



EBARA

D'Series SUBMERSIBLE PUMP

Model **DS/DVS/DSC4/DML/DL/DL-C** 60Hz



**Sump Pump
TYPE DS**



**Effluent Pump
TYPE DVS**



**Sewage Pump
TYPE DML**



**Sewage Pump
TYPE DL**

EBARA D'Series SUBMERSIBLE PUMP - *Quality that shows....*

For Sump, Effluent,
Waste water
and Sewage.

A comprehensive range
of Reliable, High quality
Submersible pumps.

Of Robust Cast iron
construction, with many
design features.

Model DS

■ FEATURES

- Efficient Semi-Open Impeller.
- Strainer prevents blockages.

■ APPLICATIONS

- Purification tank drainage
- Rain and spring water drainage
- Water supply

Model DVS

■ FEATURES

- Semi-Vortex Impeller offers non-clog operation and allows pumping of foreign matter up to 60-70% of discharge size.
- Easy Maintenance.

■ APPLICATIONS

- Ideal for waste water applications containing soft or fibrous solids
- Industrial waste water drainage
- Septic effluent
- Miscellaneous drainage

Model DML

■ FEATURES

- Non-Clog Single channel Impeller 3" passage.
- Range of Models up to 150mm discharge.
- Dry pit is available as optional.

■ APPLICATIONS

- Sewage
- Waste water

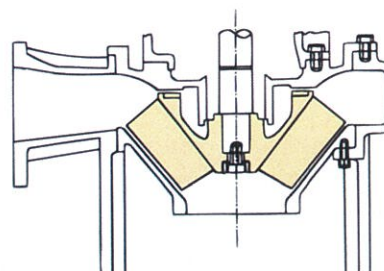
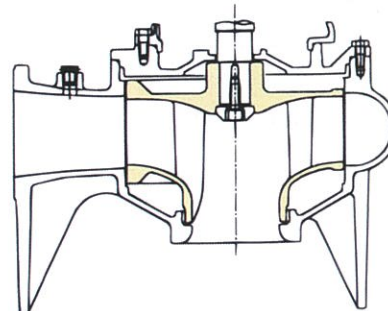
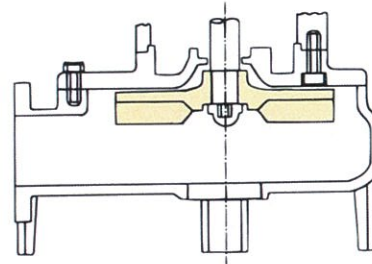
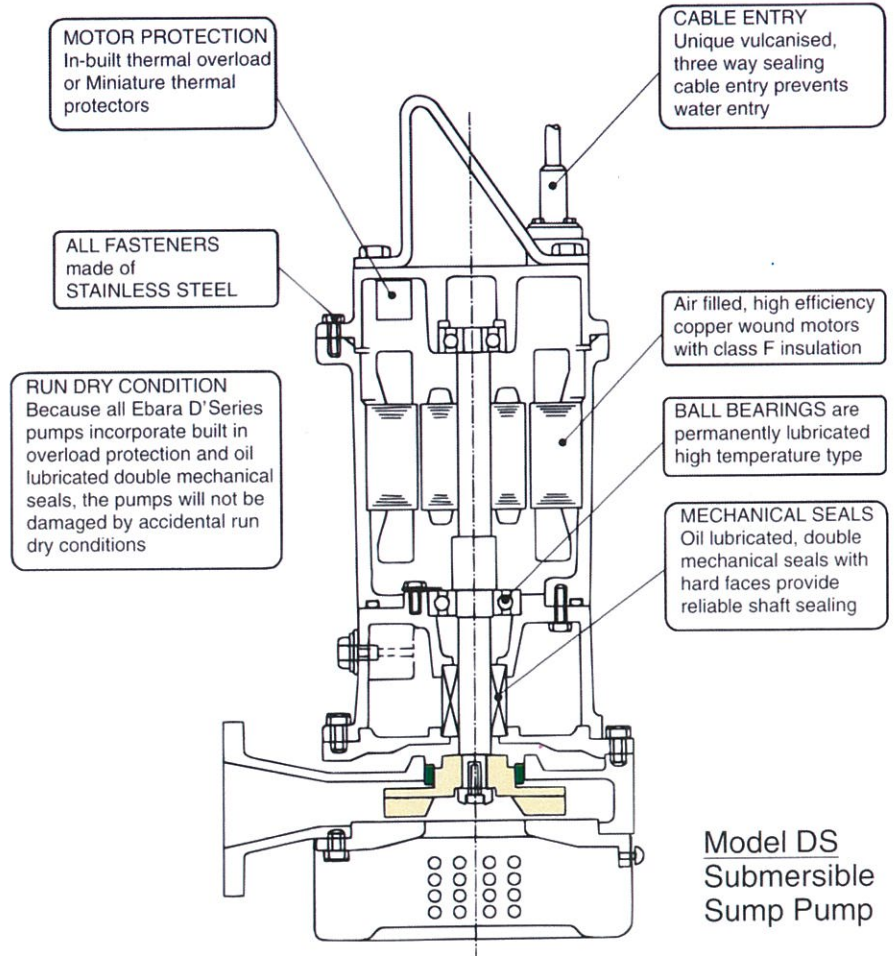
Model DL

■ FEATURES

- Non-Clog Type Impellers prevents clogging by fibrous matter.
- Range of Models up to 300mm discharge size and 45kW available.

■ APPLICATIONS

- Sewage
- Waste water



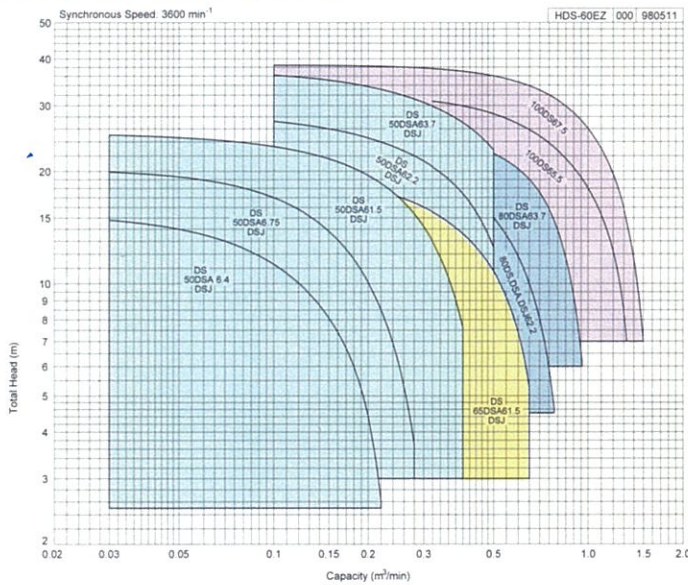
Model DS

SPECIFICATIONS

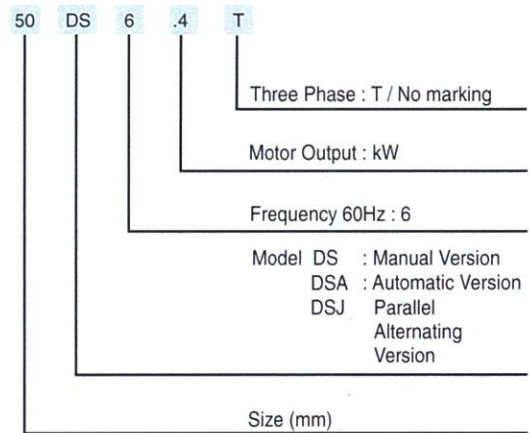


Pump			
Liquid Handled	Type of liquid	Sump	
	Temperature	0-40°C for DS, DSA; 0-32°C for DSJ	
	Max solids size	50:5mm, 65:6mm, 80:7mm, 100:8mm	
Maximum Submergence		4m (0.4-1.5KW) ; 8m (2.2-7.5KW)	
Minimum Submergence		Refer to water level (L.W.L) in Dimensions. It is possible to operate at low water level for 30min.	
Synchronous Speed		3600min ⁻¹	
Construction	Mechanical Seal	Double mechanical seal	
	Impeller	Semi-open	
	Bearing	Pre-lubricated bearing	
Material	Casing	Cast iron	
	Impeller	Cast iron	
	Shaft	403 Stainless Steel	
	Mechanical Seal	Impeller side	Silicon carbide
		Motor side	Ceramic / Carbon
	Packing	NBR	
Motor			
Type	2 pole, air-filled watertight		
Insulation	Class E or Class F		
Protection	Built in overload protector		
Accessories			
Standard	Submersible cable: 0.4-1.5KW x 6m, 2.2-7.5KW x 10m, Float switch (for DSA, DSJ)		
Option	Quick discharge connector, Float switch (for DS only)		

PERFORMANCE CHART

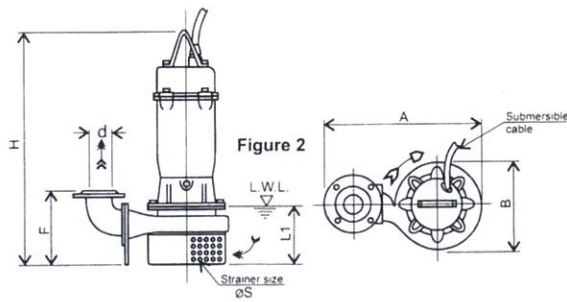
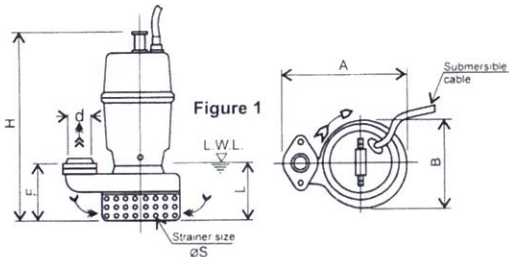


MODEL CODE



DIMENSIONS

Manual type



Unit: mm

Size	Model	Output kW	Phase	Pump and Motor						L.W.L	Mass kg
				d	A	B	F	H	S		
50	50DS6.4	0.4	Three	PT-2	260	186	99	396	8	110	16.0
	50DS6.75	0.75	Three	PT-2	260	186	99	396	8	110	16.6
	50DS6.1.5	1.5	Three	PT-2	266	200	115	443	10	120	25.4

Unit: mm

Size	Model	Output kW	Pump and Motor						L.W.L	Mass kg
			A	B	F	H	S			
50	50DS6.2	2.2	433	245	198	619	10	160	55.4	
	50DS6.7	3.7	433	245	198	619	10	160	60.9	
65	65DS6.1.5	1.5	407	210	197	496	10	120	34.5	
	80DS6.2	2.2	503	268	215	625	10	160	59.0	
80	80DS6.7	3.7	503	268	215	625	10	160	64.2	
	100DS6.5	5.5	615	309	257	730	13	200	92.1	
100	100DS6.7.5	7.5	615	309	257	730	13	200	103.7	

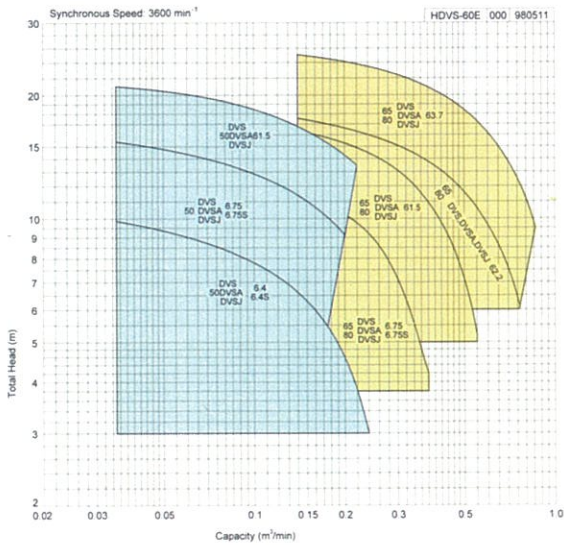
Model DVS

SPECIFICATIONS

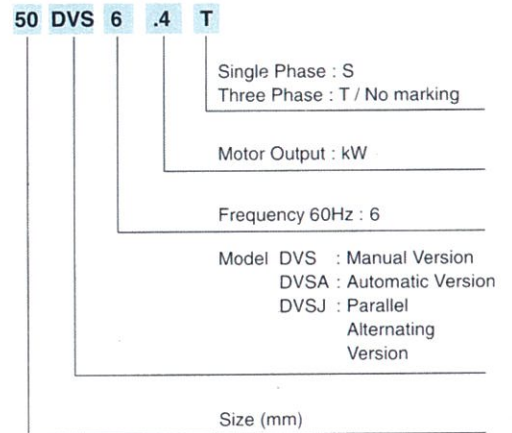


Pump			
Liquid Handled	Type of liquid	River water, Effluent	
	Temperature	0-40°C for DVS, DVSA; 0-32°C for DVSJ	
	Pump size: Max solids size	50:32mm, 65(80) : 45mm or 56mm	
Maximum Submergence		4m (0.4-1.5KW) ; 8m (2.2-3.7KW)	
Minimum Submergence		Refer to water level (L.W.L) in Dimensions. It is possible to operate at low water level for 30min.	
Synchronous Speed		3600min ⁻¹	
Construction	Mechanical Seal	Duble mechanical seal	
	Impeller	Semi-Vortex	
	Bearing	Prelubricated bearing	
Material	Casing	Cast iron	
	Impeller	Cast iron	
	Shaft	403 Stainless Steel	
	Mechanical Seal	Impeller side	Silicon carbide
		Motor side	Ceramic / Carbon
	Packing	NBR	
Motor			
Type	2 pole, air-filled watertight		
Insulation	Class E or Class F		
Protection	Built in thermal protector		
Accessories			
Standard	Submersible cable: 0.4-1.5KW x 6m, 2.2-3.7KW x 10m, Float switch (for DVSA, DVSJ)		
Option	Quick discharge connector, Float switch (for DVS only)		

PERFORMANCE CHART

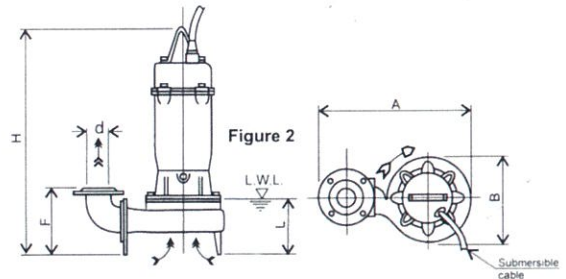
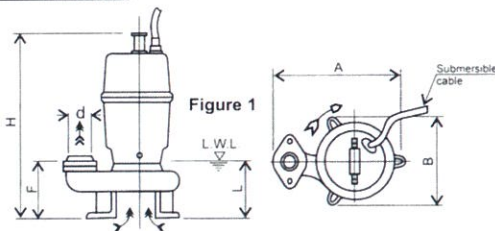


MODEL CODE



DIMENSIONS

Manual type



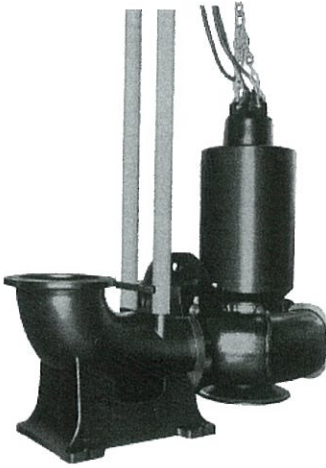
Size	Model	Output kW	Phase	Pump and Motor					L.W.L	Mass kg
				d	A	B	F	H		
50	50DVS6.4S	0.4	Single	PT-2	239	160	83	435	105	17.7
	50DVS6.4	0.4	Three	PT-2	239	160	83	398	105	14.1
	50DVS6.75S	0.75	Single	PT-2	249	171	83	400	105	19.0
	50DVS6.75	0.75	Three	PT-2	249	171	83	400	105	19.0
	50DVS6.15	1.5	Three	PT-2	249	171	83	433	105	26.9

Size	Model	Output kW	Phase	Pump and Motor					L.W.L	Mass kg
				A	B	F	H	L		
65	65DVS6.75S	0.75	Single	396	195	178	503	125	27	
	65DVS6.75	0.75	Three	396	195	178	503	125	25	
	65DVS6.15	1.5	Three	396	195	178	514	125	34.1	
	65DVS6.2	2.2	Three	427	237	201	590	155	50	
	65DVS6.37	3.7	Three	427	237	201	650	155	59	

80	80DVS6.75S	0.75	Single	411	313	183	503	125	27
	80DVS6.75	0.75	Three	411	313	183	503	125	26
	80DVS6.15	1.5	Three	411	313	183	514	125	35.1
	80DVS6.2	2.2	Three	442	328	206	590	155	51
	80DVS6.37	3.7	Three	442	328	206	650	155	60

Model DSC4

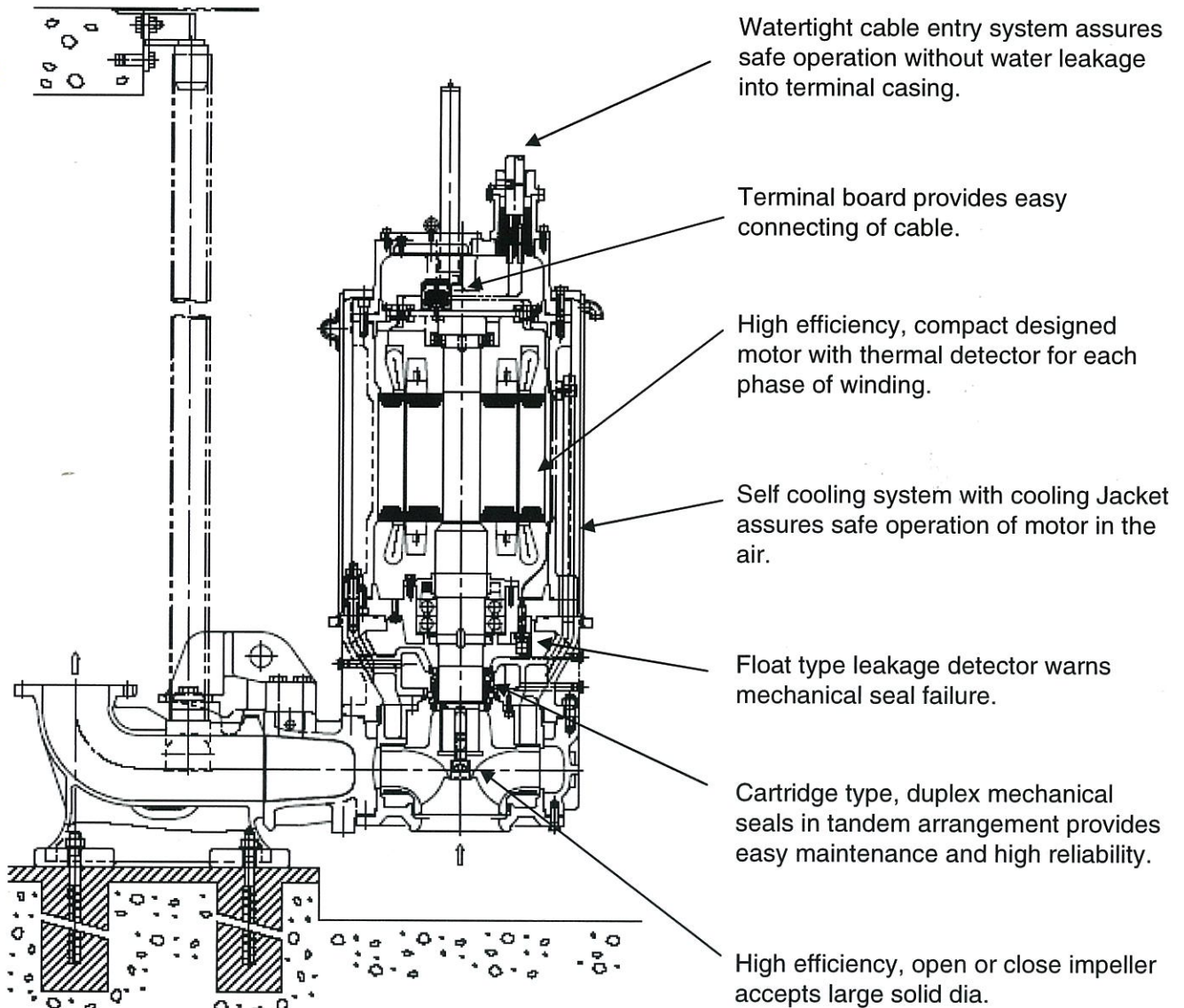
SPECIFICATIONS



Standard Specification		Option
Design	Capacity	2-25 m ³ /min (530-6600 USGPM)
	Total head	7-72m (23-236 ft)
	Liquid temp.	0-40°C
	Max. submergence	35m
Construction	Impeller	Open / Close
	Shaft seal	Cartridge type duplex mechanical seal in tandem arrangement
		Upper: Carbon/Ceramic Lower: Silicon Carbide/Silicon Carbide
	Bearing	Grease lubricated ball bearing
	Driver	Air filled water tight electric motor with cooling jacket
Starting method: D.O.L.		
Mounting method	Quick discharge connector(QDC) with guide pipes for wet pit installation	
Accessories	10m water tight rubber insulated flexible cable	Temp. detector for Thrust brg.
	Built-in winding temp. detectors for each phase	
	Built-in float type leakage detector	
Codes & Standards	JIS, JEC(see Note)	

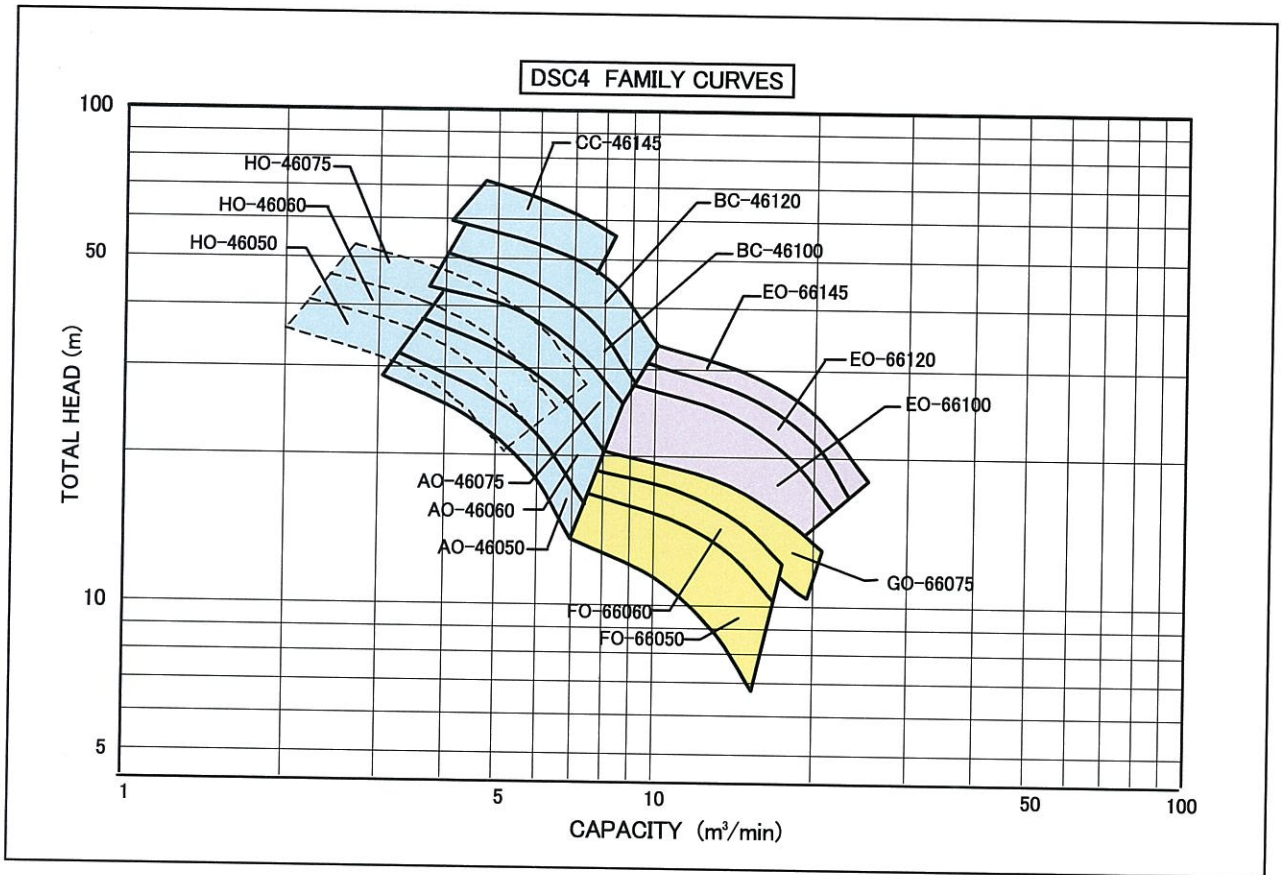
Note:
JIS: Japanese Industrial Standard
JEC: Japanese Electrotechnical Committee

SECTION DRAWING

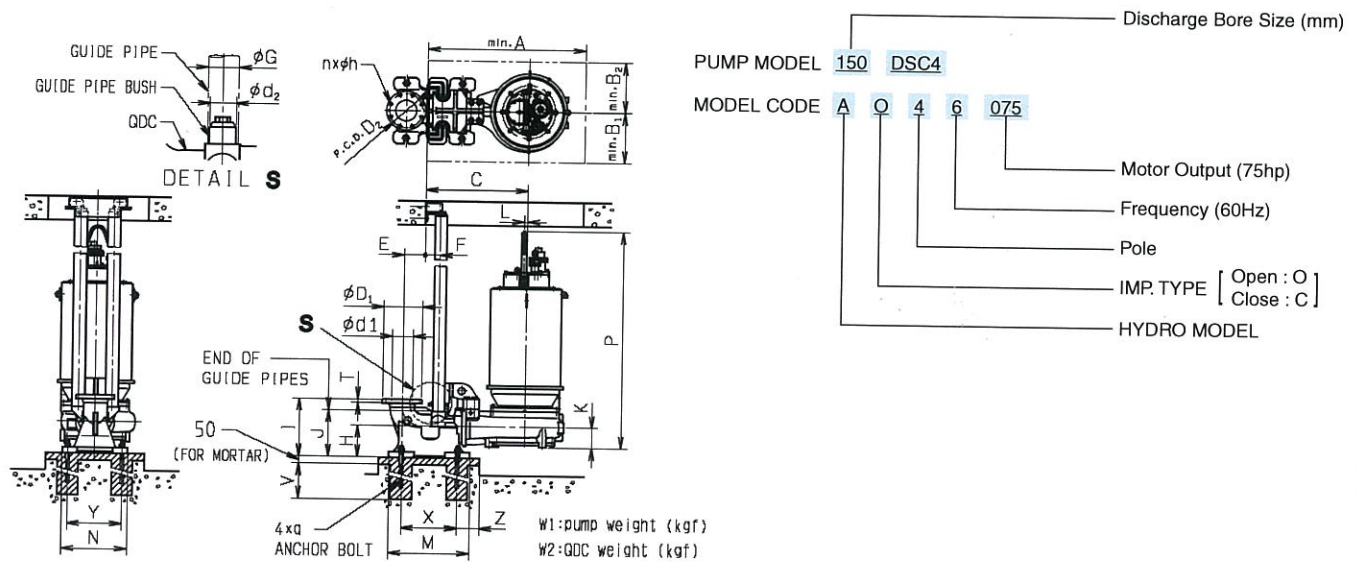


Model DSC4

PERFORMANCE CHART



QUICK DISCHARGE COUPLING DIMENSIONS MODEL CODE



Model	HP (kW)	d1	A	B1	B2	C	E	F	G	H	I	J	K	L	M	N	P	V	X	Y	Z	q	d2	W1	W2	D1	D2	T	n	h
AO-46075	75 (55)	150	1130	360	360	730	150	110	89.1	225	415	333	145	20	580	470	1551	450	400	390	160	M24	75	880	110	279.4	241.3	25.4	8	23
AO-46060	60 (45)	150	1130	360	360	730	150	110	89.1	225	415	333	145	20	580	470	1511	450	400	390	160	M24	75	840	110	279.4	241.3	25.4	8	23
AO-46050	50 (37)	150	1130	360	360	730	150	110	89.1	225	415	333	145	20	580	470	1712	450	400	390	160	M24	75	970	110	279.4	241.3	25.4	8	23
BC-46120	120 (90)	150	1150	380	380	730	150	110	89.1	225	415	333	145	30	580	470	1712	450	400	390	160	M24	75	1230	110	279.4	241.3	25.4	8	23
BC-46100	100 (75)	150	1130	360	360	730	150	110	89.1	225	415	333	145	20	580	470	1631	450	400	390	160	M24	75	970	110	279.4	241.3	25.4	8	23
CC-46145	145 (110)	150	1220	400	380	780	150	110	89.1	225	415	333	145	30	580	470	1802	450	400	390	160	M24	75	1350	110	279.4	241.3	25.4	8	23
EO-66145	145 (110)	250	1410	490	390	905	215	110	89.1	290	580	448	210	30	630	550	1922	450	450	470	160	M24	75	1510	170	406.4	362	30.3	12	26
EO-66120	120 (90)	250	1410	490	390	905	215	110	89.1	290	580	448	210	30	630	550	2002	450	450	470	160	M24	75	1600	170	406.4	362	30.3	12	26
EO-66100	100 (75)	250	1410	490	390	905	215	110	89.1	290	580	448	210	30	630	550	1872	450	450	470	160	M24	75	1500	170	406.4	362	30.3	12	26
FO-66060	60 (45)	300	1350	450	350	875	260	110	89.1	330	660	503	250	20	680	570	1686	450	500	490	160	M24	75	1150	230	482.6	431.8	31.8	12	26
FO-66050	50 (37)	300	1350	450	350	875	260	110	89.1	330	660	503	250	20	680	570	1646	450	500	490	160	M24	75	1020	230	482.6	431.8	31.8	12	26
GO-66075	75 (55)	300	1390	470	380	890	260	110	89.1	330	660	503	250	20	680	570	1646	450	500	490	160	M24	75	1020	230	482.6	431.8	31.8	12	26

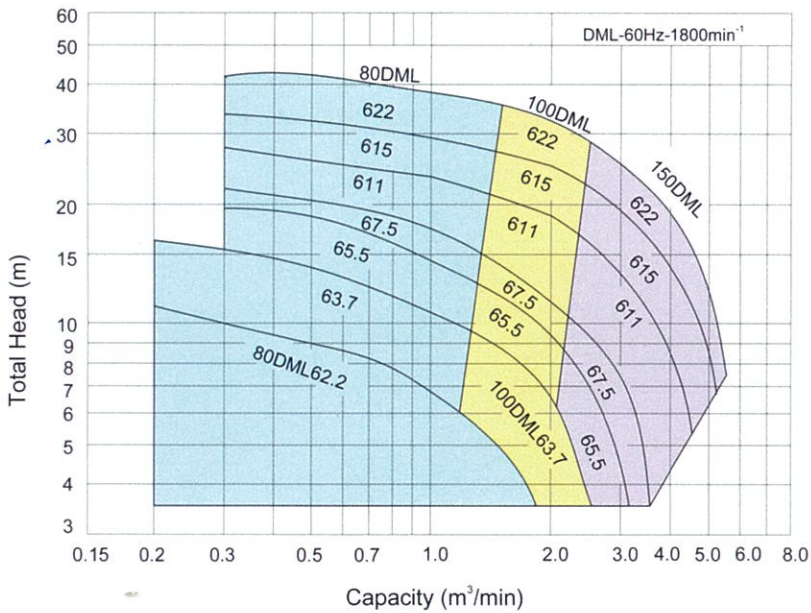
Model DML

SPECIFICATIONS

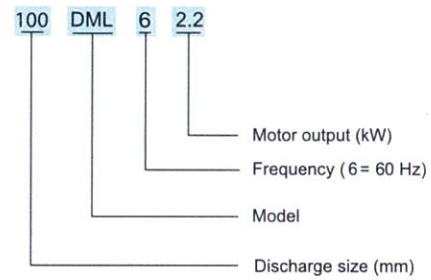


Pump			
Liquid Handled	Type of liquid	Sewage, Wastewater	
	Temperature	0-40°C	
	Max solids size	76mm	
Maximum Submergence		8m	
Minimum Submergence		Refer to water level (L.W.L) in Dimensions. It is possible to operate at low water level for 30min.	
Synchronous Speed		1800min ⁻¹	
Construction	Mechanical Seal	Double mechanical seal	
	Impeller	Single channel, non-clog	
	Bearing	Prelubricated bearing	
Material	Casing	Cast iron	
	Impeller	Cast iron	
	Shaft	403 Stainless Steel	
	Mechanical Seal	Impeller side Motor side	Silicon carbide Ceramic / Carbon
	Packing		NBR
Motor			
Type	4 pole, air-filled watertight		
Insulation	Class E or Class F		
Protection	Built in overload protector (2.2KW); Build-in temperature detector protection (3.7-22KW)		
Accessories			
Standard	Submersible cable (10m)		
Option	Quick discharge connector, Dry pit type.		

PERFORMANCE CHART

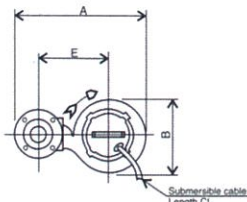
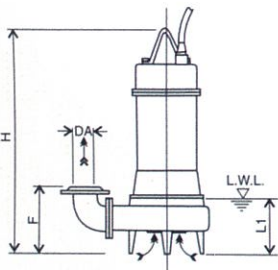


MODEL CODE



DIMENSIONS

Manual type



- Note:
- L.W.L (Low Water Level) is limited to 10 minutes operation at low water level.
 - Is limited to 30 minutes operation with water level below top of motor.

Unit: mm

Size d	Model	Output kW	Pump and Motor					L.W.L L	Mass kg
			A	B	E	F	H		
80	80DML62.2	2.2	512	295	275	296	666	277	75
	80DML63.7	3.7	512	295	275	296	725	277	82
	80DML65.5	5.5	587	325	335	311	805	292	104
	80DML67.5	7.5	587	325	335	311	805	292	109
	80DML611	11	656	393	370	332	929	320	152
	80DML615	15	656	393	370	332	929	320	158
100	80DML622	22	734	455	420	350	1008	329	209
	100DML63.7	3.7	554	295	305	311	725	277	84
	100DML65.5	5.5	599	325	335	311	805	292	107
	100DML67.5	7.5	599	325	335	311	805	292	111
	100DML611	11	669	393	370	332	929	320	154
	100DML615	15	669	393	370	332	929	320	160
150	100DML622	22	746	455	420	350	1008	329	211
	150DML65.5	5.5	659	325	360	346	805	292	113
	150DML67.5	7.5	659	325	360	346	805	292	118
	150DML611	11	729	393	395	367	929	320	161
	150DML615	15	729	393	395	367	929	320	167
	150DML622	22	806	455	445	385	1008	329	218

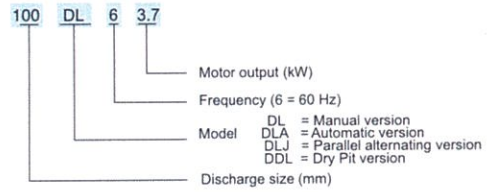
Model DL

SPECIFICATIONS

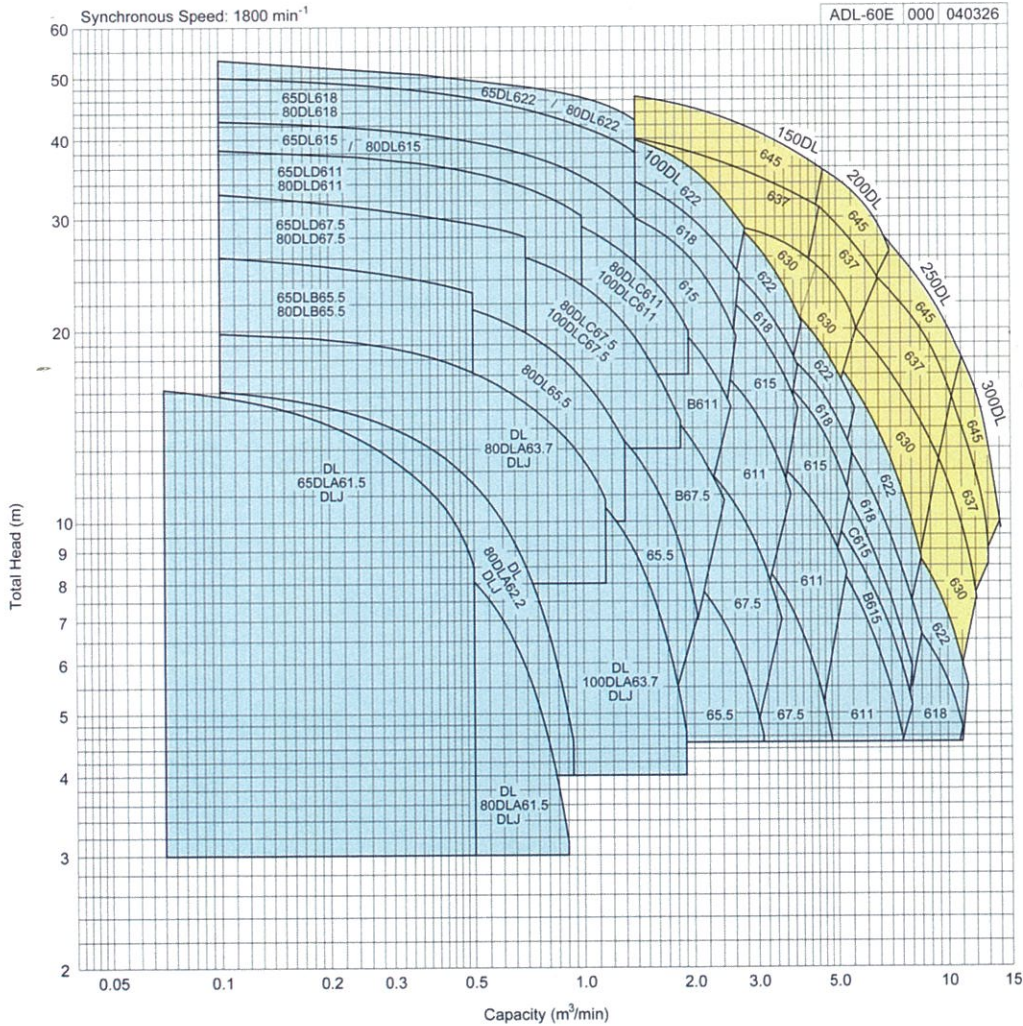


		Standard	Option
Scope	Discharge	65 - 300mm	
	Motor Power	1.5 - 45KW (3 phase)	
	Performance	Capacity : 0.07 - 14m ³ /min Head : 3 - 52m	
Liquid	Type	Sewage	
	Maximum Temperature	40°C (Manual and A Type)	
	Submergence	32°C (J' Type)	
Construction	Impeller	Non-clog type	
	Mechanical Seal	Oil lubricated, double mechanical seal (single spring 3.7KW) (tandem spring 5.5 - 45KW)	
	Shaft	Cast iron	S/S Upon request
Materials	Suction Cover	Cast iron	
	Shaft	403 Stainless Steel (30-45KW:410 Stainless Steel)	
	Motor Frame	Cast iron	
	Fasteners	304 Stainless Steel	
	Mechanical Seal	Upper Faces : Carbon / Ceramic Lower Faces : Silicon Carbide / Silicon Carbide	
	Lubricating Oil	Turbine Oil VG32 (SAE 10W/20W)	
Motor	Type	Air filled dry submersible, IP68, Class E or Class F insulation	
	Synchronous Speed	4 pole 1800min ⁻¹	
	Applicable Voltages	380/400/460/480 volts 3 phase 60Hz	
	Starting	DOL (up to 7.5KW) Star-Delta (11 - 45KW)	
	Protection	In built overload protection (up to 7.5KW) Miniature thermal protector (11 - 45KW) Leakage detector (30-45KW)	Leakage detector upon request (up to 22KW)
	Bearings	Pre lubricated sealed ball bearings	
Cable	Length	10m	
Accessories	Flange	Discharge elbow	Ring Base Stand (30-45KW) Quick Discharge connector (QDC)
	Others		

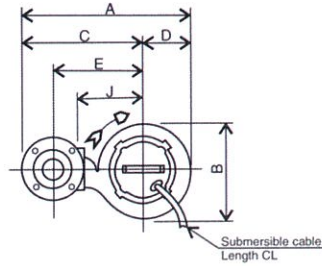
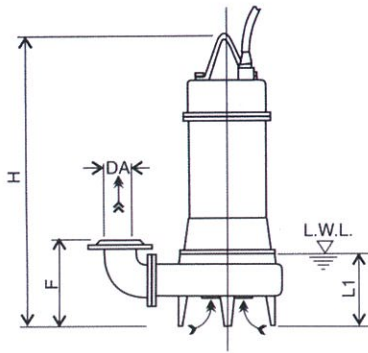
MODEL CODE



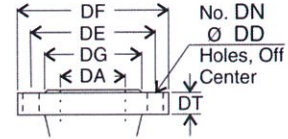
PERFORMANCE CHART



Dimensions - DL (MANUAL WET PIT MODEL)



- Note:
- 1/. L.W.L. (Low Water Level) is limited to 10 minutes operation at low water level.
 - 2/. Is limited to 30 minutes operation with water level below top of motor.



Discharge Flange Dimensions (JIS 10kgf/cm²)

(30-45kW ANSI Flange)

DA	DE	DF	DG	DT	DN	DD	DA	DE	DF	DG	DT	DN	DD
65	140	175	116	18	4	15	150	241	279	-	26	8	22.2
80	150	185	126	18	8	15	200	299	343	-	28.6	8	22.2
100	175	210	151	20	8	15	250	362	406	-	30.2	12	25.4
150	240	280	212	26	8	19	300	432	483	-	32	12	25.4
200	290	330	262	24	12	23							
250	355	400	324	30.2	12	25							
300	400	445	368	32	16	25							

Size DA	Model	Output kW	Pump and motor									CL m	Weight kg
			A	B	C	D	E	F	H	J	L1		
65	65 DL 61.5	1.5	462	258	333	129	245	200	576	180	140	10	48
	65 DLB 65.5	5.5	573	339	403	170	315	215	765	250	260	10	115
	65 DLD 67.5	7.5	573	339	403	170	315	215	765	250	260	10	118
	65 DLD 611	11	640	414	433	207	345	215	864	280	260	10	165
	65 DL 615	15	654	441	433	221	345	215	948	280	280	10	190
	65 DL 618	18.5	654	441	433	221	345	215	932	280	280	10	211
80	65 DL 622	22	696	486	453	243	365	215	932	300	280	10	237
	80 DL 61.5	1.5	524	292	378	146	285	220	597	210	165	10	55
	80 DL 62.2	2.2	524	292	378	146	285	220	655	210	165	10	65
	80 DL 63.7	3.7	542	308	388	154	295	220	687	220	165	10	73
	80 DLB 65.5	5.5	588	339	418	170	325	220	765	250	260	10	117
	80 DL 65.5	5.5	567	328	403	164	310	220	767	235	165	10	118
	80 DLD 67.5	7.5	588	339	418	170	325	220	765	250	260	10	120
	80 DLC 67.5	7.5	618	379	428	190	335	307	753	260	205	10	146
	80 DLD 611	11	655	414	448	207	355	220	864	280	260	10	167
	80 DLC 611	11	648	399	448	200	355	305	850	280	205	10	183
100	80 DL 615	15	669	441	448	221	355	220	948	280	280	10	192
	80 DL 618	18.5	669	441	448	221	355	220	932	280	280	10	213
	80 DL 622	22	711	486	468	243	375	220	932	300	280	10	239
	100 DL 63.7	3.7	614	335	445	169	340	250	706	235	185	10	79
	100 DL 65.5	5.5	614	335	445	169	340	250	791	235	185	10	121
	100 DLC 67.5	7.5	660	379	470	190	365	322	753	260	205	10	146
	100 DLB 67.5	7.5	646	369	460	186	355	323	768	250	205	10	132
	100 DLC 611	11	690	399	490	200	385	320	850	280	205	10	183
	100 DLB 611	11	673	385	480	193	375	323	859	270	205	10	179
	100 DL 615	15	673	385	480	193	375	323	948	270	205	10	208
150	100 DL 618	18.5	701	402	500	201	395	323	951	290	205	10	245
	100 DL 622	22	701	402	500	201	395	323	951	290	205	10	268
	150 DL 65.5	5.5	750	398	550	200	410	381	799	280	245	10	143
	150 DL 67.5	7.5	750	398	550	200	410	381	799	280	245	10	155
	150 DL 611	11	750	398	550	200	410	381	898	280	245	10	182
	150 DL 615	15	780	418	570	210	430	377	972	300	245	10	225
	150 DL 618	18.5	810	438	590	220	450	377	975	320	245	10	262
	150 DL 622	22	810	438	590	220	450	377	975	320	245	10	287
	150 DL 630 - C	30	907	509	650	257	510	476	1270	360	1066	10	345
	150 DL 637 - C	37	907	509	650	257	510	476	1438	360	1169	10	413
200	150 DL 645 - C	45	907	509	650	257	510	476	1438	360	1169	10	442
	200 DL 67.5	7.5	832	430	615	217	450	414	826	300	285	10	170
	200 DL 611	11	832	430	615	217	450	414	925	300	285	10	215
	200 DL 615	15	863	453	635	228	470	410	997	320	285	10	240
	200 DL 618	18.5	863	453	635	228	470	410	1000	320	285	10	278
	200 DL 622	22	896	479	655	241	490	411	998	340	285	10	310
	200 DL 630 - C	30	932	509	675	257	510	491	1270	360	1066	10	345
	200 DL 637 - C	37	932	509	675	257	510	491	1438	360	1169	10	413
	200 DL 645 - C	45	932	509	675	257	510	491	1438	360	1169	10	442
	250	250 DL 611	11	969	525	700	269	500	622	1003	370	400	10
250 DLB 615		15	969	525	700	269	500	622	1084	370	400	10	330
250 DLC 615		15	993	541	720	273	520	634	1089	390	400	10	350
250 DL 618		18.5	993	541	720	273	520	634	1092	390	400	10	390
250 DL 622		22	993	541	720	273	520	634	1092	390	400	10	420
250 DL 630 - C		30	1114	641	790	324	590	736	1371	460	1167	10	470
250 DL 637 - C		37	1114	641	790	324	590	736	1534	460	1265	10	536
300	250 DL 645 - C	45	1114	641	790	324	590	736	1534	460	1265	10	551
	300 DL 618	18.5	1100	588	798	302	575	671	1134	420	450	10	430
	300 DL 622	22	1100	588	798	302	575	671	1134	420	450	10	455
	300 DL 630 - C	30	1161	641	838	324	615	756	1371	460	1167	10	470
	300 DL 637 - C	37	1161	641	838	324	615	756	1534	460	1265	10	536
300 DL 645 - C	45	1161	641	838	324	615	756	1534	460	1265	10	551	

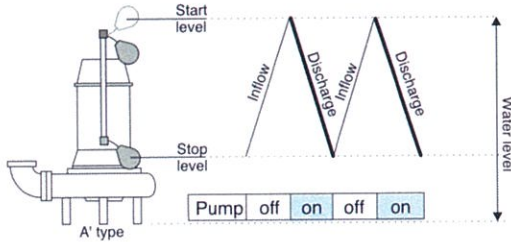
Units: mm unless otherwise specified

AUTOMATIC OPERATION (A' & J' TYPE)

All models up to 3.7kW are available as automatic (A' type) or parallel alternating (J' type) pumps with inbuilt control devices and float switches. There is no need for an external control panel, and operation can begin as soon as the pumps are installed and connected to a power source.

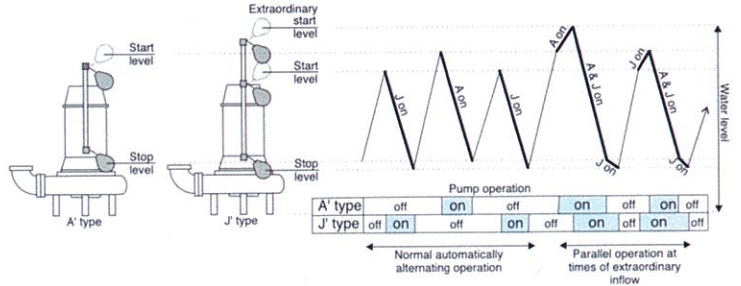
SINGLE PUMP INSTALLATION (A' TYPE)

A single automatic (A' type) pump is installed in the sump. The pump automatically start when the water level in the sump reaches the "start level", and stop when the pump has lowered the water level to the "stop level".



DUPLEX PUMP INSTALLATION (A' & J' TYPE)

Two pumps, one A' type and one J' type are installed in the sump. In normal operating conditions, operation alternates between the two pumps. In times of extraordinary inflow (inflow is greater than the capacity of a single pump), then the two pumps will operate together in parallel operation.



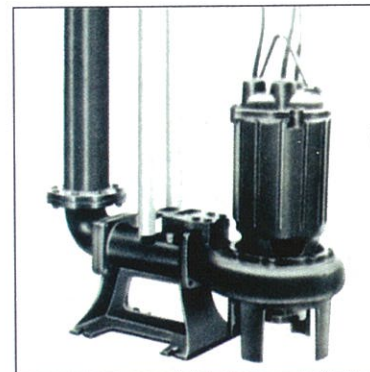
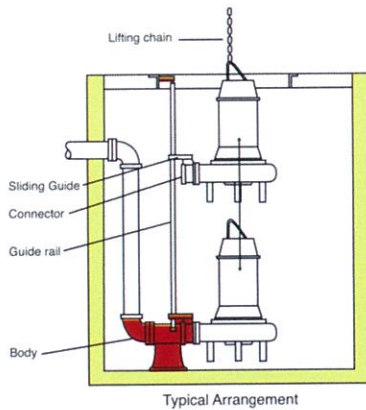
FLOAT SWITCH

FLOAT SWITCH	
Model	EF-4
Temperature	0~50°C
Function of contact	Up = ON Down = OFF
Voltage	AC 24V DC 24 V
Max Current	AC 0.5A DC 0.5A
Contact Capacity	AC 12VA DC 12VA
Lead Wire	2x0.2mm ² x6m



QUICK DISCHARGE CONNECTION (QDC)

An optional quick discharge connector is available to suit all Ebara D'Series submersible pumps, allowing easy removal and replacement of the pumps for maintenance purposes without having to enter the sump.



EBARA Pump with QDC - Typical Arrangement

Note: All specifications subject to change without prior notice.



EBARA CORPORATION

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