

ShinMaywa

Submersible Pumps

A·AH Series



Submersible Pumps
A·AH Series

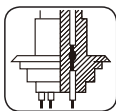
The Multi-vane Semi-open Impeller Yield High Efficiency

There are **MANY ADVANTAGES** with ShinMaywa Submersible Pump.

● Features and Construction

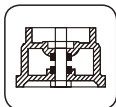
Cable entry

This cable entry employs a core seal that effectively prevents water from wicking down the cable even when the cable end is immersed or the cable sheath is damaged. This feature prevents water from penetrating the motor chamber.



Shaft seal

A highly wear resistant silicon carbide double mechanical seal positively prevents the water from penetrating into the motor chamber. Besides, combined use of an oil seal further extends the service life of the mechanical seal.

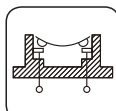


Discharge connection

When the guide rail installation type submersible pump is lowered along the guide pipe, the pump is automatically connected to the discharge pipe with the discharge connection.

Motor protector

A built-in automatic-reset type motor protector (thermal protector) positively protects the motor from burnout due to overload, impeller clogging and open phase.

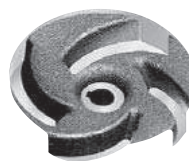
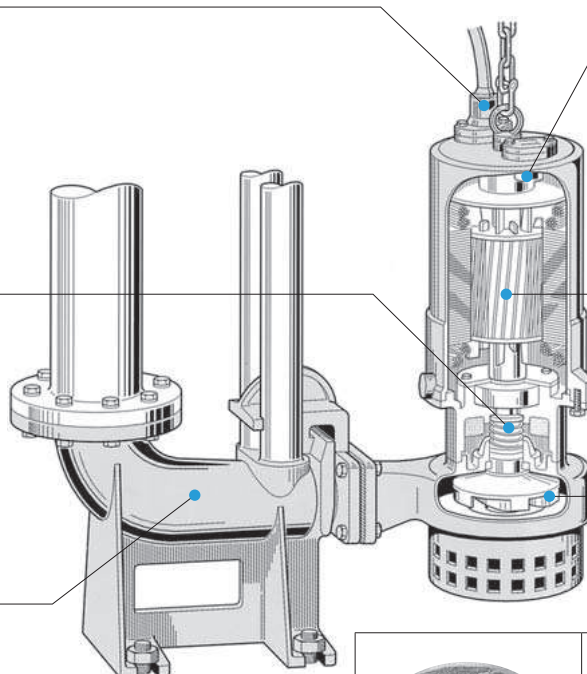


Motor

Air-filled type motor with class E (or class F) insulation is employed.

Impeller

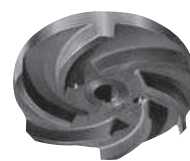
The multi-vane semi-open impeller yield with high head and improved pump efficiency.



A Series



**AH401T-501
·502-651**



AH801-1001

Applications

- For defoaming, backwashing and filtering at onsite wastewater treatment systems
- For discharging treated water from onsite wastewater treatment systems, small-scale sewage treatment plants, etc.
- For small farming and gardening use
- For discharging stormwater, wastewater and spring water
- For discharging stormwater and spring water from underground passages, tunnels, etc.
- For draining buildings, factories, garages, basements, etc.

Main Specifications

Handling liquid	Kind of liquid		Wastewater
Material	Cable	~7.5kW	PVC insulated PVC sheathed cable
		11kW	EPR insulated PCP sheathed cable
	Motor shaft		420J2 stainless steel
	Pump housing		Gray iron casting (FC200)
	Impeller		Gray iron casting (FC200)
Electric motor	Type		Air-filled type submersible induction motor
	Insulation class		Class E
	Enclosure		IP68
	Phase		Three phase

Optional Specifications

Cable extension	Length of Cable	15 · 20 · 30m
Material change	Impeller	304 stainless steel casting or High chromium cast iron , etc.
	Suction cover	
	Lifting chain	304 stainless steel
Motor protector	Thermal switches embedded in the stator. Leakage detector	
Starting method	Star-delta starting(For 5.5kW and 7.5kW models) (11kW models are standardly equipped.)	
Insulation class	Class F	



〈Discharge〉 40 to 80mm (1 1/2 to 3")
 〈Rated output〉 0.25 to 1.5kW

S E R I E S

Standard Specifications

Discharge		Pump model	Installation kit No.		Phase	Rated output kW	No. of poles	Flow-Total head m ³ /min-m		Solid passage dia. (soft solid) (mm)		Pump weight kg
mm	inch		Guide rail installation	Free standing				50Hz	60Hz	50Hz	60Hz	
40	1 1/2	A401T	P40	F40	Three	0.25	2	0.1—6.5	0.1—6.5	9	9	14.5
50	2	A501T	P50	F50	Three	0.4	2	0.15—7.3	0.15—7.3	9	9	17
		A501				0.75		0.2—10.0	0.2—10.0	9	9	18
65	2 1/2	A501T	P65B	F65B	Three	0.4	2	0.15—7.3	0.15—7.3	9	9	17
		A501				0.75		0.2—10.0	0.2—10.0	9	9	18
		A652	P65	F65		1.5		0.4—12.3	0.4—12.3	14	13	27
80	3	A652	P80	F80	Three	1.5	2	0.4—12.3	0.4—12.3	14	13	27

※Starting method : Direct-on-line.



A652-P65

Standard Accessories

- Cable1pc.
- 6m for 0.75kW or under
- 8m for 1.5kW

Guide Rail Installation Kit

- Discharge connection
- Guide holder (with bolts and nuts)
- Sliding bracket
- Pump lifting chain (6m)

Discharge		Installation kit No.	Kit weight	Connection weight
mm	inch		kg	kg
40	1 1/2	P40	11	4.5
50	2	P50	11	4.5
65	2 1/2	P65B	20	14.5
		P65	24	15
80	3	P80	31.5	20.5

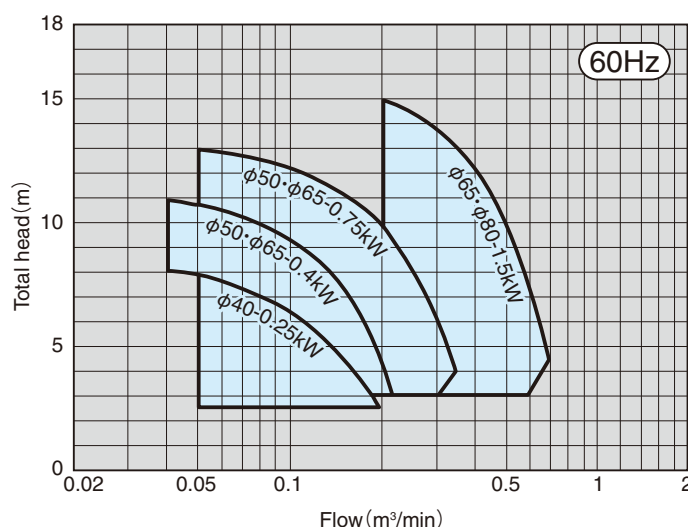
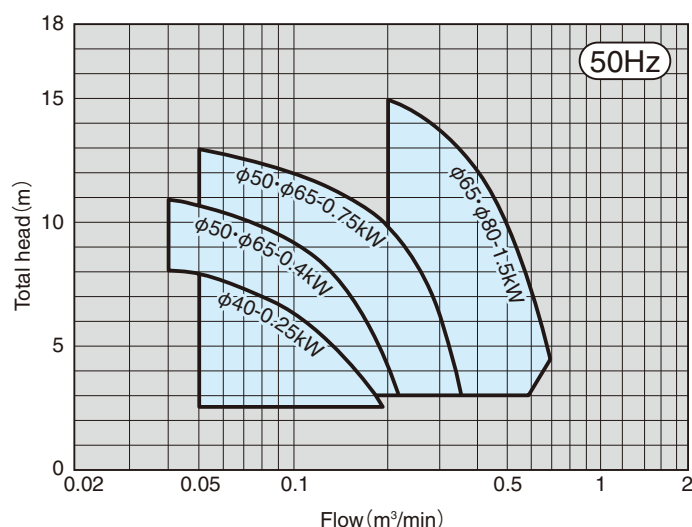
Free Standing Kit

- Discharge side flange
- Companion flange (with bolts, nuts and gasket)

Discharge		Installation kit No.	Kit weight
mm	inch		kg
40	1 1/2	F40	☆
50	2	F50	☆
65	2 1/2	F65B	5.5
		F65	7
80	3	F80	9.5

☆Built into the pump.

Performance Curves



AH

High Head type

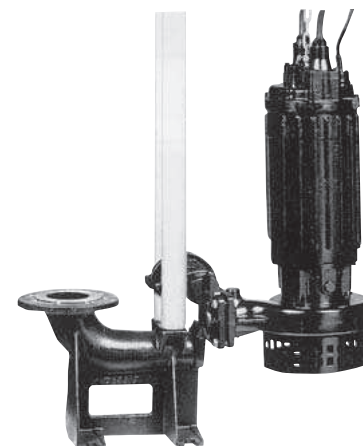
〈Discharge〉 40 to 100mm (1 1/2 to 4")

〈Rated output〉 0.4 to 11kW

S E R I E S

Standard Specifications

Discharge mm	(in)	Pump model	Installation kit No.		Phase	Rated output kW	No. of poles	Flow-Total head m ³ /min-m		Solid passage dia. (soft solid) (mm)		Pump weight kg
			Guide rail installation	Free standing				50Hz	60Hz	50Hz	60Hz	
40	1 1/2	AH401T	P40	F40	Three	0.4	2	0.05—13.4	0.05—13.2	5.5	6.5	17
50	2	AH501	P50	F50	Three	0.75	2	0.1—14.0	0.1—14.8	7.5	9	18
		AH502				1.5		0.2—18.4	0.2—18.2	12.5	13.5	25.5
		AH501	P65B	F65B	Three	0.75	2	0.1—14.0	0.1—14.8	7.5	9	18
		AH502				1.5		0.2—18.4	0.2—18.2	12.5	13.5	25.5
65	2 1/2	AH651	P65	F65	Three	2.2	2	0.3—20.3	0.3—20.3	10.5	12.5	46
		AH801				3.7		0.5—23.2	0.5—24.5	13.5	14	55
		AH651	P80	F80	Three	2.2	2	0.3—20.3	0.3—20.3	10.5	12.5	46
		AH801				3.7		0.5—23.2	0.5—24.5	13.5	14	55
80	3	AH1001	P80	F80	Three	5.5	2	0.6—28.0	0.6—28.6	14	14	82
		AH1001				7.5		0.8—29.5	0.8—31.0	14	14	92
		AH1001	P100	F100	Three	11	2	1.0—37.4	1.0—38.8	14	14	120
		AH1001				11		1.0—37.4	1.0—38.8	14	14	120
100	4	AH801	P100	F100	Three	3.7	2	0.5—23.2	0.5—24.5	13.5	14	55
		AH1001				5.5		0.6—28.0	0.6—28.6	14	14	82
		AH1001	P100	F100	Three	7.5	2	0.8—29.5	0.8—31.0	14	14	92
		AH1001				11		1.0—37.4	1.0—38.8	14	14	120



AH1001-P100

※Starting method 7.5kW or under : Direct-on-line, 11kW : Star-Delta.

Standard Accessories

- Cable (Under 7.5kW).....1pc.
- (11kW).....3pcs.

6m for 0.75kW or under
8m for 1.5kW or over

Guide Rail Installation Kit

- Discharge connection
- Guide holder (with bolts and nuts)
- Sliding bracket
- Pump lifting chain (6m)

Discharge mm	inch	Installation kit No.	Kit weight	Connection weight
			kg	kg
40	1 1/2	P40	11	4.5
50	2	P50	11	4.5
65	2 1/2	P65B	20	14.5
		P65	24	15
80	3	P80	31.5	20.5
100	4	P100	40.5	27

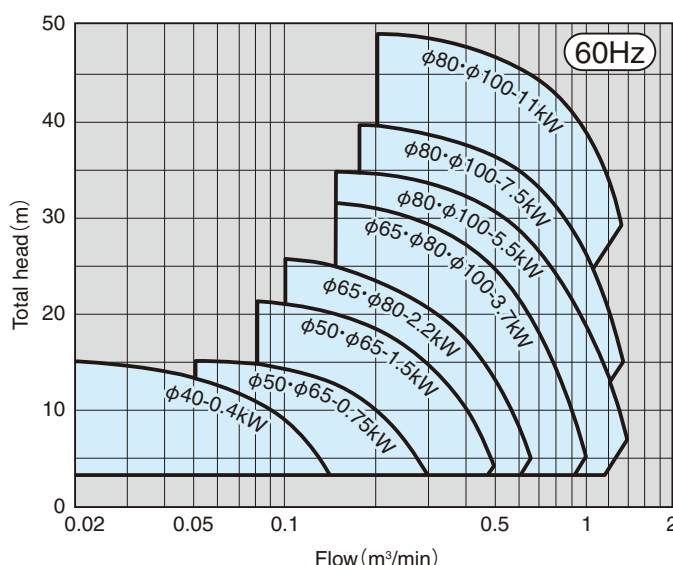
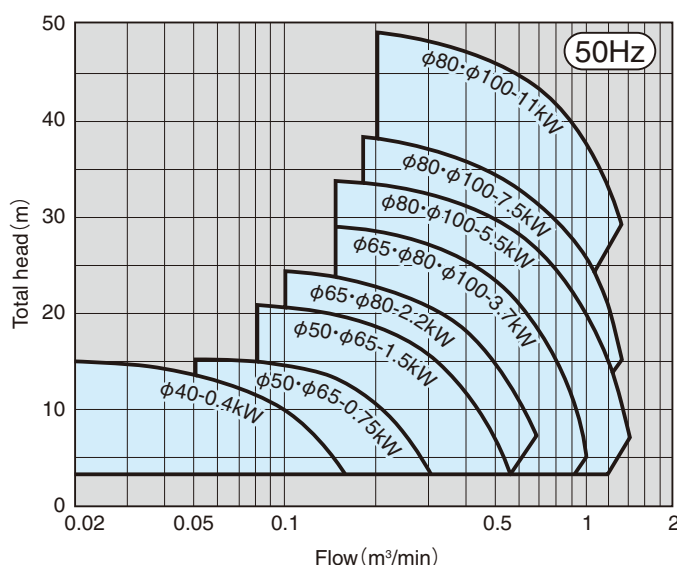
Free Standing Kit

- Discharge side flange
- Companion flange (with bolts, nuts and gasket)

Discharge mm	inch	Installation kit No.	Kit weight
			kg
40	1 1/2	F40	☆
50	2	F50	☆
65	2 1/2	F65B	5.5
		F65	7
80	3	F80	9.5
100	4	F100	11

☆Built into the pump.

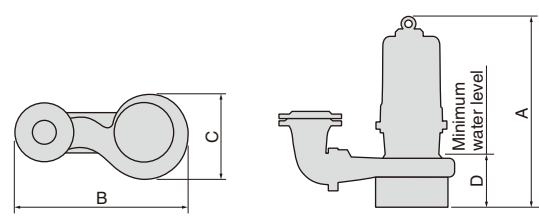
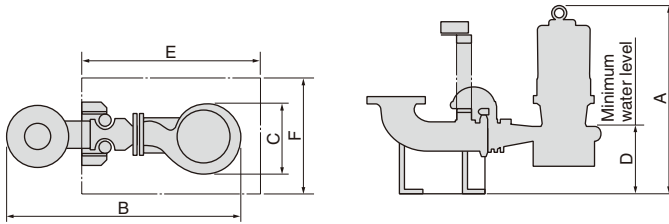
Performance Curves



Dimensions

Unit:mm

Unit:mm



Guide rail installation

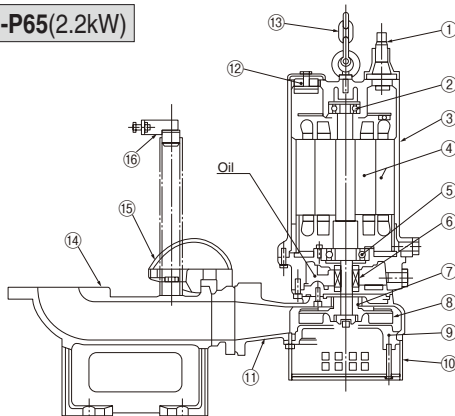
	Pump model	Installation kit No.	Rated output kW	A	B	C	D	E	F		
A	A401T	P40	0.25	431	447	171	180	550	350		
	A501(T)	P50	0.4	451							
		P65B	0.75		520						
	A652	P65	1.5	511	638	202	195				
		P80		551	714		235				
AH	AH401T	P40	0.4	451	447	171	180	550	350		
	AH501	P50	0.75		520		165				
		P65B									
	AH502	P50	1.5	481	476	190					
		P65B		549							
	AH651	P65	2.2	580	695	211	200				
		P80		620	771		240				
	AH801	P65	3.7	621	695	226	200				
		P80		661	771		240				
		P100		784							
	AH1001	P80	5.5	690	843	276	250			700	600
			7.5	725							
			11.0	806							
		P100	5.5	690	856						
			7.5	725							
			11.0	806							

Free standing

	Pump model	Installation kit No.	Rated output kW	A	B	C	D
A	A401T	F40	0.25	367	249	171	115
	A501(T)	F50	0.4	387			
		F65B	0.75		344		
	A652	F65	1.5	439	393	202	125
	F80	408					
AH	AH401T	F40	0.4	387	249	171	115
	AH501	F50	0.75		344		
		F65B			373		
	AH502	F50	1.5	436	278	190	120
	F65B	373					
	AH651	F65	2.2	530	452	211	150
		F80			465		
	AH801	F65	3.7	571	450	226	
		F80			465		
		F100			482		
	AH1001	F80	5.5	618	573	276	
			7.5	653			
			11.0	734			
		F100	5.5	618	554		
			7.5	653			
			11.0	734			

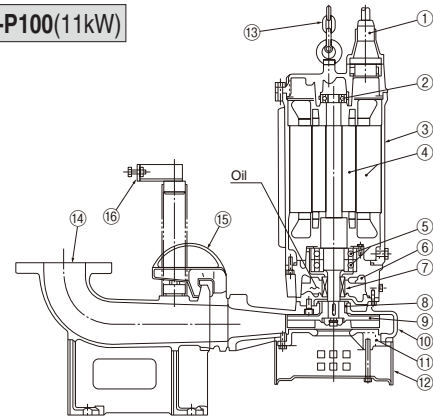
Sectional View

AH651-P65(2.2kW)



No	Part Name	Material
1	Cable	PVC insulated PVC sheathed cable
2	Ball bearing(upper)	—
3	Stator housing	Gray iron casting (FC200)
4	Motor	Shaft: 420J2 stainless steel
5	Ball bearing(lower)	—
6	Mechanical seal	—
7	Seal ring	304 stainless steel
8	Impeller	Gray iron casting (FC200)
9	Suction cover	Gray iron casting (FC200)
10	Strainer	Cold-reduced carbon steel
11	Pump housing	Gray iron casting (FC200)
12	Thermal protector	—
13	Lifting chain	Structural steel
14	Discharge connection	Gray iron casting (FC200)
15	Sliding bracket	Gray iron casting (FC200)
16	Guide holder	304 stainless steel casting

AH1001-P100(11kW)



No	Part Name	Material
1	Cable	EPR insulated PCP sheathed cable
2	Ball bearing (upper)	—
3	Stator housing	Gray iron casting (FC200)
4	Motor	Shaft: 420J2 stainless steel
5	Ball bearing (lower)	—
6	Pressure equalizer	Foamed acrylonitrile butadiene rubber
7	Mechanical seal	—
8	Seal ring	304 stainless steel
9	Impeller	Spheroidal graphite iron casting (FCD500)
10	Pump housing	Gray iron casting (FC200)
11	Suction cover	Gray iron casting (FC200)
12	Strainer	Cold-reduced carbon steel
13	Lifting chain	Structural steel
14	Discharge connection	Gray iron casting (FC200)
15	Sliding bracket	Gray iron casting (FC200)
16	Guide holder	304 stainless steel casting

Special Accessories

Liquid Level Regulators - All models are non-mercury structure for earth environment.

LC "Level Switch"



MS "Mini Switch"



FV "Oval Float"



Features

LC Useful for potable water, wastewater and sewage containing the suspended solids. Hardly affected by corrosion or rust even if it is immersed in a corrosive liquid for a long time.

MS Useful for wastewater and sewage containing a few suspended solids. The MS is available in two types, MS11 (single float) and MS21 (double float).

FV Useful for the fresh water as well as wastewater not containing suspended solids. A single FV is able to control both the upper and lower liquid levels.

Specifications

Model		LC12	MS11, MS21	FV11
Switch		Micro switch	Reed switch	Reed switch
Specific gravity of liquid		0.95~1.15	0.95~1.10	0.95~1.10
Liquid temperature		0~60°C	0~40°C	0~60°C
Voltage		AC/DC30V or under		
Current		5A or under	0.5A or under	0.6A
Cable length		6m, 13m, 20m, 30m, 40m, 50m (further cable extension at interval of 10m)		
Cable type		0.75mm ² ×3 cores, Flat type	0.2mm ² ×2 cores×O.D.4.7mm	0.5mm ² ×2 cores×O.D.5.8mm
Weight (including cable)		1.2kg (6m cable)	0.6kg (MS11, 6m cable)	1.0kg (6m cable)
Material	Case	Polypropylene resin	ABS resin	Polypropylene resin
	Cable	PVC sheathed code (VCTFK)	PVC resin (soft type)	PVC resin (soft type)
	Others	Chain: 304 stainless steel	Sinker: Cast iron with PVC resin coating	Sinker: Cast iron

Specifications and dimensions are subject to change without notice.

ShinMaywa Industries, Ltd.

International Business Group
Sales & Marketing Dept., Fluid Div.
3-2-43, Shitte, Tsurumi-ku, Yokohama, 230-0003, Japan
Phone : +81-45-584-1322 Fax : +81-45-575-2286
E-mail : sales.eisui@shinmaywa.co.jp

ShinMaywa (America), Ltd.

10737 Gateway West, Suite 240,
El Paso, Texas 79935, U.S.A.
Phone : +1-915-594-9862
Fax : +1-915-594-9866
E-mail : info@shinmaywaamerica.com

ShinMaywa (Asia) Pte. Ltd.

8 Burn Road, #14-10 Trivex,
Singapore 369977
Phone : +65-6224-0728
Fax : +65-6224-9678
E-mail : asia.ad@shinmaywa.com.sg

ShinMaywa (Shanghai) Trading Co., Ltd.

201107 Building 6, Lane 333, Zhujian Road,
Minhang District, Shanghai, China
Phone : +86-21-5296-2966
Fax : +86-21-5296-2970
E-mail : shanghai@shinmaywa.co.jp



ShinMaywa ONO PLANT

ISO 9001(No.956445)/ISO 14001(No.771888)