

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 - 250 F H - B SP

① Pump series

CPM: Standard

CPH: High pump head

② Pump rated output

Ref. To the spec. list

③ O-ring material

※**F:** FPM

E: EPDM

※FPM : Standard

④ Connection method

H: Hose

U: Screw

X: 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

Blank: 1 φ, 100V/50, 60 Hz

A: 1 φ, 100V/60 Hz or 100V/50, 60 Hz

B: 1 φ, 100V/50 Hz

C: 1 φ, 200V/60 Hz or 200V/50, 60 Hz

D: 1 φ, 200V/50 Hz

E: 1 φ, 220 to 240V/50, 60 Hz

F: 1 φ, 240V/50 Hz

G: 3 φ, 200V/60 Hz or 200V/50, 60 Hz

H: 3 φ, 200V/50 Hz

※For further information on applicable voltage and UL approval, contact NIKKISO EIKO

⑥ Special specifications

Blank: None

SP: Provided

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 containing slurry
- Liquids which may corrode structural materials

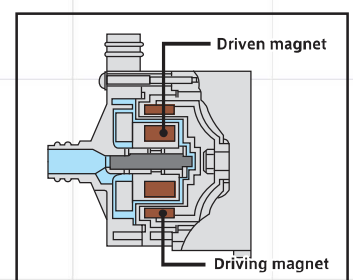
□ Cautions on use

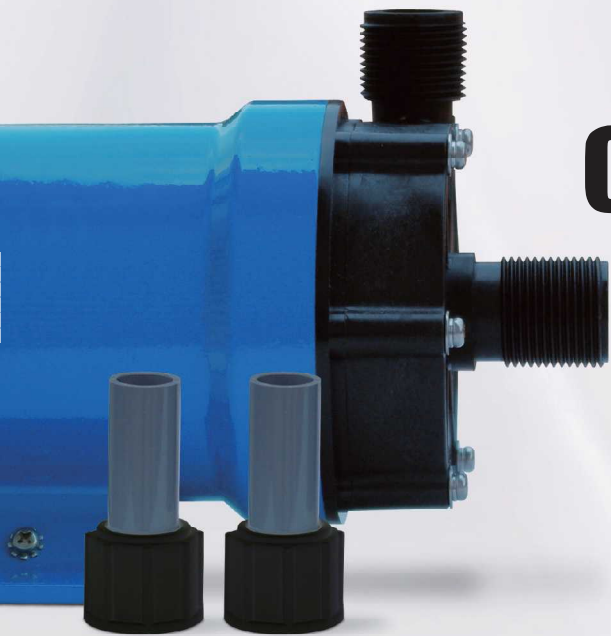
- This magnetic drive pump is not a self-priming pump. Therefore, always use this pump under flooded conditions.
- Dry running is strictly prohibited.

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-6·15·20·45·60



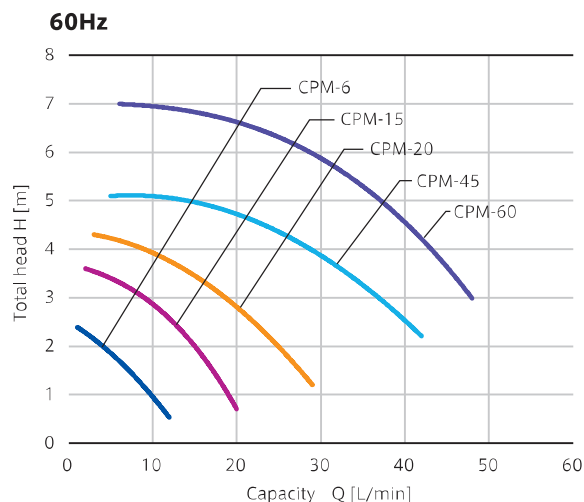
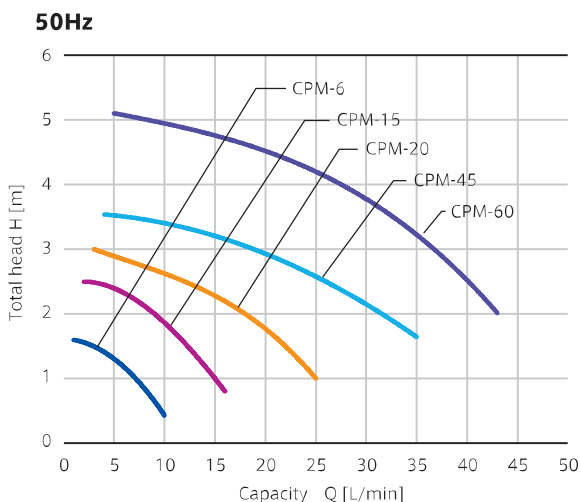
Flange connection: Hose connection Union connection

(L/min)	Max. flow rate	Model	Max. discharge head (m)
50	25	Rated output (W)	0 5 10
	10	CPM-6 50Hz	1.7
	12	4/6 W 60Hz	2.5
	15	CPM-15 50Hz	2.5
	20	10/15 W 60Hz	3.6
	25	CPM-20 50Hz	3
	28	15/20 W 60Hz	4.2
	38	CPM-45 50Hz	3.8
	45	35/45 W 60Hz	5.5
	43	CPM-60 50Hz	5.1
	48	40/60 W 60Hz	6.8

List of specifications

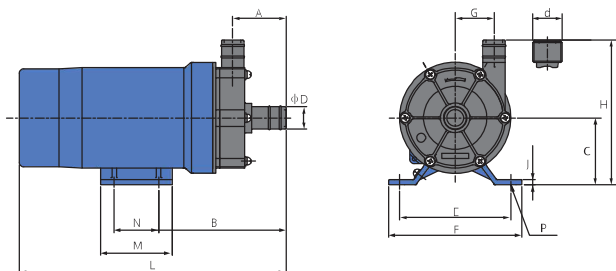
Series	Model	Connection		Power frequency (Hz)	Max. capacity (L/min)	Max. discharge head (m)	Specific gravity limit	Rated output (W)	Power consumption (W)	Weight (kg)
		Hose	Screw							
CPM	CPM-6	14mm	—	50/60	10/12	1.7/2.5	1.3	4/6	18/20	0.7
	CPM-15		50/60	15/20	2.5/3.6	10/15		22/30	1.7	
	CPM-20	17mm	G3/4	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

CPM-6·15·20·45·60



Model	CPM-6	CPM-15	CPM-20	CPM-45	CPM-60
A	31	39	39	48	48
B	73	80	80	114.5	114.5
C	35	45	45	60	60
D φ (d)	14	14 (G3/4)	17 (G3/4)	20 (G3/4)	20 (G3/4)
E	63	90	90	100	100
F	80	106	106	120	120
G	17.5	25	25	35	35
H	82	108	108	130	130
J	2.5	4	4	4.5	4.5
L	134	179	179	240	240
M	30	60	60	64	64
N	-	44	44	40	40
P	1 x 5.5 x 10 Slotted hole	4 x 6 x 10 Slotted hole	4 x 6 x 10 Slotted hole	4-φ9	4-φ9



CPM-100-160-250

100V

200V

FLANGE

HOOS

UNION

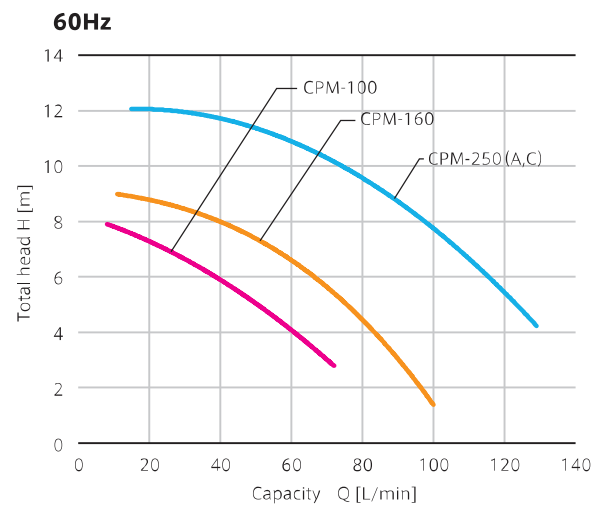
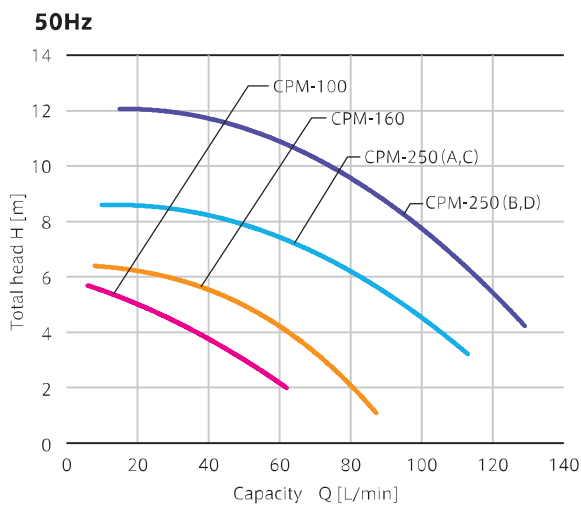
Flange connection Hose connection Union connection

(L/min)	Max. flow rate	Model	Max. discharge head (m)
150	100	CPM-100 65/100 W	0
50	0		15
	62	50Hz	5.7
	72	60Hz	8
	87	CPM-160 120/160 W	6.3
	100		8.9
	115	50Hz	8.6
150	150	CPM-250(A,C) 150/250 W	0
	0		15
	125	60Hz	12
		CPM-250(B,D) 250 W	12.3

List of specifications

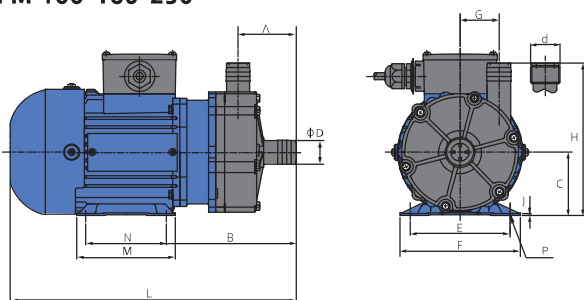
Series	Model	Connection		Power frequency (Hz)	Max. capacity (L/min)	Max. discharge head (m)	Specific gravity limit	Rated output (W)	Power consumption (W)	Weight (kg)
		Hose	Screw							
CPM	CPM-100	26mm	G1	50/60	62/72	5.7/8	1.2	65/100	105/155	4.8
	CPM-160			50/60	87/100	6.3/8.9		120/160	160/230	5.4
	CPM-250(A,C)	26.5mm	G1	50/60	115/150	8.6/12	100V: 1.1 200V: 1.2	150/250	A: 270/410 C: 260/400	8.0
	CPM-250(B,D)			50/—	125	12.3		250	B: 430 D: 410	

Performance curves



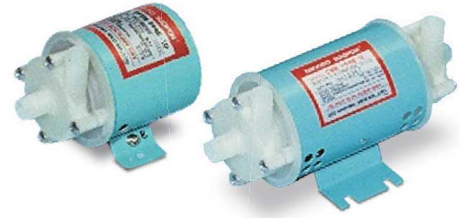
Dimensional outline drawing

CPM-100-160-250



Model	CPM-100	CPM-160	CPM-250
A	48	48	65
B	114	114	145
C	63	63	71
D Φ (d)	26 (G1)	26 (G1)	26.5 (G1)
E	107	107	112
F	133	133	135
G	38	38	43.5
H	153	153	171
J	2.3	2.3	2.3
L	237.5	237.5	320
M	100	100	110
N	80	80	90
P	4 x 7 x 19 Slotted hole	4 x 7 x 19 Slotted hole	4 x 7 x 12 Slotted hole

CP05·08 CH08 CW05



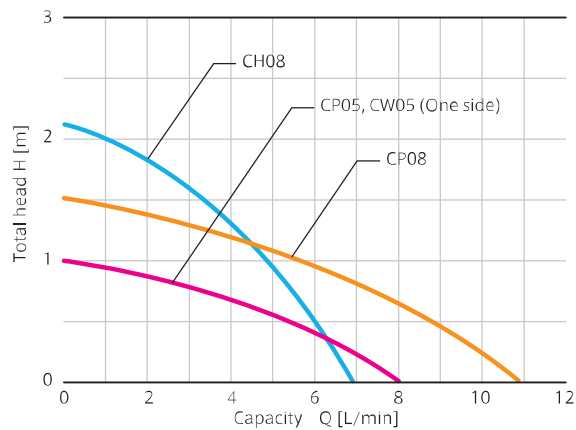
List of specifications

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	
CW05		50/60	8/9	1.0/1.4				

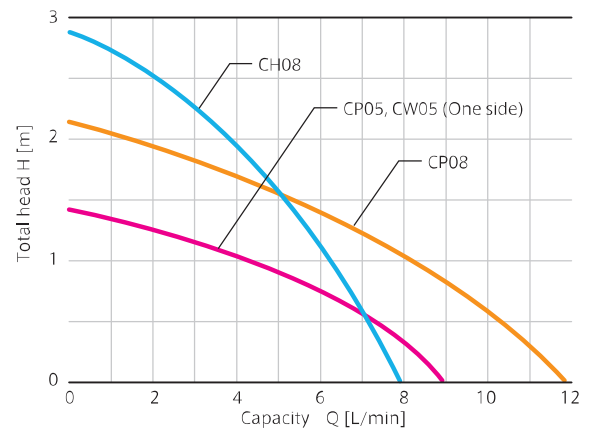
※For further information on detailed specifications, contact NIKKISO EIKO

Performance curves

50Hz



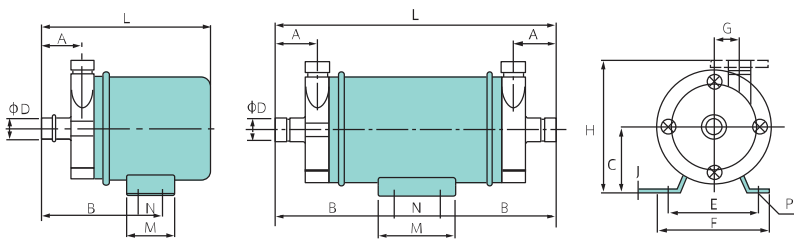
60Hz



Dimensional outline drawing

CP05·08 CH08

CW05



Model	CP05,08	CH08	CW05
A	26.5	26.5	26.5
B	72	72	78.5
C	45	45	45
Dφ	14	14	14
E	60	60	85
F	75	75	95
G	17	19.5	17
H	90	90	90
J	1.6	1.6	1.6
L	112	112	187
M	30	30	50
N	-	-	30
P	2-φ6	2-φ6	4-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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