.7 |
| HMI 4-40 | 960 | 4.4-4.1 | 1010 | 3.1-3.3 / 1.8-1.9 |
| HMI 4-50 | 1160 | 5.3-5.0 | 1240 | 4.2-4.5 / 2.4-2.6 |
| HMI 4-60 | 1430 | 6.7-6.4 | 1460 | 5.1-5.5 / 2.9-3.2 |



- Horizontal Multistage Centrifugal Pump
- Vertical Multistage Centrifugal Pump
- Vertical Immersion Centrifugal Pump
- Wastewater Submersible Pump
- Deep Well Submersible Pump



Authorized Distributor

-
1. Product supported by continuously research and improvement. We reserve the right to modify the specifications, capabilities and accessories of all products.
 2. Please inform the detailed type, application, phase, power, caliber, voltage and head before order. It is easy to obtain a suitable model.
 3. All the capabilities and specifications are subject to the products. If the voltage and frequency is specific standard, please customize in advance.