



**EBARA**

# SUBMERSIBLE SEMI-VORTEX SEWAGE PUMPS

CF3602UD

Model **DVS**

**PT. LUKES INDONESIA**

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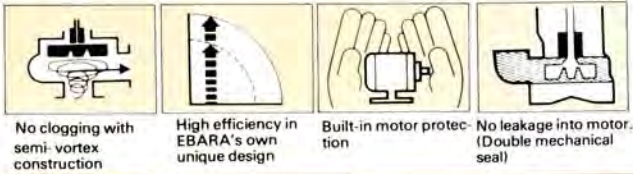
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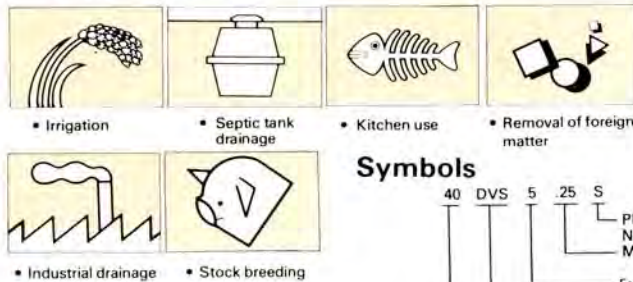


## Features



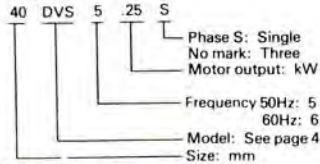
Easy handling Construction.

## Applications



Industrial drainage    Stock breeding

### Symbols

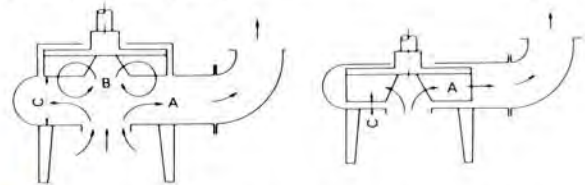


# The Semi-Vortex Pump: See the Difference!

The DVS model pump has a unique semi-vortex construction of EBARA's own design. This pump is as efficient as a conventional non-clog pump which uses the centrifugal force of eddy "A" (see below) to pump a liquid. As you can see, any foreign matter sucked into the pump must pass by the impeller, which can result in trouble caused by clinging grass and clogged stones.

With the vortex pump, foreign matter is expelled by the force of eddy "B" which is formed in the **wide space** between the impeller and the suction cover ("C"). There is less likelihood of clogging.

EBARA vortex pump      Conventional non-clog pump



## Specifications & Accessories

### Specifications:

Liquid handled:	River water, sewage
Liquid temperature:	50°C for Model DVS, DVSA 70°C for Model DVSH (0.4 to 0.75kW, Three phase, manual type) 80°C for Model DVSH (1.5 to 3.7kW, Three phase, manual type) 32°C for Model DVSJ

### Maximum Spherical Solids diameter:

Pump size	Solid size
40	28 mm
50	35 mm
65 (85)	45 mm

Max. submergence: 0.25 to 1.5 kW ..... 4 m  
2.2, 3.7 kW ..... 8 m

Min. submergence: Refer to water level (L.W.L) in dimensions.  
It is possible to operate at low water level for 30 minutes.

Synchronous speed: 3000 min<sup>-1</sup>/50Hz, 3600 min<sup>-1</sup>/60Hz

### Construction:

Mechanical seal	Double mechanical seal
Impeller	Semi-vortex

### Material:

Casing	Cast iron
Impeller	Cast iron
Shaft	403 stainless steel

### Mechanical seal

Impeller side:	Silicon carbide/Silicon carbide for 0.25 to 3.7 kW
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### Motor side:

Packing	NBR
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### Motor:

Insulation class	F
Output	Single phase ..... 0.25 to 0.75 kW Three phase ..... 0.25 to 3.7 kW

### Protection

Built-in thermal protector

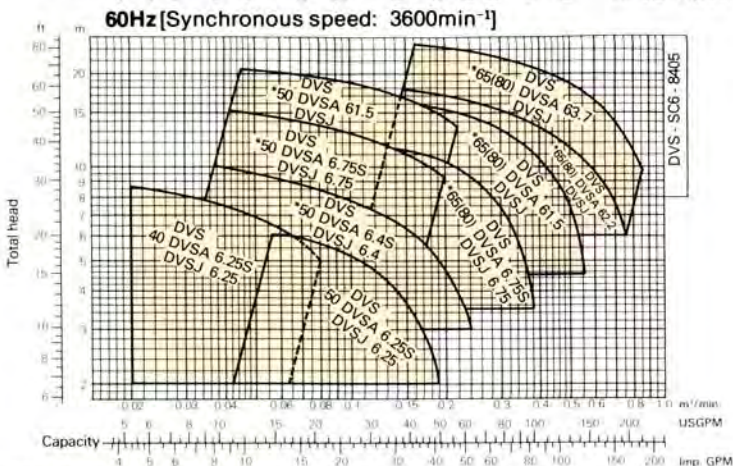
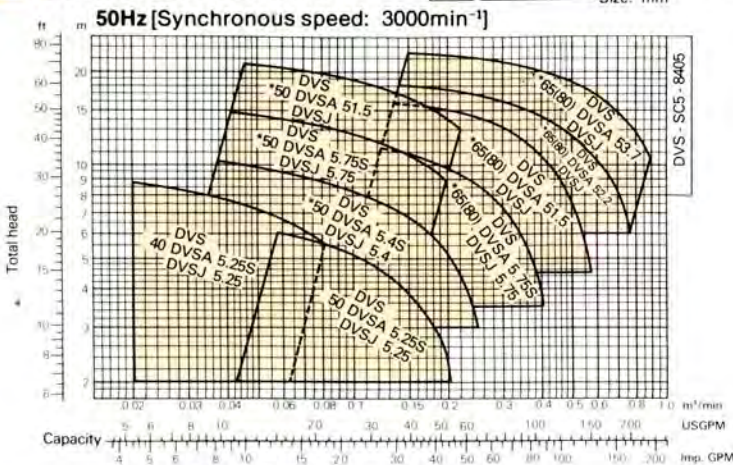
### Bearing

Sealed ball

### Accessories:

Companion flange with bolts	1 set
Submersible cable	0.25 to 1.5 kW ..... 6 m 2.2, 3.7 kW ..... 10 m
Quick discharge connector (option)	

## Selection charts



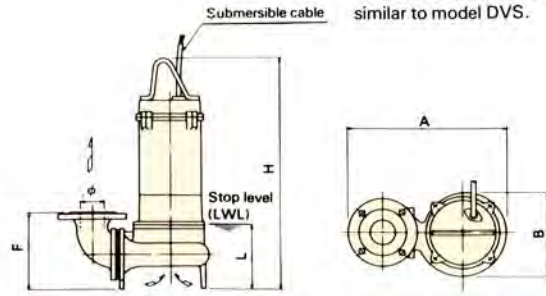
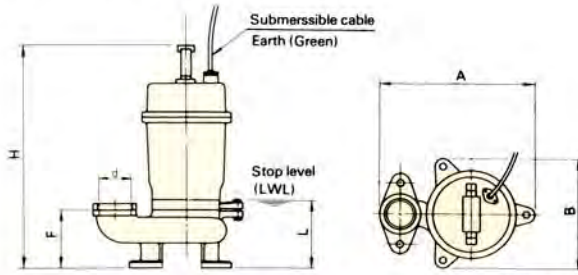
Note: DVSH models for hot water are limited to asterisk \* marked, 3 phase pumps only.



# Dimensions

## Manual type (Model DVS, DVSH)

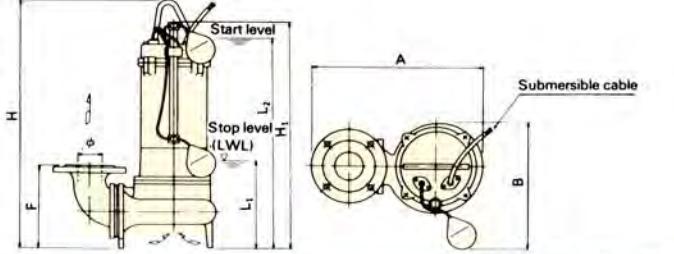
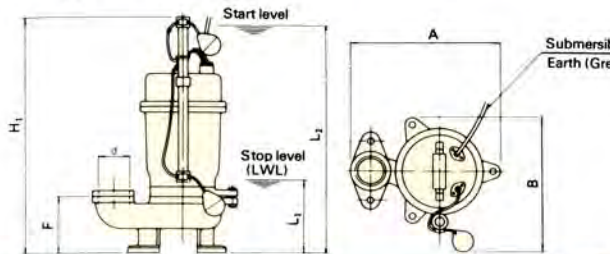
Dimensions of model DVSH is similar to model DVS.



Size mm	Model		Output kW	Phase	Pump and Motor					Interval	Weight (Mass) kg
	50Hz	60Hz			d	A	B	F	H		
40	40DVS5.25S	40DVS6.25S	0.25	Single	PT-1 $\frac{1}{2}$	233	146	66	360	95	14.6
	40DVS5.25	40DVS6.25	0.25	Three	PT-1 $\frac{1}{2}$	233	146	66	360	95	13.5
		50DVS6.25S	0.25	Single	PT-2	227	139	83	376	105	15.1
		50DVS6.25	0.25	Three	PT-2	227	139	83	376	105	14.0
		50DVS5.25S	0.25	Single	PT-2	239	160	83	376	105	15.2
50	50DVS5.25	50DVS6.25	0.25	Three	PT-2	239	160	83	376	105	14.1
	50DVS5.4S	50DVS6.4S	0.4	Single	PT-2	239	160	83	435	105	17.7
	50DVS5.4	50DVS6.4	0.4	Three	PT-2	239	160	83	398	105	14.1
	50DVS5.75S	50DVS6.75S	0.75	Single	PT-2	249	171	83	400	105	19.0
	50DVS5.75	50DVS6.75	0.75	Three	PT-2	249	171	83	400	105	19.0
	50DVS5.1.5	50DVS6.1.5	1.5	Three	PT-2	249	171	83	433	105	26.9

Size $\phi$ mm	Model		Output kW	Phase	Pump and Motor					Interval	Weight (Mass) kg
	50Hz	60Hz			A	B	F	H	L		
65	65DVS5.75S	65DVS6.75S	0.75	Single	396	195	178	503	125	27	
	65DVS5.75	65DVS6.75	0.75	Three	396	195	178	503	125	25	
	65DVS5.1.5	65DVS6.1.5	1.5	Three	396	195	178	514	125	34.1	
	65DVS5.2.2	65DVS6.2.2	2.2	Three	427	237	201	590	155	50	
	65DVS5.3.7	65DVS6.3.7	3.7	Three	427	237	201	650	155	59	
80	80DVS5.75S	80DVS6.75S	0.75	Single	411	313	183	503	125	27	
	80DVS5.75	80DVS6.75	0.75	Three	411	313	183	503	125	26	
	80DVS5.1.5	80DVS6.1.5	1.5	Three	411	313	183	514	125	35.1	
	80DVS5.2.2	80DVS6.2.2	2.2	Three	442	328	206	590	155	51	
	80DVS5.3.7	80DVS6.3.7	3.7	Three	442	328	206	650	155	60	

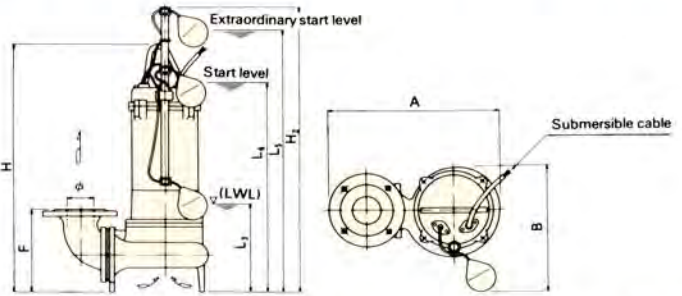
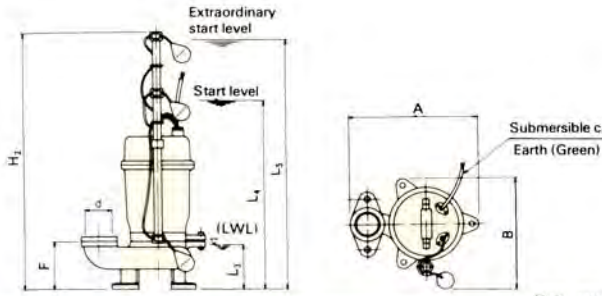
## Automatic type (Model DVSA)



Size mm	Model		Output kW	Phase	Pump and Motor					Interval	Weight (Mass) kg	
	50Hz	60Hz			d	A	B	F	H <sub>1</sub>			L <sub>1</sub>
40	40DVSA5.25S	40DVSA6.25S	0.25	Single	PT-1 $\frac{1}{2}$	233	308	66	530	150	340	15.0
	40DVSA5.25	40DVSA6.25	0.25	Three	PT-1 $\frac{1}{2}$	233	308	66	530	150	340	14.5
		50DVSA6.25S	0.25	Single	PT-2	245	305	83	530	150	340	16.1
		50DVSA6.25	0.25	Three	PT-2	245	305	83	530	150	340	15.0
		50DVS5.25S	50DVS6.25S	0.25	Single	PT-2	245	315	83	530	150	340
50	50DVSA5.25	50DVSA6.25	0.25	Three	PT-2	245	315	83	530	150	340	15.1
	50DVSA5.4S	50DVSA6.4S	0.4	Single	PT-2	245	315	83	530	150	340	20.0
	50DVSA5.4	50DVSA6.4	0.4	Three	PT-2	245	315	83	530	150	340	18.3
	50DVSA5.75S	50DVSA6.75S	0.75	Single	PT-2	249	321	83	530	150	340	20.5
	50DVSA5.75	50DVSA6.75	0.75	Three	PT-2	249	321	83	530	150	340	19.5
	50DVSA5.1.5	50DVSA6.1.5	1.5	Three	PT-2	249	321	83	530	150	340	30.4

Size $\phi$ mm	Model		Output kW	Phase	Pump and Motor					Interval	Weight (Mass) kg	
	50Hz	60Hz			A	B	F	H	H <sub>1</sub>			L <sub>1</sub>
65	65DVSA5.75S	65DVSA6.75S	0.75	Single	396	338	178	540	530	150	490	28
	65DVSA5.75	65DVSA6.75	0.75	Three	396	338	178	540	530	150	490	26
	65DVSA5.1.5	65DVSA6.1.5	1.5	Three	396	338	178	572	530	150	490	35.4
	65DVSA5.2.2	65DVSA6.2.2	2.2	Three	427	359	201	715	730	200	690	51
	65DVSA5.3.7	65DVSA6.3.7	3.7	Three	427	359	201	775	730	200	690	60
80	80DVSA5.75S	80DVSA6.75S	0.75	Single	411	338	183	540	530	150	490	28
	80DVSA5.75	80DVSA6.75	0.75	Three	411	338	183	540	530	150	490	27
	80DVSA5.1.5	80DVSA6.1.5	1.5	Three	411	338	183	572	530	150	490	36.4
	80DVSA5.2.2	80DVSA6.2.2	2.2	Three	442	359	206	715	730	200	690	52
	80DVSA5.3.7	80DVSA6.3.7	3.7	Three	442	359	206	775	730	200	690	61

## Paralle Alternate type (Model DVSJ)



Size mm	Model		Output kW	Phase	Pump and Motor					Interval	Weight (Mass) kg		
	50Hz	60Hz			d	A	B	F	H <sub>2</sub>			L <sub>1</sub>	L <sub>2</sub>
40	40DVSJ5.25S	40DVSJ6.25S	0.25	Single	PT-1 $\frac{1}{2}$	233	308	66	640	120	410	600	15
	40DVSJ5.25	40DVSJ6.25	0.25	Three	PT-1 $\frac{1}{2}$	233	308	66	640	120	410	600	14.5
		50DVSJ6.25S	0.25	Single	PT-2	245	305	83	640	120	410	600	16.1
		50DVSJ6.25	0.25	Three	PT-2	245	305	83	640	120	410	600	15
		50DVSJ5.25S	50DVSJ6.25S	0.25	Single	PT-2	245	315	83	640	120	410	600
50	50DVSJ5.25	50DVSJ6.25	0.25	Three	PT-2	245	315	83	640	120	410	600	15.1
	50DVSJ5.4S	50DVSJ6.4S	0.4	Single	PT-2	245	315	83	640	120	410	600	20.2
	50DVSJ5.4	50DVSJ6.4	0.4	Three	PT-2	245	315	83	640	120	410	600	18.5
	50DVSJ5.75S	50DVSJ6.75S	0.75	Single	PT-2	249	321	83	640	120	410	600	20.7
	50DVSJ5.75	50DVSJ6.75	0.75	Three	PT-2	249	321	83	640	120	410	600	19.7
	50DVSJ5.1.5	50DVSJ6.1.5	1.5	Three	PT-2	249	321	83	640	120	410	600	30.4

Size $\phi$ mm	Model		Output kW	Phase	Pump and Motor					Interval	Weight (Mass) kg		
	50Hz	60Hz			A	B	F	H	H <sub>2</sub>			L <sub>1</sub>	L <sub>2</sub>
65	65DVSJ5.75S	65DVSJ6.75S	0.75	Single	396	338	178	540	640	120	410	600	28
	65DVSJ5.75	65DVSJ6.75	0.75	Three	396	338	178	540	640	120	410	600	26
	65DVSJ5.1.5	65DVSJ6.1.5	1.5	Three	396	338	178	572	640	120	410	600	35.4
	65DVSJ5.2.2	65DVSJ6.2.2	2.2	Three	427	359	201	715	840	170	610	800	51
	65DVSJ5.3.7	65DVSJ6.3.7	3.7	Three	427	359	201	775	840	170	610	800	60
80	80DVSJ5.75S	80DVSJ6.75S	0.75	Single	411	338	183	540	640	120	410	600	28
	80DVSJ5.75	80DVSJ6.75	0.75	Three	411	338	183	540	640	120	410	600	27
	80DVSJ5.1.5	80DVSJ6.1.5	1.5	Three	411	338	183	572	640	120	410	600	36.4
	80DVSJ5.2.2	80DVSJ6.2.2	2.2	Three	442	359	206	715	840	170	610	800	52
	80DVSJ5.3.7	80DVSJ6.3.7	3.7	Three	442	359	206	775	840	170	610	800	61

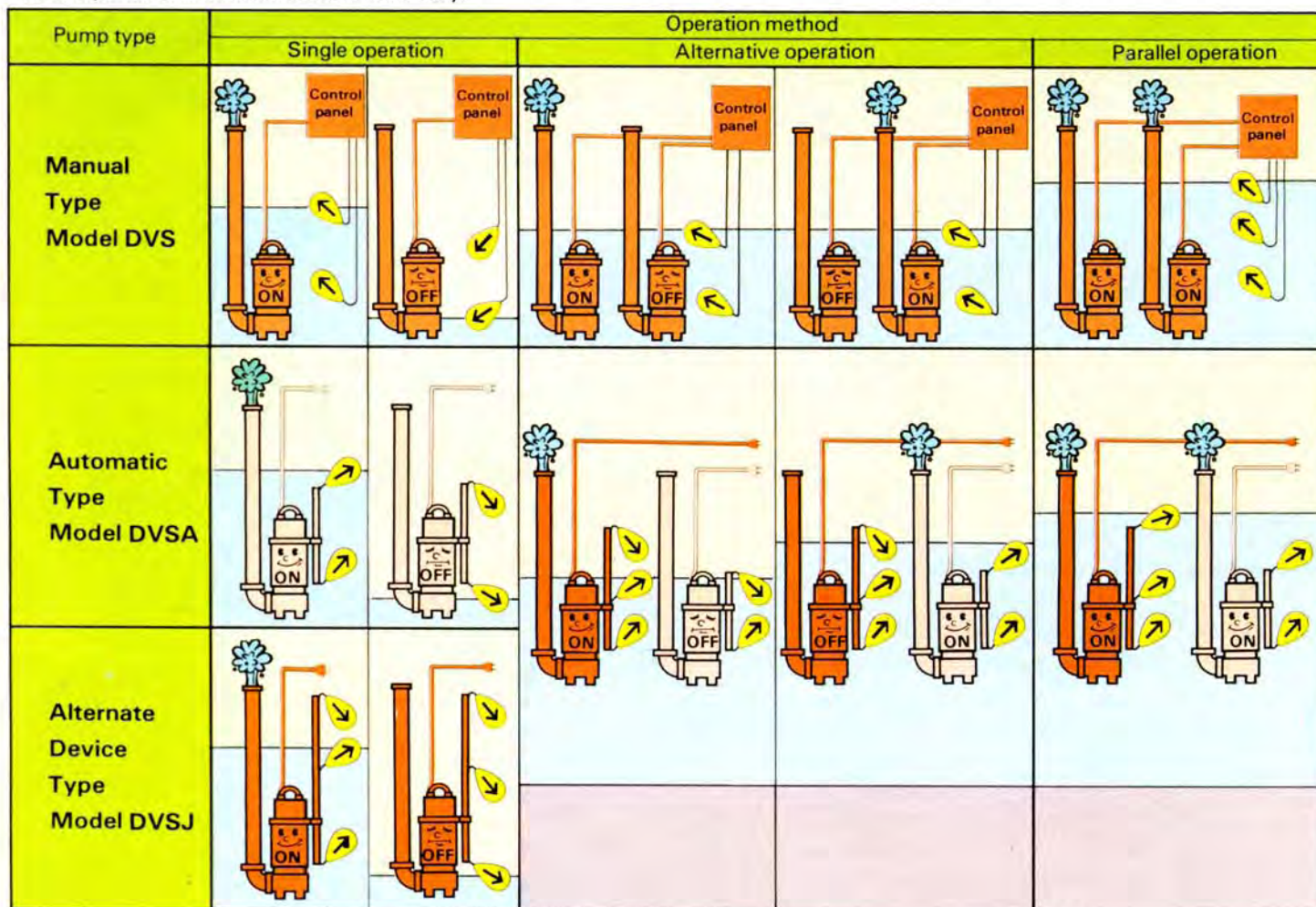


## EBARA submersible sewage pumps model list

Name	Type	Manual type	Automatic type	Parallel alternate device type	Max. spherical Solid	Impeller type
Sump pumps		DS	DSA	DSJ	Below 10% of discharge size	Semi-open
Sump and effluent pumps		DN	DNA	DNJ	Below 40% of discharge size	Non-clog
Semi-vortex sewage pumps		DVS	DVSA	DVSJ	70% of discharge size	Semi-vortex
Sewage pumps		DL	DLA	DLJ	$\phi 50 \sim 100$ : 60% of discharge size $\phi 150 \sim 300$ : 70 ~ 90mm	Non-clog
Sewage pumps with cutter		DF	DFA	DFJ	Below 60% of discharge size	Non-clog
Vortex sewage pumps		DV	DVA	DVJ	Below 100% of discharge size	Vortex
Sewage pumps large capacity		DSC			75mm	Non-clog

## Automatic operation of a submersible pump

Nearly all sewage pumps operate automatically according to the liquid level in the sewage tank. A manual pump requires a control panel and float switches for automatic operation. EBARA submersible pumps feature built in automatic operation mechanisms which make control panels and float switches unnecessary.



\*All specifications subject to change without notice.  
In this catalog, the particulars in | are in accordance with the International System of Units (SI) and given for reference only.



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