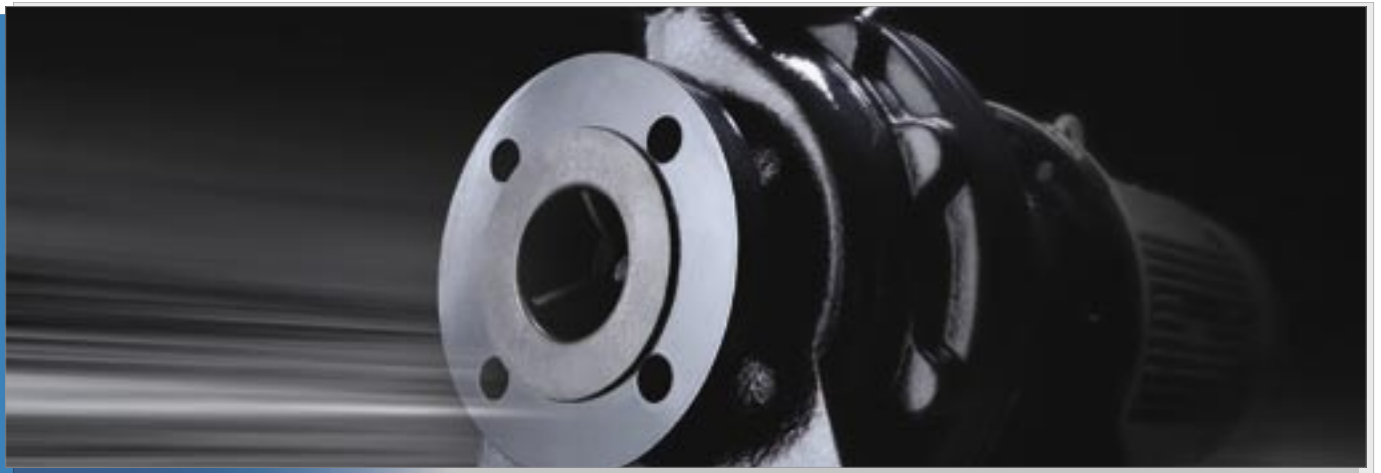




**AMP**  
series

# Magnetic drive pumps

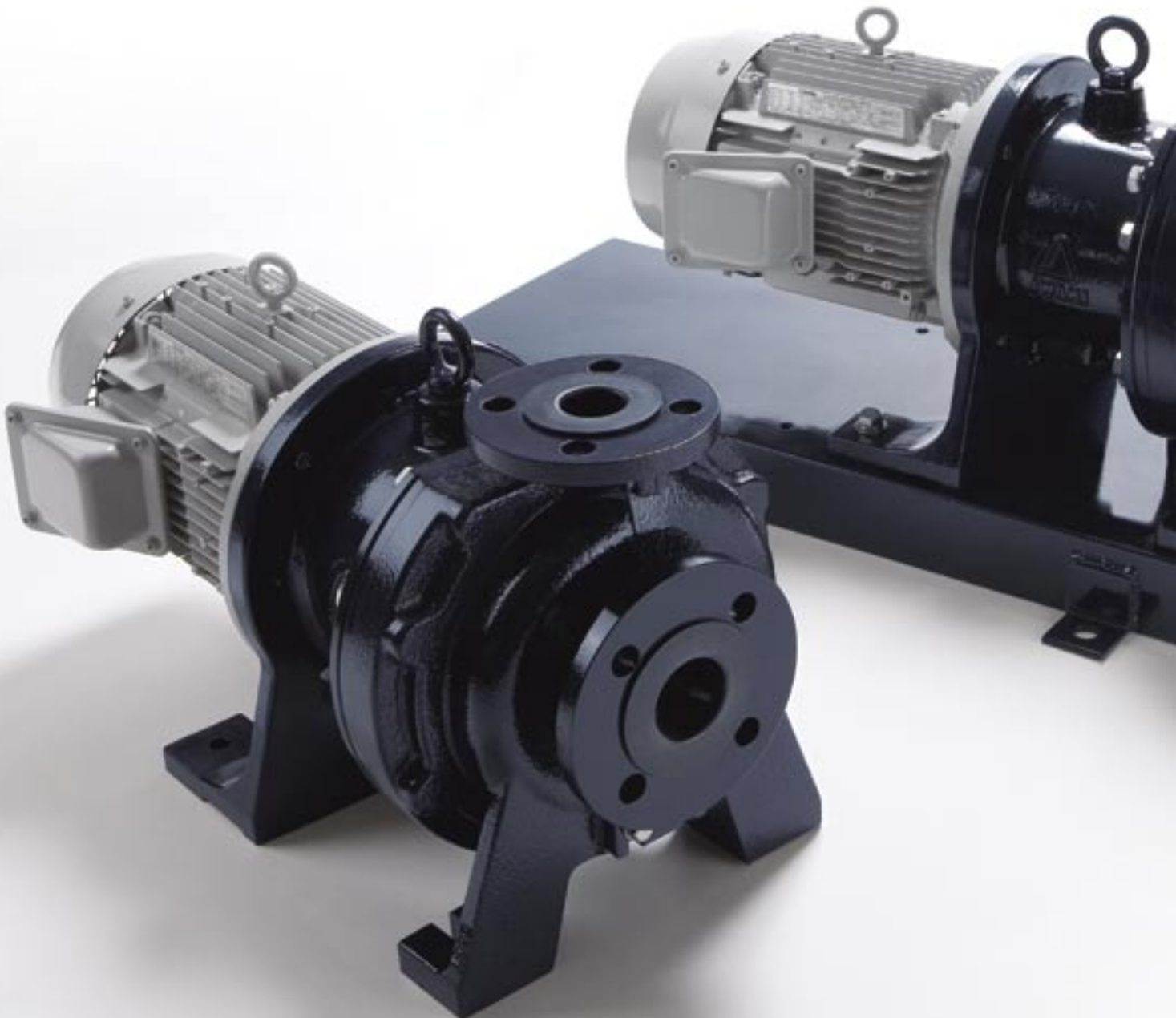
## Polypropylene magnetic drive process pumps



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).

# 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

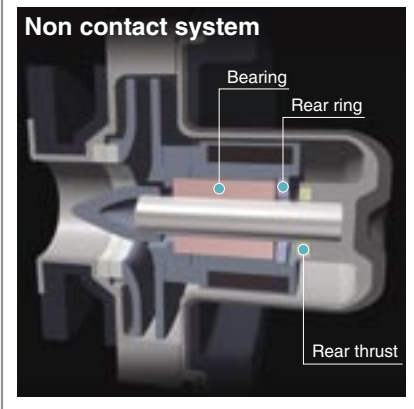
The back pullout system allows easy maintenance and inspection without removing piping. The motor can be safely removed without chemical leakage (Pumps on base plates only).

### 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.

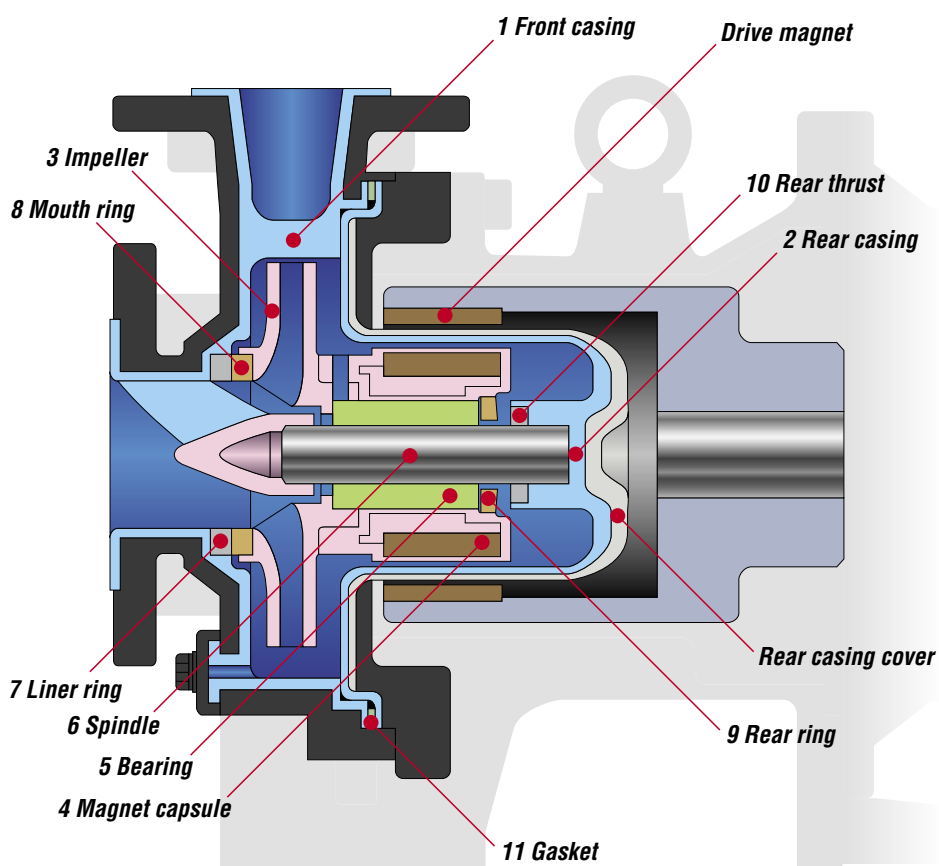
### Non contact system

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.





## Construction



## Wet-end materials

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

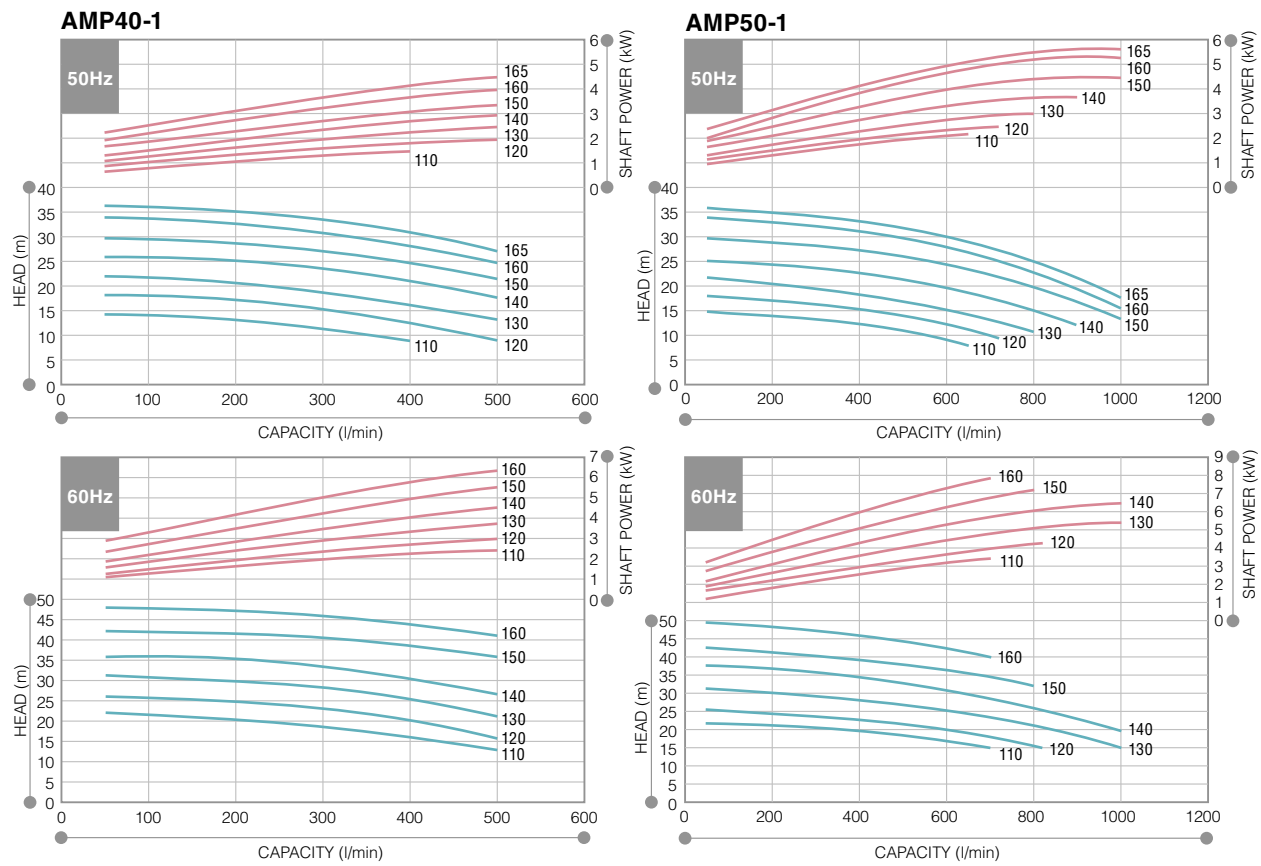
Temperature: 0 - 80°C Pressure Resistance: 1MPa  
 Note: Please contact us for corrosion resistance.



AMP40

AMP50

## Performance curves



## Specification

Model	Pump size Suction X Discharge	Impeller size	50Hz		60Hz	
			Capacity (l/min)	Head (m)	Capacity (l/min)	Head (m)
AMP40-1	50 X 40	165	208	35	250	—
		160		32.5		46.5
		150		28.5		41
		140		25		34.5
		130		20.5		29
		120		17		24
		110		13		19.5
AMP50-1	65 X 50	165	417	33	500	—
		160		31		44.5
		150		27		38
		140		22.5		33
		130		18		27
		120		15		21.5
	110	12	18.5			

# Pump identification

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

- Pump size **40**: 50A X 40A (Suction X Discharge)  
**50**: 65A X 50A
- Impeller size **110mm to 165mm**
- Impeller range **1**
- 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

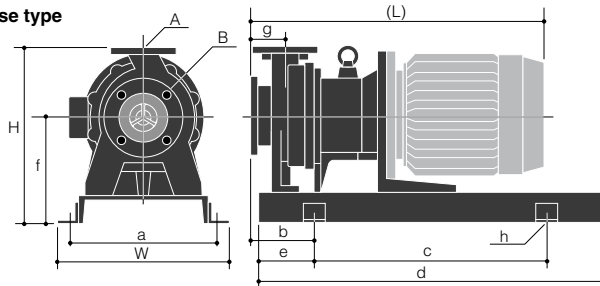
- Special version
- Motor pole **2**

Mark	Drain	Base	Special version
<b>A</b>	Without drain	With base	Standard
<b>S</b>			Special
<b>D</b>	With drain		Standard
<b>X</b>			Special
<b>B</b>	Without drain	Without base	Standard
<b>Y</b>			Special
<b>E</b>	With drain		Standard
<b>Z</b>			Special

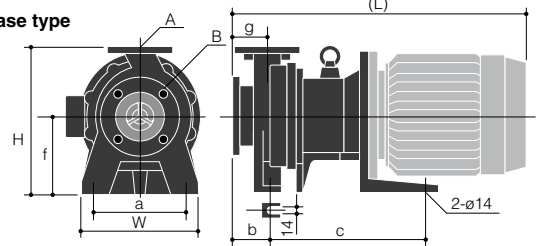
- Standard for pipe connection and motor \*
- J**: JIS flange + JIS motor
- A**: ANSI flange + JIS motor

# Dimensions

With base type



Without base type



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			689											135
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			385			105					
	7.5kW			385			110					
AMP50-1	3.7kW	280	340	625	220	90	285	180	80	50A	65A	90
	5.5kW			385			110					
	7.5kW			385			110					

## Iwaki dry running protector DR series (Option)

Model DR is electric current sensing type dry running protector. It detects the decreased load current (lower limit) to stop the pump when it runs dry or runs with air sucking in. It can detect over-load, too.



Note: The dry run protector can not be used along with inverter.

## Specification

50/60Hz

Model	DR-10	DR-20
Motor power	200 to 240V three phase	380 to 440V three phase
Applied motor	0.4 to 7.5kW	0.75 to 15kW
Power control	100 to 240V single phase	
Power	V	100V ±10% single phase
	Input	200 to 240V ±10% single phase
	3.5W	
Detective current	0.5 to 32.0A	
Current transformer(CT)	Built-in	
Outer dimension	D80 X W153 X H122	