

IWAKI  
MAGNETIC  
DRIVE  
PUMPS

**AMP**



# Polypropylene magnetic drive process pumps



The AMP series are magnetic drive process pumps with polypropylene wet ends, featuring a unique configuration which gives greatly improved tolerance to abnormal operating conditions (Non contact system). Applications cover a wide range of light chemical duties from acid to alkaline.

## Highly durable structure

A ductile cast iron shell adds strength and durability to the polypropylene wet ends. The rear casing which is subject to the highest stress, is reinforced with an FRP cover to increase strength. The maximum allowable casing pressure of 1.0MPa is a highlight feature amongst polypropylene pumps.

## Unique design prevents abnormal operation

The pump design features a Non contact system. The pump exhibits outstanding durability in air ingress to the suction.

Note: Dry running is not permitted.

## Back pullout system

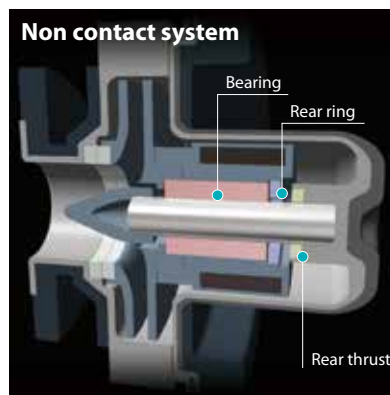
The back pullout system allows easy maintenance and inspection without removing piping. The motor can be safely removed without chemical leakage (Pumps on base plates only).

## Modular design and low maintenance cost

The pump is a modular design for ease of maintenance. Specific adjustments such as centering or checking clearances are not required. Any wear part can simply be replaced individually and reduces maintenance costs.

## Non contact system

The pump design features a mechanism to withstand abnormal operating. High magnet power of the rare earth magnets prevents the magnet capsule coming into contact with the thrust ring of the rear casing, thus preventing melting of components due to heat generation. This greatly improves resistance against abnormal operating in comparison with conventional magnetic drive pumps.

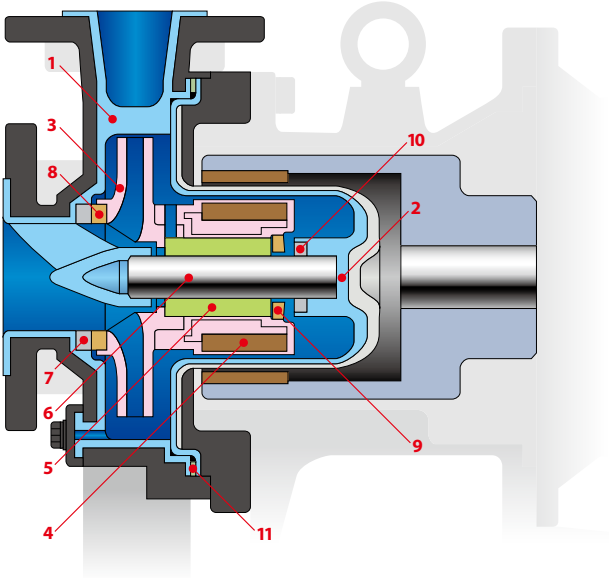


AMP40



AMP50

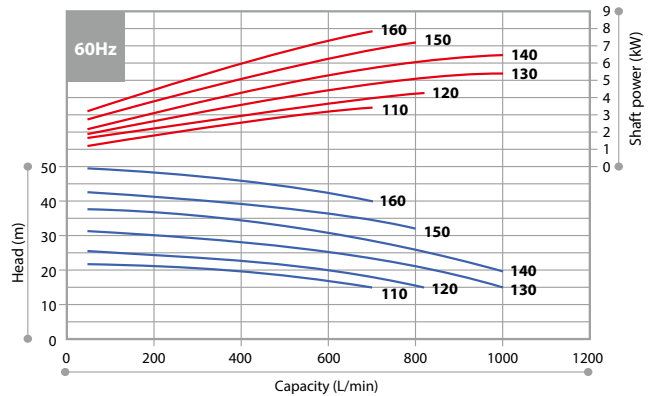
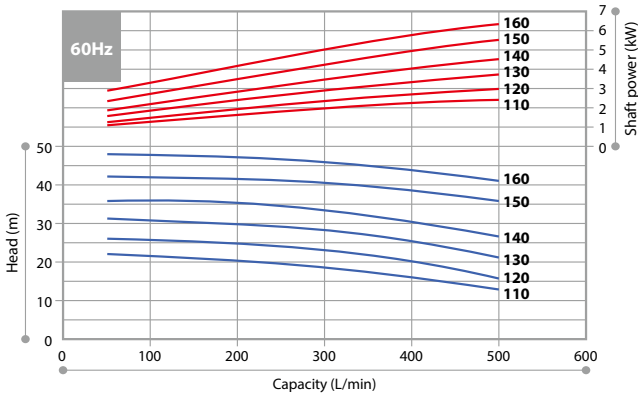
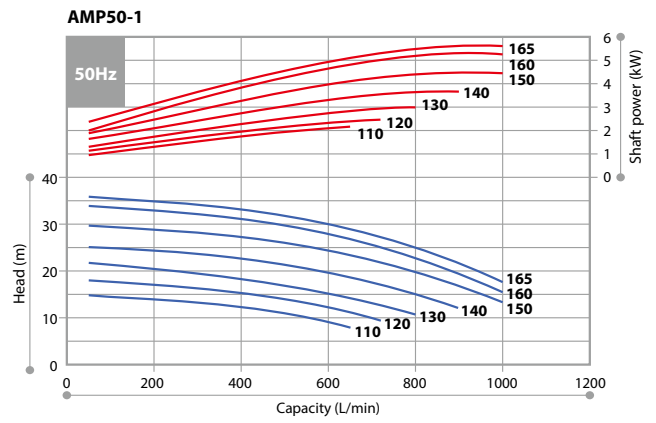
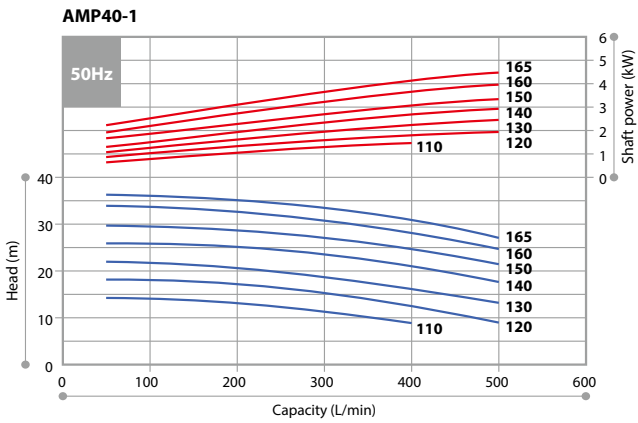
### Construction and materials



| Materials        | CF                          | KK  |
|------------------|-----------------------------|-----|
| 1 Front casing   | CFRPP                       |     |
| 2 Rear casing    |                             |     |
| 3 Impeller       | CFRETFE                     |     |
| 4 Magnet capsule | CFRETFE                     |     |
| 5 Bearing        | High density carbon         | SiC |
| 6 Spindle        | High purity alumina ceramic |     |
| 7 Liner ring     | PTFE (with filler)          |     |
| 8 Mouth ring     | High purity alumina ceramic |     |
| 9 Rear ring      | PTFE                        |     |
| 10 Rear thrust   | PTFE                        |     |
| 11 Gasket        | PTFE                        |     |

Note: Liquid temperature range 0 to 80°C Maximum operating pressure 1.0 MPa  
 Note: Please contact us for corrosion resistance.

### Performance curves



### Specifications (50/60Hz)

| Model   | Pump size<br>Suction × Discharge | Impeller size | 50Hz             |          | 60Hz             |          |
|---------|----------------------------------|---------------|------------------|----------|------------------|----------|
|         |                                  |               | Capacity (L/min) | Head (m) | Capacity (L/min) | Head (m) |
| AMP40-1 | 50 × 40                          | 165           | 208              | 35.0     | 250              | —        |
|         |                                  | 160           |                  | 32.5     |                  | 46.5     |
|         |                                  | 150           |                  | 28.5     |                  | 41.0     |
|         |                                  | 140           |                  | 25.0     |                  | 34.5     |
|         |                                  | 130           |                  | 20.5     |                  | 29.0     |
|         |                                  | 120           |                  | 17.0     |                  | 24.0     |
|         |                                  | 110           |                  | 13.0     |                  | 19.5     |
| AMP50-1 | 65 × 50                          | 165           | 417              | 33.0     | 500              | —        |
|         |                                  | 160           |                  | 31.0     |                  | 44.5     |
|         |                                  | 150           |                  | 27.0     |                  | 38.0     |
|         |                                  | 140           |                  | 22.5     |                  | 33.0     |
|         |                                  | 130           |                  | 18.0     |                  | 27.0     |
|         |                                  | 120           |                  | 15.0     |                  | 21.5     |
|         |                                  | 110           |                  | 12.0     |                  | 18.5     |

### Pump identification

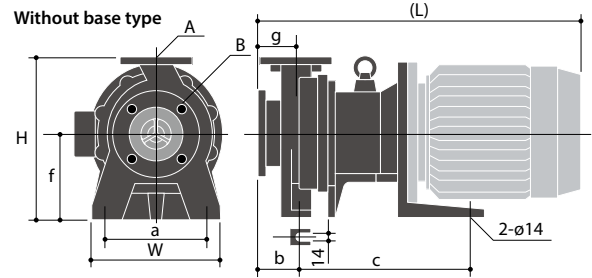
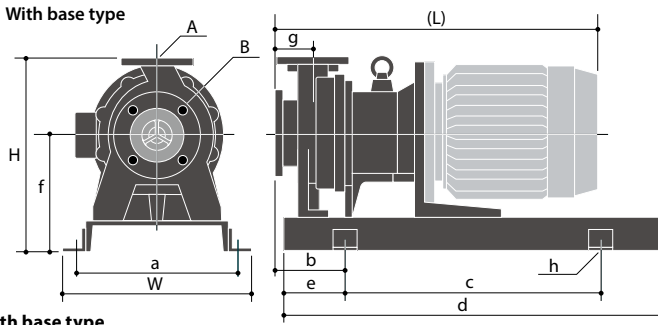
**AMP 40 - 110 1 CF F 055 J - D 2**

- Pump size** 40: 50A × 40A 50: 65A × 50A (Suction × Discharge)
- Impeller size** 110mm to 165mm
- Material of Bearing / Spindle** CF: High density carbon / High purity alumina ceramic  
KK: SiC / SiC
- Type of motor** F: Flange motor
- Motor output** 037: 3.7kW 055: 5.5kW 075: 7.5kW

- Impeller range** 1
- Standard for pipe connection and motor\*** J: JIS flange + JIS motor  
A: ANSI flange + JIS motor

| Mark | Drain         | Base         | Special version |
|------|---------------|--------------|-----------------|
| A    | Without drain | With base    | Standard        |
| S    | Without drain |              | Special         |
| D    | With drain    | Without base | Standard        |
| X    | With drain    |              | Special         |
| B    | Without drain | Without base | Standard        |
| Y    | Without drain |              | Special         |
| E    | With drain    | Without base | Standard        |
| Z    | With drain    |              | Special         |

### Dimensions in mm



Note: The dimensions may differ with the type of motor installed.

#### With base type

| Model   | Motor | W   | H   | L     | a   | b   | c   | d     | e     | f   | g  | h     | A   | B   | Mass kg |
|---------|-------|-----|-----|-------|-----|-----|-----|-------|-------|-----|----|-------|-----|-----|---------|
| AMP40-1 | 3.7kW | 400 | 410 | (625) | 350 | 150 | 540 | (800) | (130) | 250 | 80 | 4-ø19 | 40A | 50A | 115     |
|         | 5.5kW |     |     | (689) |     |     |     |       |       |     |    |       |     |     | 135     |
|         | 7.5kW |     |     | (625) |     |     |     |       |       |     |    |       |     |     | 115     |
| AMP50-1 | 3.7kW | 400 | 410 | (625) | 350 | 150 | 540 | (800) | (130) | 250 | 80 | 4-ø19 | 50A | 65A | 115     |
|         | 5.5kW |     |     | (689) |     |     |     |       |       |     |    |       |     |     | 135     |
|         | 7.5kW |     |     | (689) |     |     |     |       |       |     |    |       |     |     | 135     |

#### Without base type

| Model   | Motor | W   | H   | L   | a   | b  | c   | f   | g  | A   | B   | Mass kg |
|---------|-------|-----|-----|-----|-----|----|-----|-----|----|-----|-----|---------|
| AMP40-1 | 3.7kW | 280 | 340 | 625 | 220 | 90 | 285 | 180 | 80 | 40A | 50A | 85      |
|         | 5.5kW |     |     | 689 |     |    |     |     |    |     |     | 105     |
|         | 7.5kW |     |     | 689 |     |    |     |     |    |     |     | 110     |
| AMP50-1 | 3.7kW | 280 | 340 | 625 | 220 | 90 | 285 | 180 | 80 | 50A | 65A | 90      |
|         | 5.5kW |     |     | 689 |     |    |     |     |    |     |     | 110     |
|         | 7.5kW |     |     | 689 |     |    |     |     |    |     |     | 110     |

### Iwaki pump protector DRN series

#### Detects unusual pump operating conditions including dry-running and overload

The DRN model protects equipment (including pumps) from damage!  
Minimizes production downtime.  
Identifies possible causes of alarms so they can be investigated and addressed.



- Multiple Input** Two analog, one digital, one temperature input and one current input
- Easy operation** Equipped with EASY setup mode to remember the operation status and set the lower/upper limit values, as well as AUTO setup mode
- Bar graph** Visible indication of current operating status
- Logging capability** Data log feature for preventative maintenance scheduling
- Communication** RS485 external communication capability

#### Specifications

| Model                 | DRN-01                  | DRN-02     |
|-----------------------|-------------------------|------------|
| Amperometric range    | 0.5-30.00A              | 5.0-200.0A |
| Unit's source voltage | AC100-240V 50/60Hz 10VA |            |
| Operating temperature | 0-40°C                  |            |
| Operating humidity    | 35-85%RH                |            |

IWAKI CO., LTD. 6-6 Kanda-Sudacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan TEL: (81)3 3254 2935 FAX: 3 3252 8892 IWAKI has global net work. Please find your distributor location at [www.iwakipumps.jp](http://www.iwakipumps.jp)

|  |   |   |  |
|--|---|---|--|
| European office : IWAKI Europe GmbH<br>Germany : IWAKI Europe GmbH<br>Holland : IWAKI Europe GmbH (Netherlands Branch)<br>Italy : IWAKI Europe GmbH (Italy Branch)<br>Spain : IWAKI Europe GmbH (Spain Branch)<br>Belgium : IWAKI Belgium N.V.<br>Denmark : IWAKI Nordic A/S<br>Finland : IWAKI Suomi Oy<br>France : IWAKI France S.A.<br>Norway : IWAKI Norge AS<br>Sweden : IWAKI Sverige AB<br>U.K. : IWAKI Pumps (UK) Ltd. | TEL: (49)2154 9254 0 FAX: 2154 9254 48<br>TEL: (49)2154 9254 50 FAX: 2154 9254 55<br>TEL: (31)74 2420011 FAX: (49)2154 925448<br>TEL: (39)0444 371115 FAX: 0444 335350<br>TEL: (34)93 37 70 198 FAX: 93 47 40 991<br>TEL: (32)13 67 02 00 FAX: 13 67 20 30<br>TEL: (45)48 24 2345 FAX: 48 24 2346<br>TEL: (358)9 2745810 FAX: 9 2742715<br>TEL: (33)1 69 63 33 70 FAX: 1 64 49 92 73<br>TEL: (47)23 38 49 00 FAX: 23 38 49 01<br>TEL: (46)8 511 72900 FAX: 8 511 72922<br>TEL: (44)1743 231363 FAX: 1743 366507 | U.S.A. : IWAKI America Inc.<br>Argentina : IWAKI America Inc. (Argentina Branch)<br>Brasil : IWAKI Do Brasil Comercio De Bombas Hidraulicas Ltda.<br>Singapore : IWAKI Singapore Pte Ltd.<br>Indonesia : IWAKI Singapore (Indonesia Office)<br>Malaysia : IWAKIm Sdn. Bhd.<br>Australia : IWAKI Pumps Australia Pty Ltd.<br>Hong Kong : IWAKI Pumps Co., Ltd.<br>China : GFTZ IWAKI Engineering & Trading Co., Ltd.<br>Korea : IWAKI Pumps (Shanghai) Co., Ltd.<br>Taiwan : IWAKI Korea Co., Ltd.<br>Thailand : IWAKI Pumps Taiwan Co., Ltd.<br>Thailand : IWAKI (Thailand) Co., Ltd. | TEL: (1)508 429 1440 FAX: 508 429 1386<br>TEL: (54)11 4745 4116<br>TEL: (55)19 3244 5900 FAX: 19 3244 5900<br>TEL: (65)6316 2028 FAX: 6316 3221<br>TEL: (62)21 6906606 FAX: 21 6906612<br>TEL: (60)3 7803 8807 FAX: 3 7803 4800<br>TEL: (61)2 9899 2411 FAX: 2 9899 2421<br>TEL: (852)2607 1168 FAX: 2607 1000<br>TEL: (86)20 84350603 FAX: 20 84359181<br>TEL: (86)21 6272 7502 FAX: 21 6272 6929<br>TEL: (82)2 2630 4800 FAX: 2 2630 4801<br>TEL: (886)2 8227 6900 FAX: 2 8227 6818<br>TEL: (66)2 322 2471 FAX: 2 322 2477 |
|--|---|---|--|

**Caution for safety use:** Before use of pump, read instruction manual carefully to use the product correctly. Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

**Legal attention related to export.** Our products and/or parts of products fall in the category of goods contained in control list of international regime for export control. Please be reminded that export license could be required when products are exported due to export control regulations of countries. The posting and copying from this catalogue without permission is not accepted firmly.