

# Magnetic Drive Pump



# Compact and Highly Efficient Plastics Magnetic Drive Centrifugal Pump

high efficiency  
saving of energy  
low vibration  
low noise

## ■ Features

- No leakage of liquids thanks to the magnetic coupling structure
- Simple handling and easy maintenance
- Connection by hose, union, flange, etc. according to the application
- Significantly longer life for the bearing
- RoHS compliance for all models

## ■ Applications

Chemical liquid transfer

Surface treatment

Constant temperature baths

Medical devices

Physicochemical devices

Incorporation into various kinds of other devices



## Model code

**CPM - 15 F H - B SP**

① Pump series <b>CPM:</b> Standard <b>CPH:</b> High pump head	② Pump rated output Ref. To the spec. list	③ O-ring material ※ <b>F:</b> FPM <b>E:</b> EPDM ※FPM : Standard	④ Connection method <b>H:</b> Hose <b>U:</b> Screw <b>X:</b> Flange ※Union joints are supplied with the screw connection type pump. ※Companion flanges are supplied with the flange connection type pump.	⑤ Voltage and frequency <b>Blank:</b> 1 φ, 100V/50, 60 Hz <b>A:</b> 1 φ, 100V/60 Hz or 100V/50, 60 Hz <b>B:</b> 1 φ, 100V/50 Hz <b>C:</b> 1 φ, 200V/60 Hz or 200V/50, 60 Hz <b>D:</b> 1 φ, 200V/50 Hz <b>E:</b> 1 φ, 220 to 240V/50, 60 Hz <b>F:</b> 1 φ, 240V/50 Hz <b>G:</b> 3 φ, 200V/60 Hz or 200V/50, 60 Hz <b>H:</b> 3 φ, 200V/50 Hz ※For further information on applicable voltage and UL approval, contact NIKKISO EIKO	⑥ Special specifications <b>Blank:</b> None <b>SP:</b> Provided
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## Exploded view



### List of major component materials

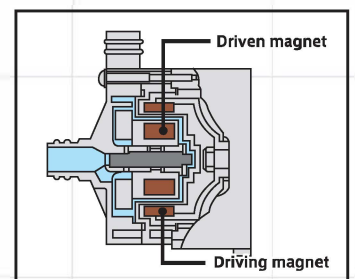
No.	Part name	Material
1	Pump casing	Poly-Propylene with glass fiber
2	Impeller	Poly-Propylene with glass fiber
3	Bearing	PTFE
4	Thrust washer	Alumina ceramic
5	O-ring	FPM/EPDM
6	Shaft	Alumina ceramic
7	Rear casing	Poly-Propylene with glass fiber

## Operating conditions

- Ambient temperature: 0 to 40°C
- Ambient humidity : 95%RH or less (No dew condensation allowed.)
- Liquid temperature : 0 to 60°C  
For further information on handling of high-temperature liquid, contact NIKKISO EIKO
- Liquid viscosity: below 30 mPa·s
- Following liquids cannot be used.
  - Liquids containing iron or nickel powder particles
  - Liquids which may corrode structural materials
  - Liquids containing slurry
- Cautions on use
  - This magnetic drive pump is not a self-priming pump.  
Therefore, always use this pump under flooded conditions.
  - Dry running is strictly prohibited.

## Operating principles

This magnetic pump is a centrifugal pump that utilizes magnetic forces of magnets. A driving magnet mounted at the top end of the motor transmits the power to a driven magnet to rotate the pump impeller. The pump has a structure that the driving magnet and the driven magnet are individually mounted. This does not require any shaft seal part, such as mechanical seal. Additionally, the liquid contact parts are sealed completely. This ensures the pump structure free from liquid leakage.



# CPM-15·20·45·60

100V

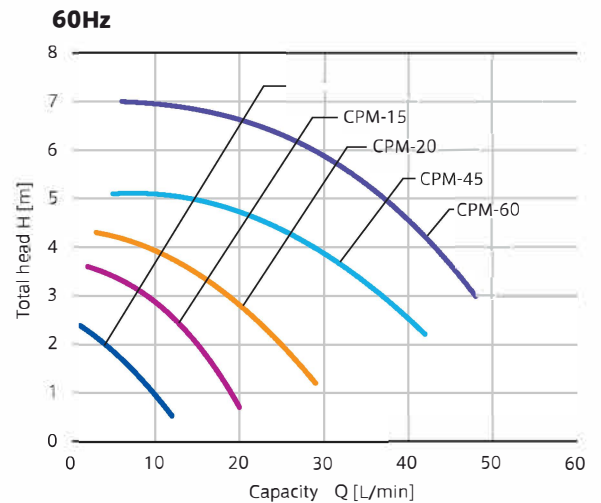
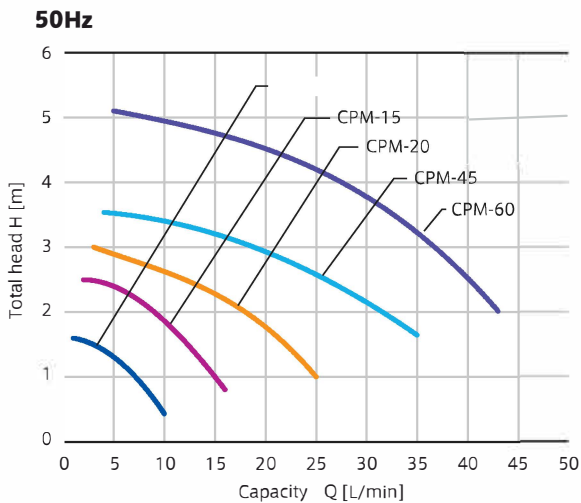


(L/min)	Max. flow rate	Model	Max. discharge head (m)
50	25	Rated output (W)	0 5 10
15		<b>CPM-15</b> 10/15 W	2.5
20		60Hz	3.6
25		<b>CPM-20</b> 15/20 W	3
28		60Hz	4.2
38		<b>CPM-45</b> 35/45 W	3.8
45		60Hz	5.5
43		<b>CPM-60</b> 40/60 W	5.1
48		60Hz	6.8

## List of specifications

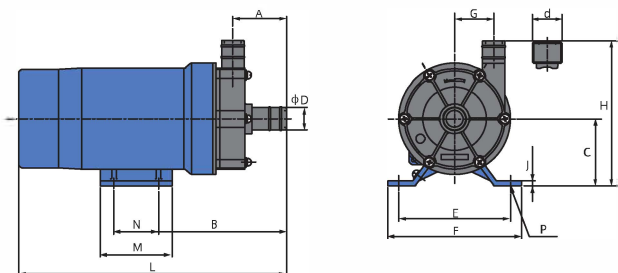
Series	Model	Connection		Power frequency (Hz)	Max. capacity (L/min)	Max. discharge head (m)	Specific gravity limit	Rated output (W)	Power consumption (W)	Weight (kg)
		Hose	Screw							
CPM	CPM-15	14mm	G3/4	50/60	15/20	2.5/3.6	1.3	10/15	22/30	1.7
	CPM-20			50/60	25/28	3/4.2		15/20	32/43	1.7
	CPM-45	20mm		50/60	38/45	3.8/5.5		35/45	55/77	3.4
	CPM-60			50/60	43/48	5.1/6.8		40/60	70/110	3.4

## Performance curves



## Dimensional outline drawing

CPM15·20·45·60



Model	CPM-15	CPM-20	CPM-45	CPM-60
A	39	39	48	48
B	80	80	114.5	114.5
C	45	45	60	60
Dφ (d)	14 (G3/4)	17 (G3/4)	20 (G3/4)	20 (G3/4)
E	90	90	100	100
F	106	106	120	120
G	25	25	35	35
H	108	108	130	130
J	4	4	4.5	4.5
L	179	179	240	240
M	60	60	64	64
N	44	44	40	40
P	4 x 6 x 10 Slotted hole	4 x 6 x 10 Slotted hole	4-φ9	4-φ9

# CP05·08 CH08

100V



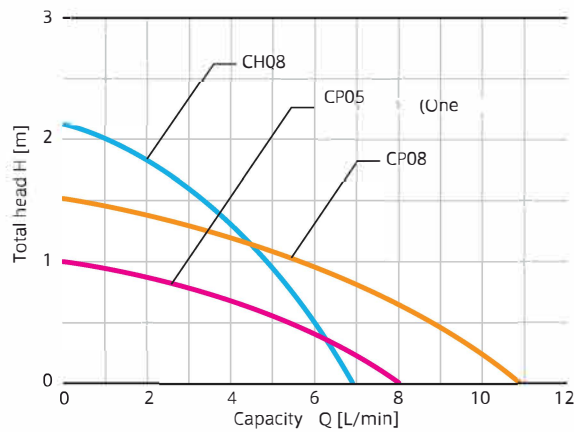
## List of specifications

Model	Connection	Power frequency (Hz)	Max. capacity (L/min)	Max. discharge head (m)	Specific gravity limit	Rated output (W)	Power consumption (W)	Weight (kg)
	Hose							
CP05	14mm	50/60	8/9	1.0/1.4	1.3	3	19/19	1.0
CP08		50/60	11/12	1.5/2.1				
CH08		50/60	7/8	2.1/2.8		6	29/29	

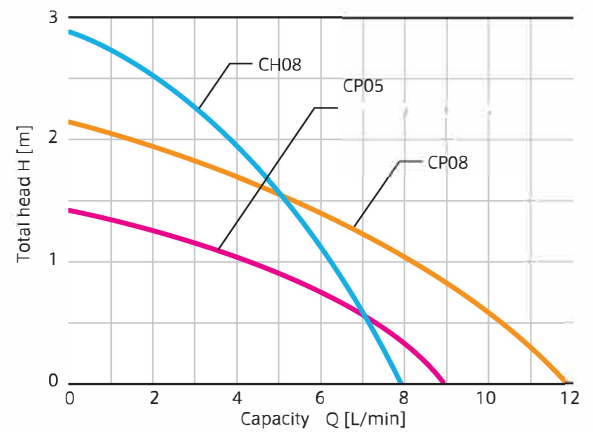
※For further information on detailed specifications, contact NIKKISO EIKO

## Performance curves

50Hz



60Hz



## Dimensional outline drawing

CP05·08 CH08



Model	CP05,08	CH08
A	26.5	26.5
B	72	72
C	45	45
Dφ	14	14
E	60	60
F	75	75
G	17	19.5
H	90	90
J	1.6	1.6
L	112	112
M	30	30
N	-	-
P	2-φ6	2-φ6

**⚠ Notice for the safety operation :**  
To use a pump for safety, be sure to read the instruction manual before your operation.

Product(s) (including parts, technical data or information thereto) described in this catalog shall be subject to export control laws and regulations of Japan or the US. You need to obtain the approval from appropriate government(s) when you export if such laws and regulations require.

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