

ShinMaywa

Submersible Pumps

(Volute Type) A·AH Series



Submersible Pumps
A·AH Series

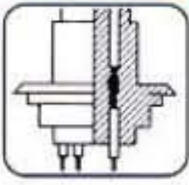
The Volute type Open Impeller Yield High Efficiency

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

●Features And Construction

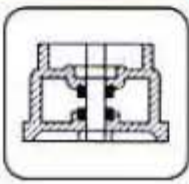
Cable outlet with core sealer

The self-contained core sealer of the cable outlet shuts the water out from penetrating into the motor chamber through the core wires even if the cable tip is immersed in water or the sheath is damaged.



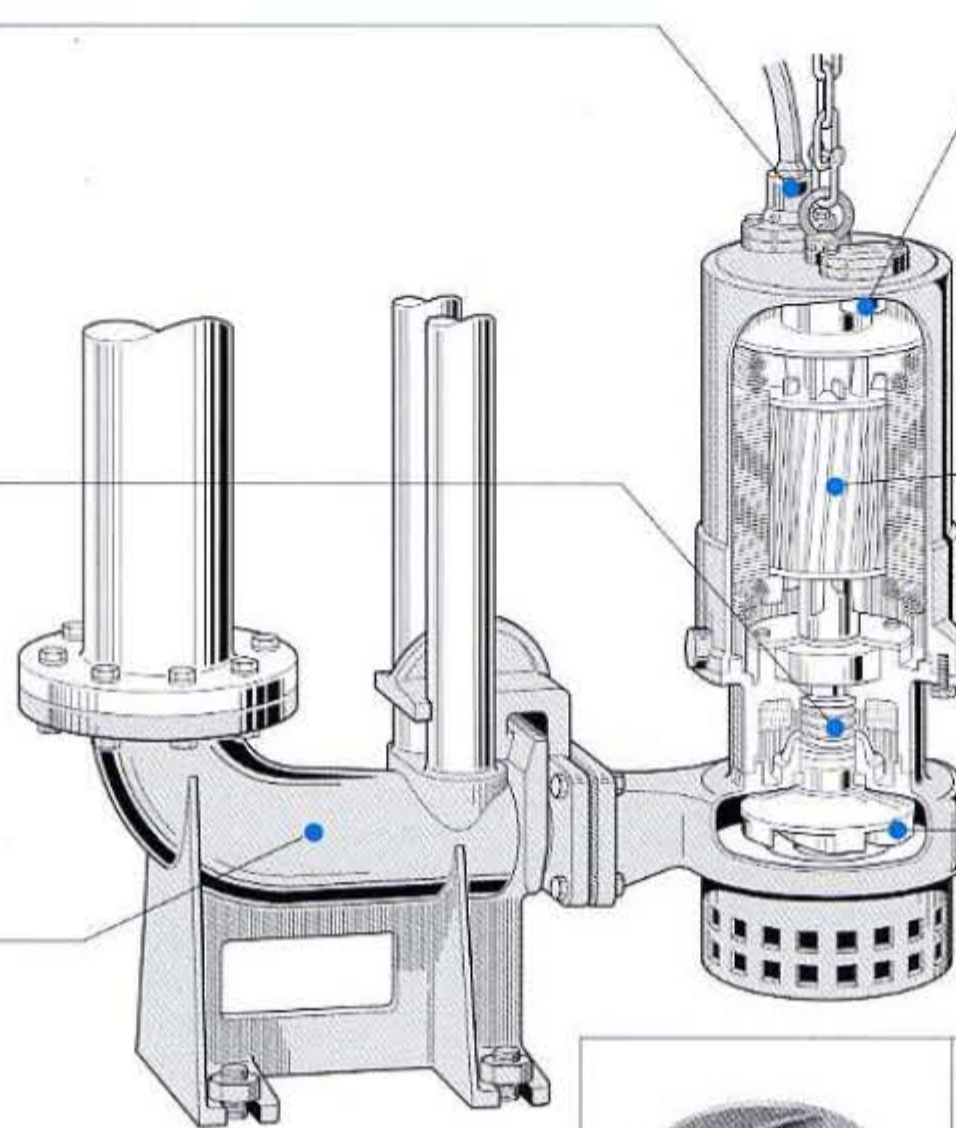
Shaft seal

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.



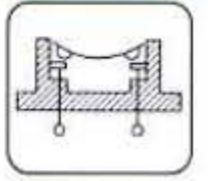
Discharge connection

When the automatic connection type submersible pump is lowered along with 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 (automatic cutoff or thermal protector) positively protects the motor from burnout due to overload, impeller clogging and open phase.



Motor

Dry type motor with Class E (or Class F) insulation is employed.

Impeller

The Volute type open Impeller yield with high head and improved pump efficiency.

Uses

- For defoaming, backwashing and filtering at combination treatment plants
- For discharging treated water from purifying tanks, small-scale sewage treatment plants, etc.
- For small farming and gardening use
- For discharging rain water, waste water and spring water
- For discharging rain water and spring water from underground passages, tunnels, etc.
- For draining buildings, factories, garages, basements, etc.



A Series



AH401T · 501
· 502 · 651



AH801 · 1001

Main Specification

Handling Liquid	Kind of Liquid	Waste Water
Material	Cable	VCT(Over 11kW : 2RNCT)
	Motor Shaft	SUS 420J2
	Pump Casing	Gray Cast Iron
	Impeller	Gray Cast Iron
Electric Motor	Type	Dry-type Submersible Induction Motor
	Insulation Class	Class E (or Class F)
	Enclosure	IP68
	Phase	Three Phase
	Voltage	According to the specifications.

Special Specification

Cable Extension	Length of Cable	15 · 20 · 30m	
	Material Change	Impeller	stainless steel casting or According to the specifications
		Base Cover	stainless steel (SUS304)
Motor Protector	Micro-Thermal Protector Moisture Detector		
Starting Method	Star-delta Starting(5.5kW · 7.5kW) (Over 11kW models are standard specifications)		



<Bore> 40 to 80mm (1 1/2 to 3")
<Output> 0.25 to 1.5kW

S E R I E S

Standard Specifications

Bore		Pump Model	Connection Part No.		Phase	Output kW	Poles	Capacity-Total Head m ³ /min-m		Solid Passage Size mmXmm	Weight (Pump Proper) kg
mm	(in)		Automatic Connection	Flange Connection				50Hz	60Hz		
40	1 1/2	A401T	P40	F40	Three	0.25	2	0.1-6.5	0.1-6.5	15X10	14.5
50	2	A501T	P50	F50	Three	0.4	2	0.15-7.3	0.15-7.3	15X10	17
		A501				0.75		0.2-10.0	0.2-10.0		18
65	2 1/2	A501T	P65B	F65B	Three	0.4	2	0.15-7.3	0.15-7.3	15X10	17
		A501				0.75		0.2-10.0	0.2-10.0		18
		A652				P65		F65	1.5	0.4-12.3	0.4-12.3
80	3	A652	P80	F80	Three	1.5	2	0.4-12.3	0.4-12.3	20X15	27

※Starting method : Direct-on-line.



A652-P65

Standard Accessories

- Cable.....1pc.

6m for under 0.75kW
 8m for 1.5kW

Automatic Connection Set

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

Bore		Connection Part No.	Set Weight	Connection Weight
mm	in		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

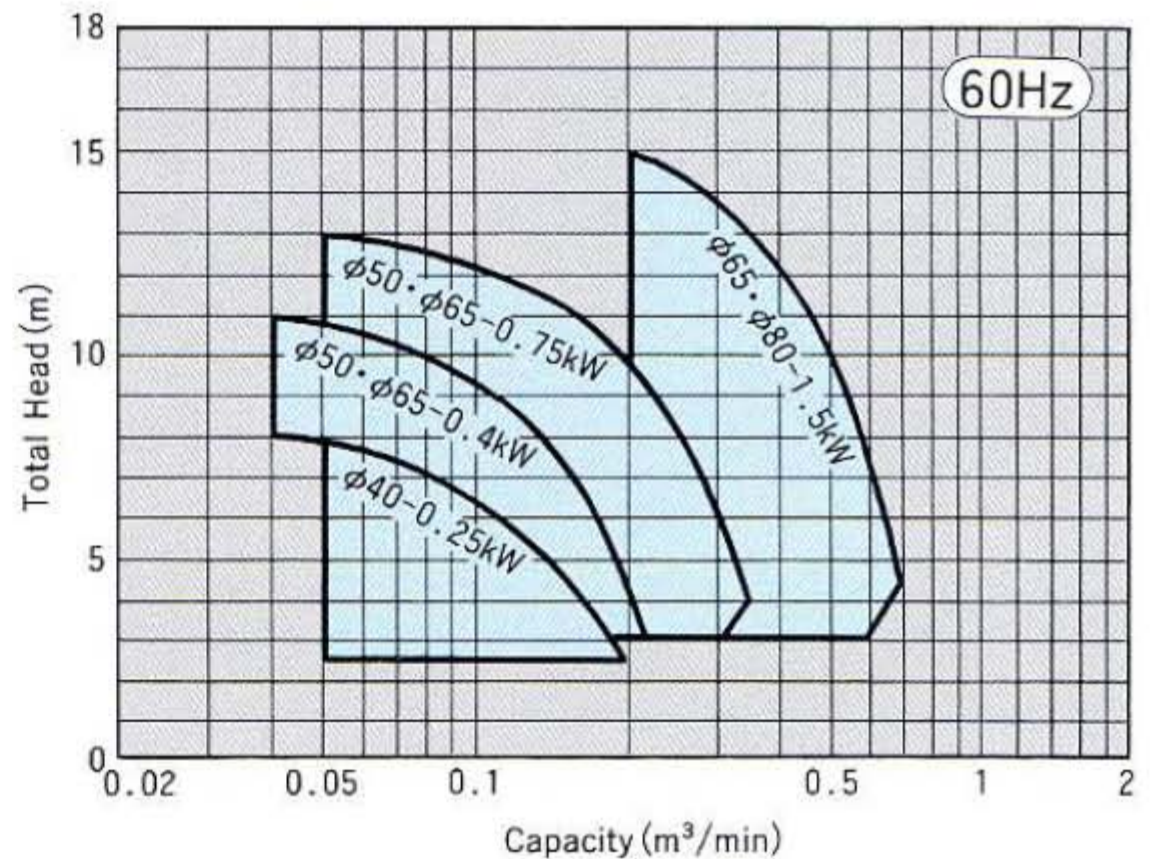
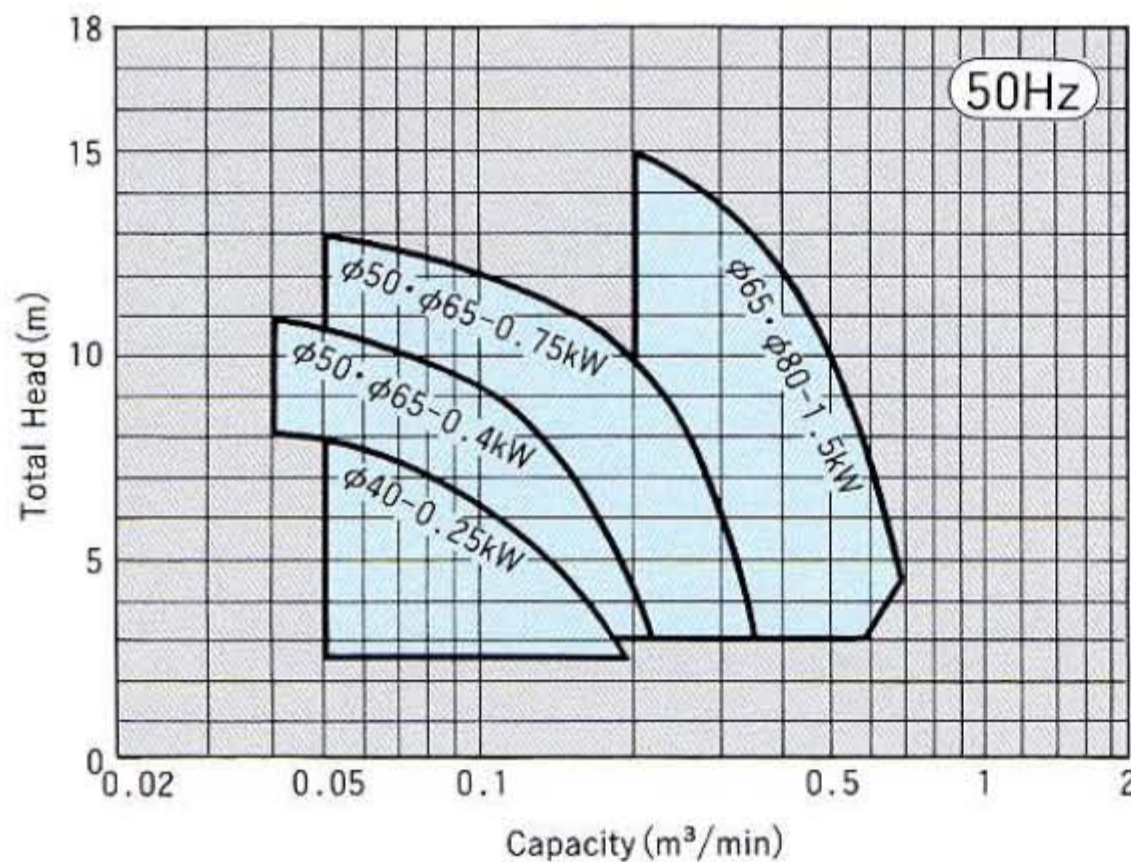
Flange Connection Set

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

Bore		Connection Part No.	Set Weight
mm	in		kg
40	1 1/2	F40	☆
50	2	F50	☆
65	2 1/2	F65B	5.5
		F65	7
80	3	F80	9.5

☆Built-in with the pump proper.

Performance Curves



AH

High Head type

〈Bore〉 40 to 100mm (1 1/2 to 4")

〈Output〉 0.4 to 11kW

S E R I E S

Standard Specifications

Bore		Pump Model	Connection Part No.		Phase	Output kW	Poles	Capacity-Total Head m ³ /min-m		Solid Passage Size mm×mm	Weight (Pump Proper) kg
mm	(in)		Automatic Connection	Flange Connection				50Hz	60Hz		
40	1 1/2	AH401T	P40	F40	Three	0.4	2	0.05-13.4	0.05-13.2	15×10	17
50	2	AH501	P50	F50	Three	0.75	2	0.1-14.0	0.1-14.8	15×10	18
		1.5				0.2-18.4		0.2-18.2	20×15	25.5	
65	2 1/2	AH501	P65B	F65B	Three	0.75	2	0.1-14.0	0.1-14.8	15×10	18
		1.5				0.2-18.4		0.2-18.2	20×15	25.5	
		AH502	P65	F65		2.2		0.3-20.3	0.3-20.3	20×15	46
		AH801				3.7		0.5-23.2	0.5-24.5		55
80	3	AH651	P80	F80	Three	2.2	2	0.3-20.3	0.3-20.3	20×15	46
		AH801				3.7		0.5-23.2	0.5-24.5		55
		AH1001	5.5	0.6-28.0		0.6-28.6		82			
			7.5	0.8-29.5		0.8-31.0		92			
100	4	AH801	P100	F100	Three	3.7	2	0.5-23.2	0.5-24.5	20×15	55
		5.5				0.6-28.0		0.6-28.6	82		
		AH1001	7.5	0.8-29.5		0.8-31.0		92			
			11	1.0-37.4		1.0-38.8		120			



AH1001-P100

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

Standard Accessories

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

6m for under 0.75kW

8m for over 1.5kW

Automatic Connection Set

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

Bore		Connection Part No.	Set Weight	Connection Weight
mm	in		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

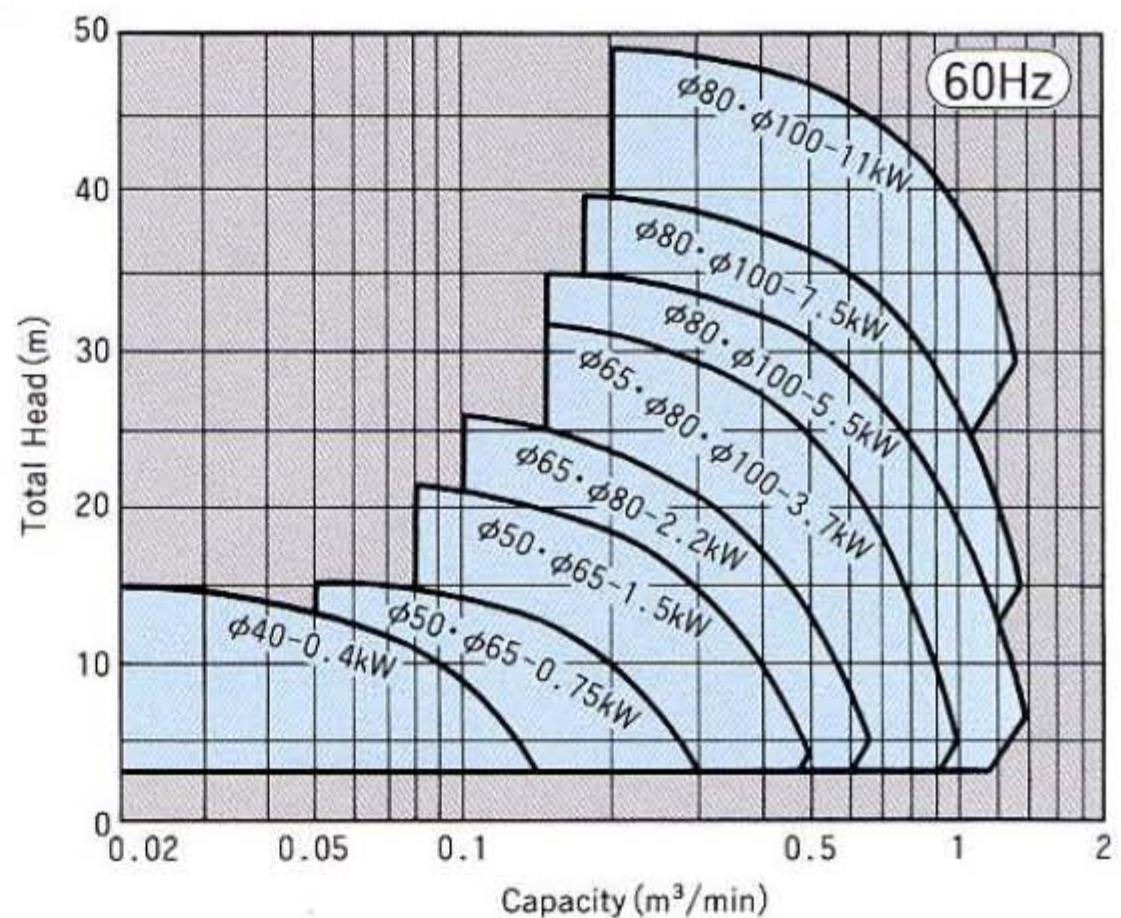
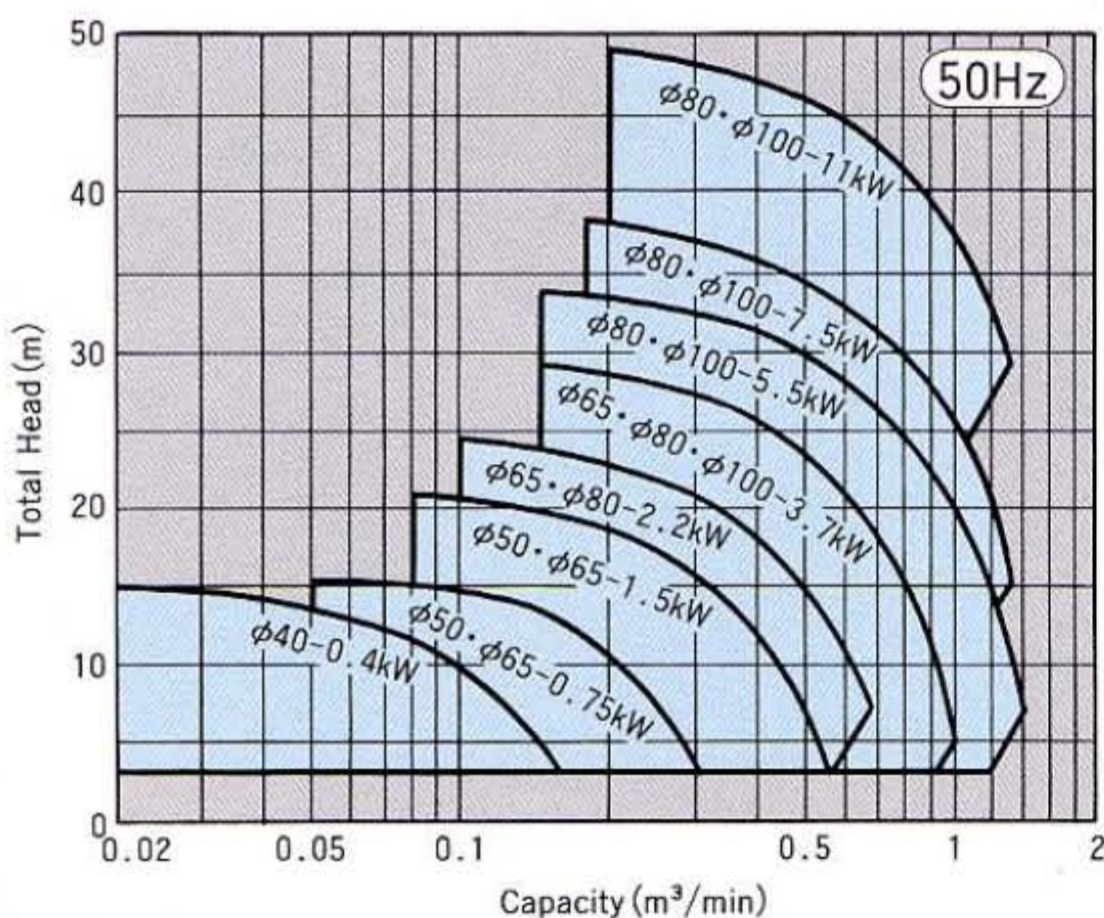
Flange Connection Set

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

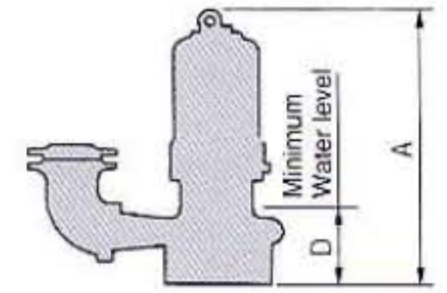
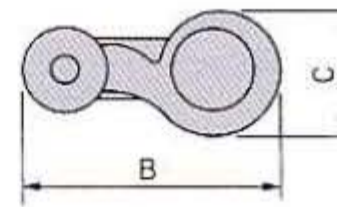
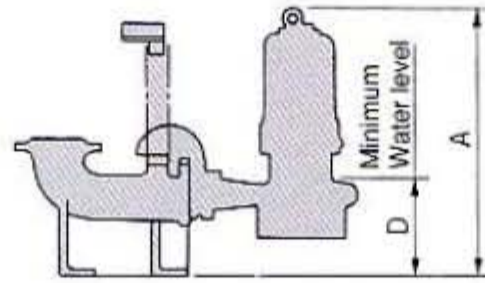
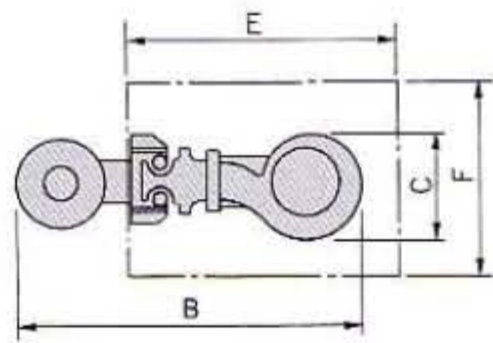
Bore		Connection Part No.	Set Weight
mm	in		kg
40	1 1/2	F40	☆
50	2	F50	☆
65	2 1/2	F65B	5.5
		F65	7
80	3	F80	9.5
100	4	F100	11

☆Built-in with the pump proper.

Performance Curves



Dimensions



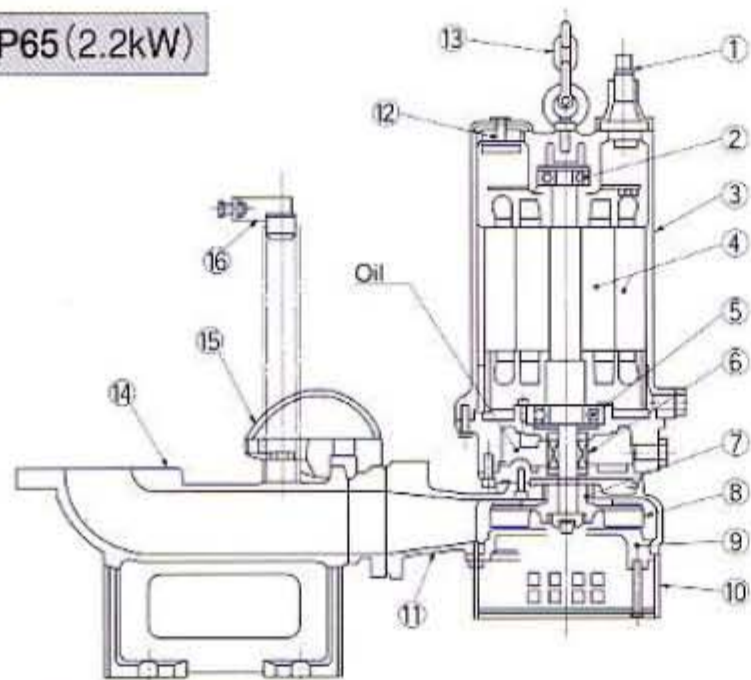
Automatic Connection

Flange Connection

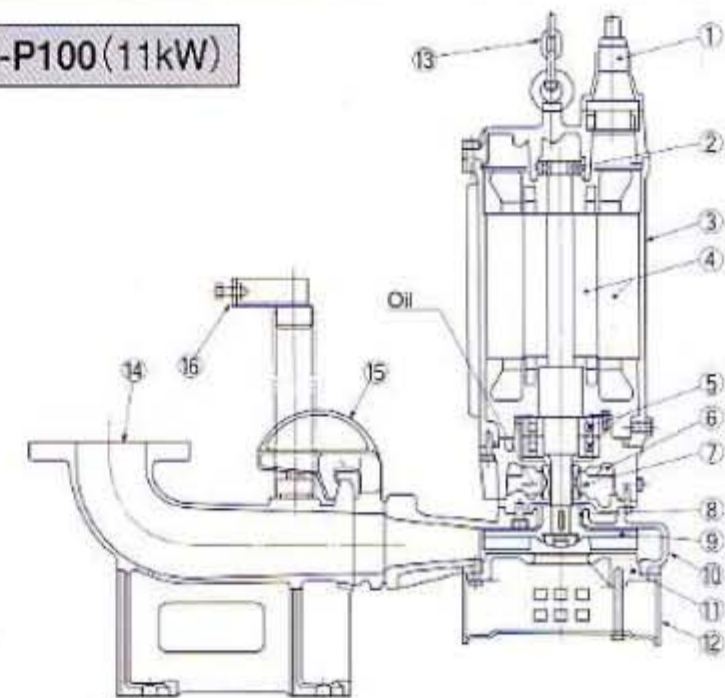
	Automatic Connection										Flange Connection								
	Pump Model	Connection Part No.	Output kW	A	B	C	D	E	F		Pump Model	Connection Part No.	Output kW	A	B	C	D		
A	A401T	P40	0.25	431	447	171	180	550	350		A	A401T	F40	0.25	367	249	171	115	
	A501(T)	P50	0.4	451	447	171	180					A501(T)	F50	0.4	387	249	171	115	
		P65B	0.75	520	202	195							F65B	0.75	344	202	125		
	A652	P65	1.5	511	638	202	195							A652	F65	1.5	439	393	202
P80		551		714	235			F80	408										
AH	AH401T	P40	0.4	451	447	171	180	550	350		AH	AH401T	F40	0.4	387	249	171	115	
	AH501	P50	0.75	451	447	171	180					AH501	F50	0.75	387	249	171	115	
		P65B		520	190	165	AH501					F65B	344		190	120			
	AH502	P50	1.5	481	476	190	165					AH502	F50	1.5	436	278	190	120	
		P65B		549	205	200	550	350	AH502	F65B	373	211	150						
	AH651	P65	2.2	580	695	205	200	550	350		AH651	F65	2.2	530	450	211	150		
		P80		620	771	240	AH651					F80		465					
	AH801	P65	3.7	621	695	226	200	550	350		AH801	F65	3.7	571	450	226	150		
		P80		661	771		240					AH801		F80	465				
		P100		784								AH801		F100	482				
	AH1001	P80	5.5	690	843	276	250	700	600		AH1001	F80	5.5	618	573	276	175		
			7.5	725									653						
11.0			806	734															
P100		5.5	690	856	276	250	700	600		AH1001		F100	5.5	618	554	276	175		
		7.5	725										653						
		11.0	806										734						

Sectional View

AH651-P65 (2.2kW)



AH1001-P100 (11kW)



No	Part Name	Material
1	Cable	VCT
2	Ball Bearing (Upper)	—
3	Stator Casing	FC200
4	Motor	Shaft=SUS420J2
5	Ball Bearing (Upper)	—
6	Mechanical Seal	—
7	Seal Ring	SUS304
8	Impeller	FC200
9	Base Cover	FC200
10	Strainer	SPCC
11	Pump Casing	FC200
12	Auto Cut	—
13	Lifting Chain	SS400
14	Connection	FC200
15	Sliding Bracket	FC200
16	Guide Holder	SCS13

No	Part Name	Material
1	Cable	2RNCT
2	Ball Bearing (Upper)	—
3	Stator Casing	FC200
4	Motor	Shaft=SUS420J2
5	Ball Bearing (Upper)	—
6	Equalizer	N.B.R
7	Mechanical Seal	—
8	Seal Ring	SUS304
9	Impeller	FCD500
10	Pump Casing	FC200
11	Base Cover	FC200
12	Strainer	SPCC
13	Lifting Chain	SS400
14	Connection	FC200
15	Sliding Bracket	FC200
16	Guide Holder	SCS13

*Note VCT : Polyvinyl-chloride sheathed cabtyre cable 2RNCT : Chloroprene sheathed cabtyre cable SUS : Stainless steel

SCS : Stainless steel casting SS : Mild steel SPCC : Steel FC : Gray iron casting FCD : Ductile iron casting N.B.R. : Nitril Rubber

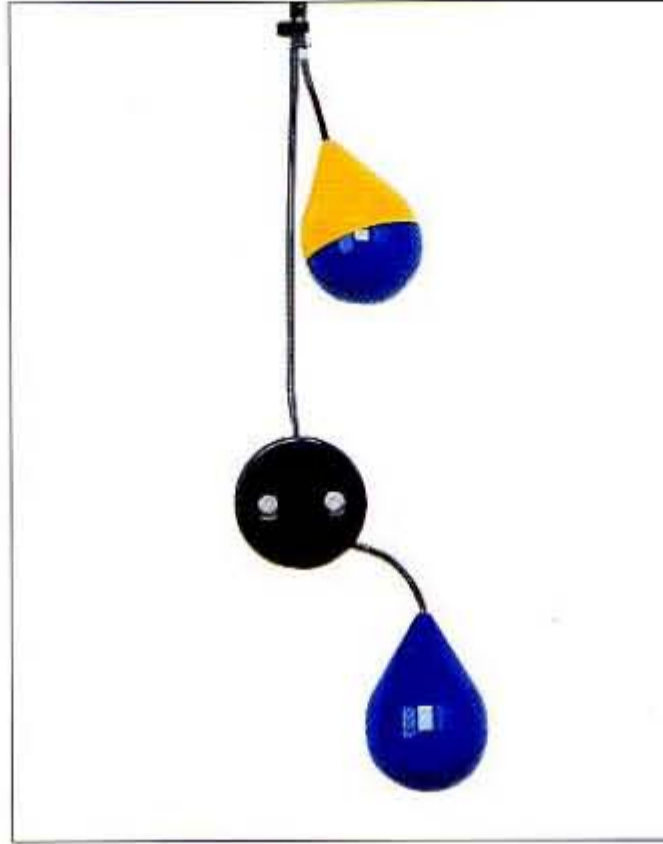
Special Accessories

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

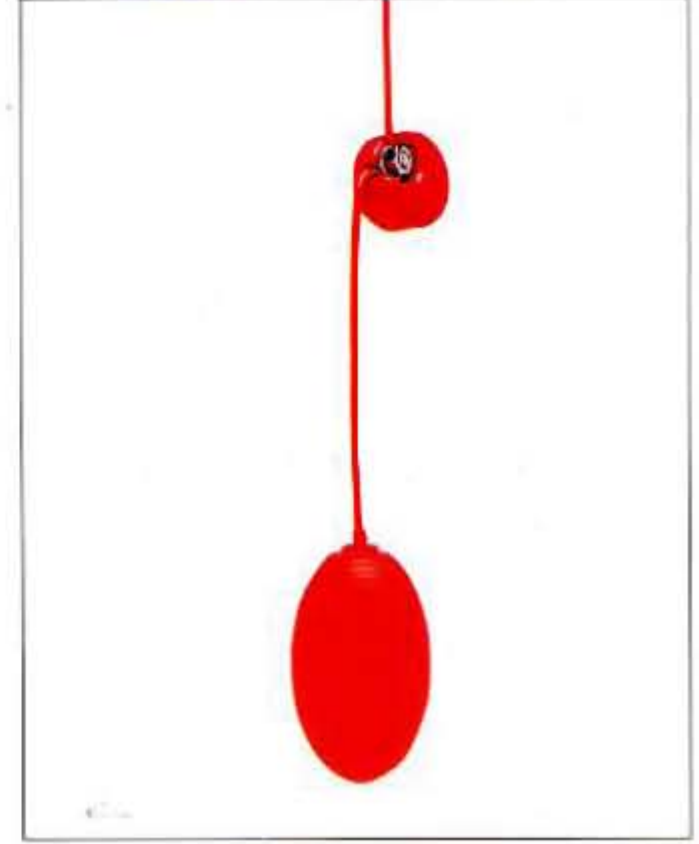
LC "Level Switch"



MS "Mini Switch"



FV "Oval Float"



Features

LC Useful for drinking water, waste water 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 waste water 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 waste water 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	Lead Switch	Lead Switch
Specific gravity of liquid	0.95~1.15	0.95~1.10	0.95~1.10
Liquid Temp	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 × ϕ 4.7mm	0.5mm ² ×2 cores × ϕ 5.8mm
Weight (including cable)	1.2kg (6m cable)	0.6kg (MS11, 6m cable)	1.0kg (6m cable)
Material	Case	Polypropylene resin	ABS resin
	Cable	VCTFK	PVC resin (soft type)
	Others	Chain : SUS304	Sinker : Cast iron with PVC resin coating

Specifications and dimensions are subject to change without notice.

ShinMaywa Industries, Ltd.

AMATECH ENGINEERING SDN BHD
 (Co. No. 533882-D)
 No. 23, Jalan PJU 3/46
 Sunway Damansara, 47810 Petaling Jaya
 Selangor Darul Ehsan
 Malaysia
 Tel : 603-7880 8782 (Hunting Line)
 Fax : 603-7880 8781
 E-mail : amatech@amatech.com.my
 Website: www.amatech.com.my



ShinMaywa ONO PLANT

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

Printed on recycled paper.

'04. 12. Z-E096A

Printed in Japan.2(B)