



**EBARA**

CF3208UH

# SUBMERSIBLE SEWAGE PUMPS

Model **DL • DLY**

**PT. LUKES INDONESIA**

Lindeteves Trade Center Lt UG, Blok B1 No. 6  
Jalan Hayam Wuruk, Jakarta - Indonesia  
Phone : 021 - 6231 7842, 628 5144  
Fax : 021 - 6231 0499  
email : lukes@cbn.net.id



## APPLICATIONS

- Sewage
- Kitchen drains
- Industrial water drainage

## FEATURES

1. Unique impeller design prevents overload under severe operating conditions. Semi-open Non-clog (except for Model DLY) and enclosed Non-clog (Model DLY) impellers prevent pump clog by foreign matter.
2. The protective device built into the motor prevents the motor from burning out as a result of overcurrent or abnormal temperature rise of the coil. (Refer to the last page of this catalog for details.)
3. Optional quick discharge connecter facilitates installation and maintenance.

## ACCESSORIES

- Submersible cable (10m)
- Companion flange (1 set)

## STANDARD SPECIFICATIONS

Treated liquid: Sewage and wastewater

Liquid temperatures:

Model DL·DLY	0.4 ~ 7.5 kW	0 ~ 50°C
DLA	11 ~ 45kW	0 ~ 40°C
Model DLJ	0.4 ~ 3.7 kW	0 ~ 32°C

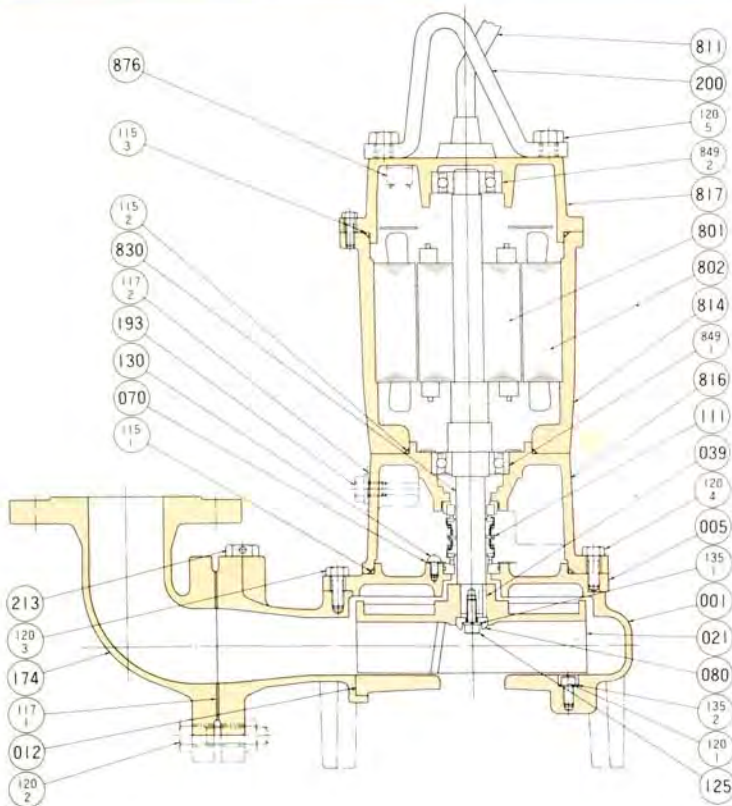
Structure	Impeller	Semi-open, Non-clog...except for Model DLY
		Enclosed, Non-clog...Model DLY
	Shaft seal	Double mechanical seal
Flange	Rating	JIS B2210: JIS10K thin type
Materials	Casing	Cast iron
	Impeller	Cast iron
	Shaft	403 stainless Steel
Motor	Type	Air filled watertight
	Ins. class	F
	Protection	Built-in overload protection (up to 7.5kW) Built-in temperature detector protection (11 to 45kW)

Number poles 4-pole

Maximum spherical solids

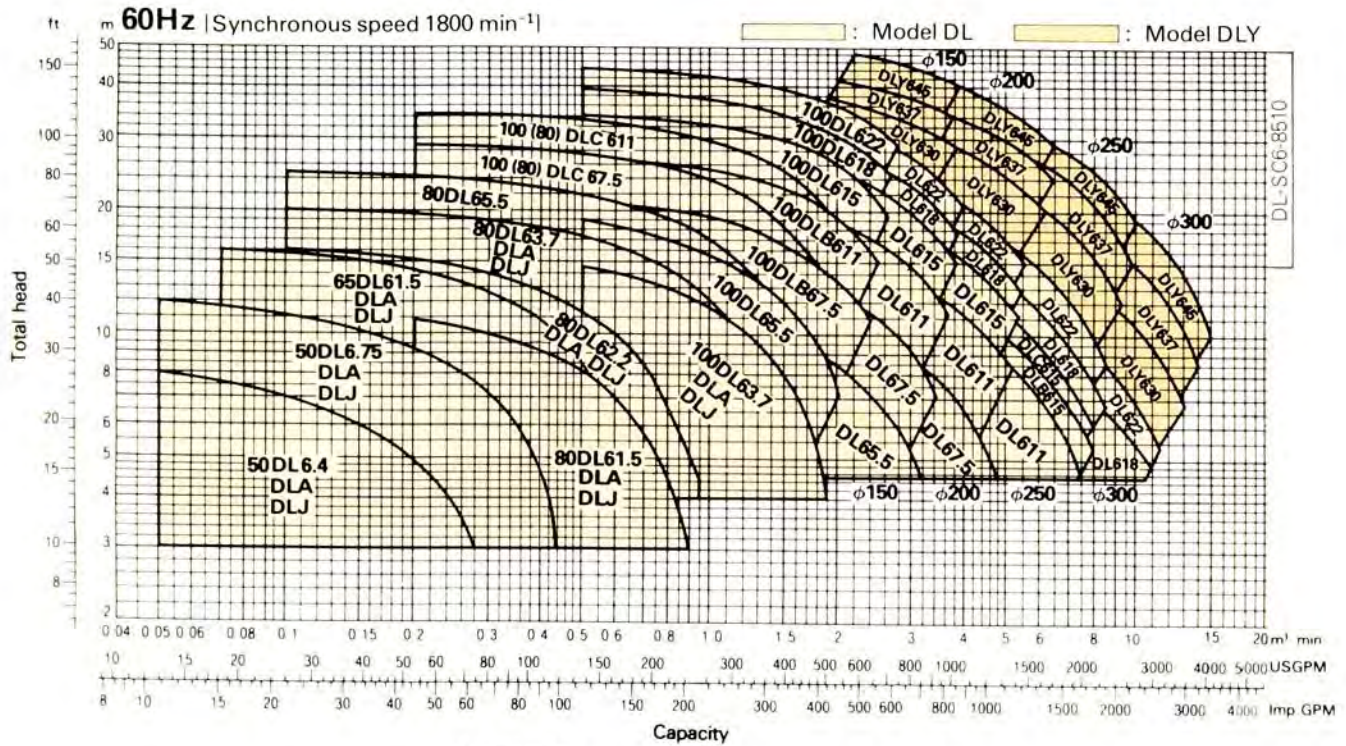
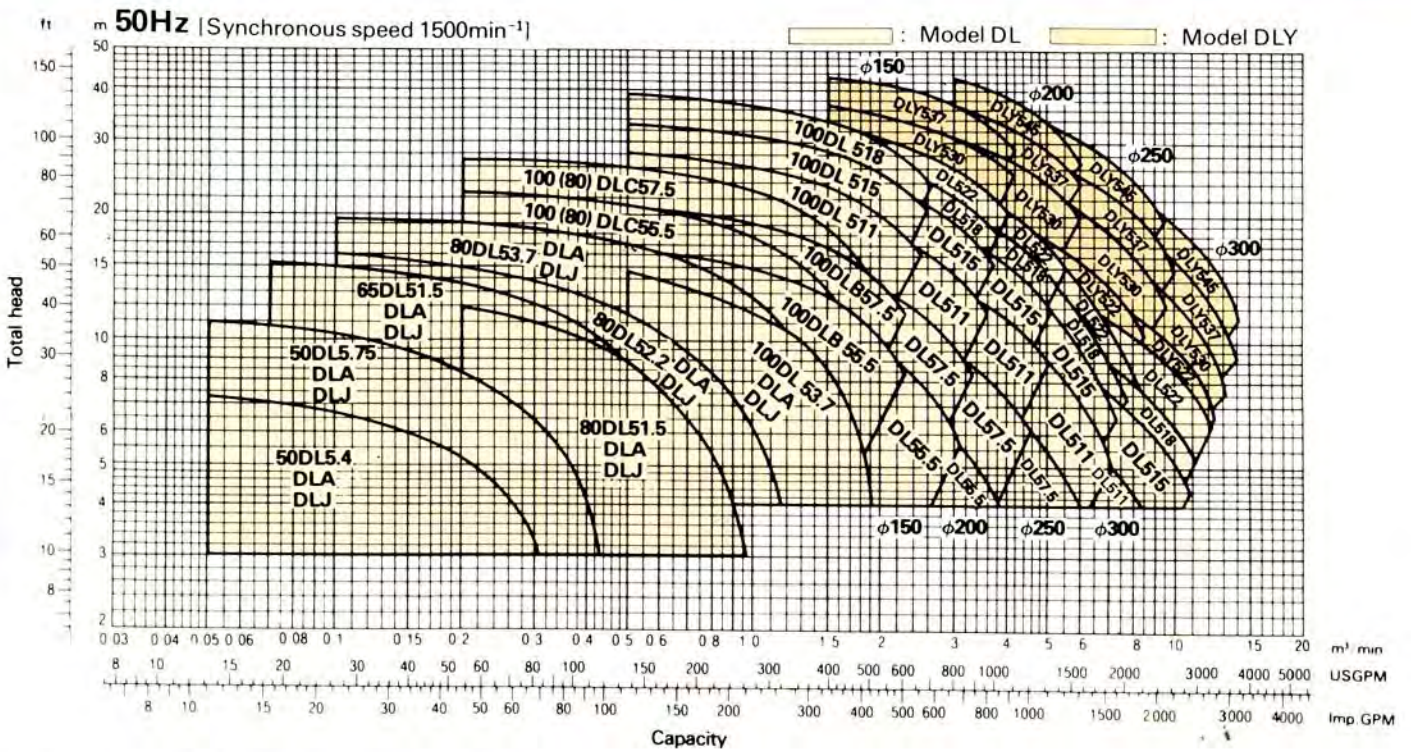
Model	Solid dia mm	Model	Solid dia mm	Model	Solid dia mm
50DL	35	100DLB	60	150 ~ 250DLY	75
65DL	40	150DL	70	300 DLY	
80DL	50	200DL	75	522. 530	90
100DLC	50	250DL	82	537. 545	80
100DL	60	300DL	90	622 ~ 645	75

## SECTIONAL VIEW



PART NO.	PART NAME	PART NO.	PART NAME
001	CASING	125	BOLT
005	INTERMEDIATE CASING	130	SCREW
012	SUCTION COVER	135-1	WASHER
021	IMPELLER	135-2	WASHER
039	KEY	174	DISCHARGE ELBOW
070	PLATE	193	OIL PLUG
080	BUSHING	200	LIFTING HANGER
111	MECHANICAL SEAL	213	AIR VENT VALVE
115-1	"O" RING	801	ROTOR
115-2	"O" RING	802	STATOR
115-3	"O" RING	811	SUBMERSIBLE CABLE
117-1	GASKET	814	MOTOR FRAME
117-2	GASKET	816	BRACKET
120-1	BOLT	817	BRACKET
120-2	BOLT	830	SHAFT
120-3	BOLT	849-1	BALL BEARING
120-4	BOLT	849-2	BALL BEARING
120-5	BOLT	876	THERMAL PROTECTOR

# SELECTION CHARTS



## Symbols

80 DL A 5 2.2

- 80 — Motor output kW
- DL — Frequency: 50Hz 5, 60Hz 6
- A — Model
- 5 — Size mm
- 2.2 — Any one indicated as 100 (80) can be used in either 100 mm or 80 mm.

- [Model]
- DL, DLY : Manual type
- DLA: Automatic type
- DLJ: Automatic alternating type

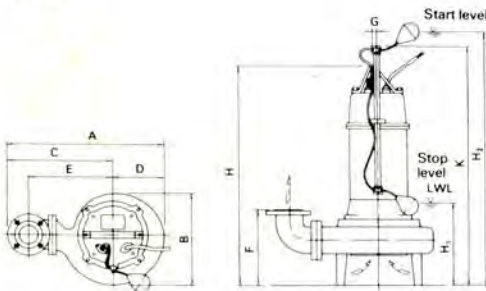
# AUTOMATIC TYPE



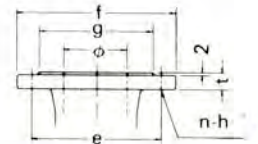
## Features

- Automatic operation without use of control panel.
- Since a control panel is unnecessary, operation can begin as soon as the pumps are installed and connected to a power source.
- A highly reliable float switch, impervious to sewage and impurities, used for water surface level detection, prevents dry operation.

## Dimensions



## Flange



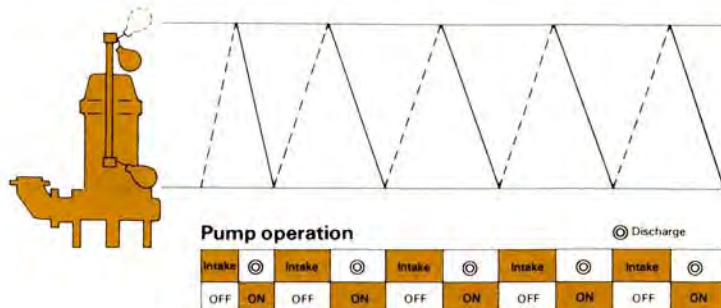
Unit: mm

φ	e	f	g	t	n	h
50	120	155	100	18	4	15
65	140	175	120	18	4	15
80	150	185	130	18	8	15
100	175	210	155	20	8	15

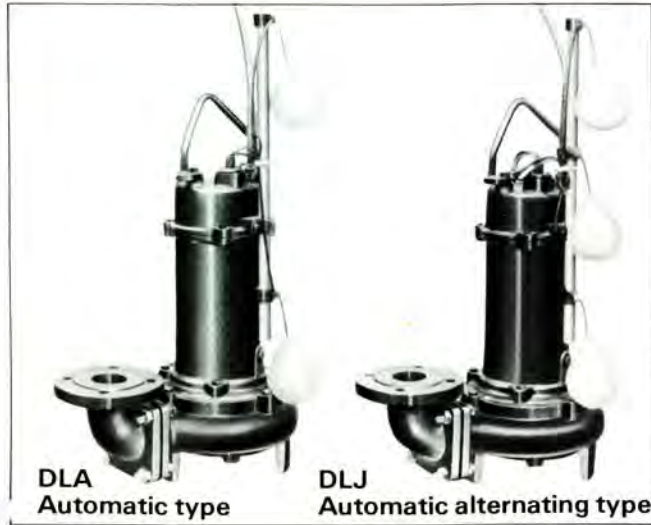
Unit: mm

Frequency Hz	Size φ	Model	Output kW	Pump and motor											Weight (Mass) kg
				A	B	C	D	E	F	G	H <sub>1</sub>	H <sub>2</sub>	H	K	
50	50	50DLA5.4	0.4	393	222	283	110	205	175	25	250	650	555	630	32.5
		50DLA5.75	0.75	411	239	293	118	215	175	25	250	650	555	630	35.5
	65	65DLA51.5	1.5	497	291	353	144	265	200	20	320	860	724	840	55
		80DLA51.5	1.5	524	292	378	146	285	220	20	320	860	745	840	58
	80	80DLA52.2	2.2	542	308	388	154	295	220	20	320	860	805	840	70
		80DLA53.7	3.7	567	328	403	164	310	220	20	320	860	805	840	78
100	100DLA53.7	3.7	614	335	445	169	340	250	20	370	910	856	890	85	
60	50	50DLA6.4	0.4	373	208	273	100	195	175	25	250	650	557	630	31.5
		50DLA6.75	0.75	393	222	283	110	205	175	25	250	650	550	630	34.5
	65	65DLA61.5	1.5	462	258	333	129	245	200	20	320	860	724	840	51
		80DLA61.5	1.5	519	282	378	141	285	220	20	320	860	745	840	58
	80	80DLA62.2	2.2	524	292	378	146	285	220	20	320	860	806	840	68
		80DLA63.7	3.7	542	308	388	154	295	220	20	320	860	805	840	76
100	100DLA63.7	3.7	614	335	445	169	340	250	20	370	910	856	890	85	

## Automatic Operation



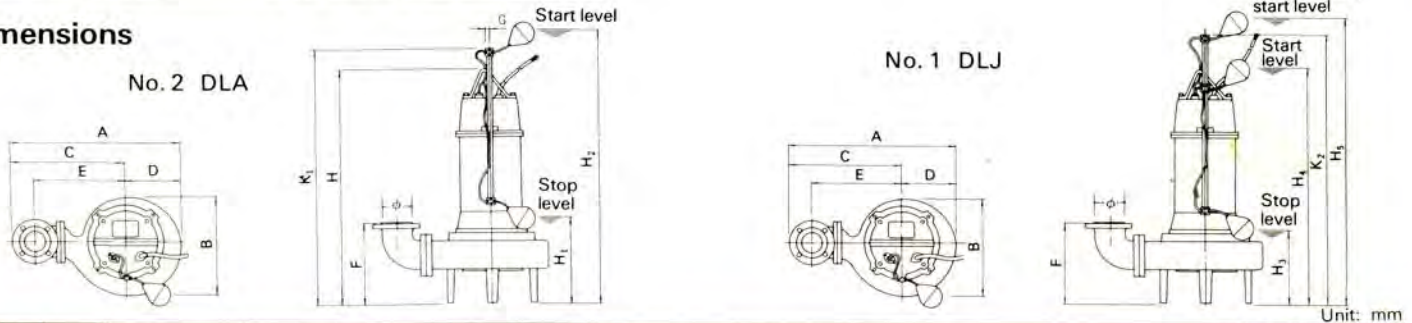
# PARALLEL ALTERNATE DEVICE TYPE (Built-in Operating Apparatus)



## Features

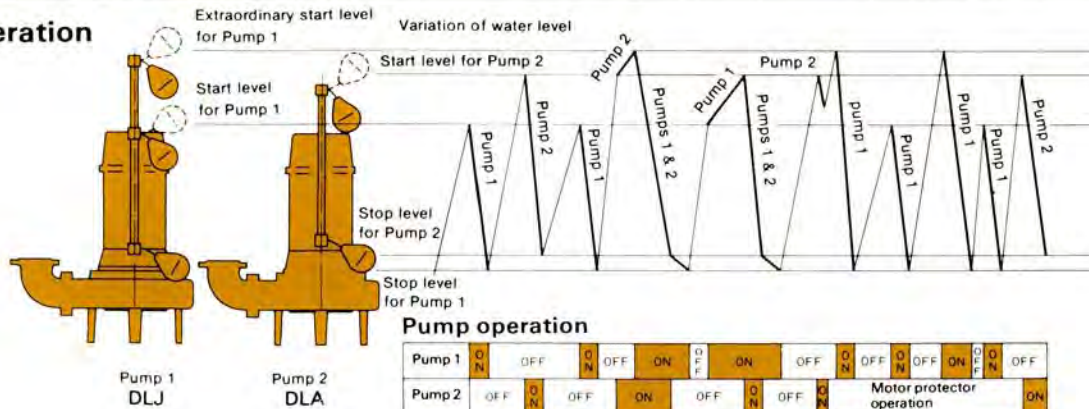
- Automatic, automatic alternating and parallel operation without use of control panel.
- Since a control panel is unnecessary, operation can begin as soon as the pumps are installed and connected to a power source.
- Pumps will automatically begin parallel operation with abnormal increase in water volume to prevent flooding.
- If, for some reason, one of the pumps should break down, the other pump will continue to operate on its own.
- A highly reliable float switch, impervious to sewage and impurities, used for water surface level detection, prevents dry operation.

## Dimensions



Frequency Hz	Size $\phi$	Model	Output kW	Pump and motor															Weight  Mass  kg	
				A	B	C	D	E	F	G	H	K <sub>1</sub>	H <sub>1</sub>	H <sub>2</sub>	K <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	H <sub>5</sub>	No. 1	No. 2
50	50	50DLJ5.4	0.4	393	222	283	110	205	175	25	555	630	250	650	740	220	570	760	32.5	32.5
		50DLJ5.75	0.75	411	239	293	118	215	175	25	555	630	250	650	740	220	570	760	35.5	35.5
	65	65DLJ51.5	1.5	497	291	353	144	265	200	20	662	840	320	860	950	290	780	970	55	55
		80DLJ51.5	1.5	524	292	378	146	285	220	20	683	840	320	860	950	290	780	970	58	58
	80	80DLJ52.2	2.2	542	308	388	154	295	220	20	728	840	320	860	950	290	780	970	70	70
		80DLJ53.7	3.7	567	328	403	164	310	220	20	761	840	320	860	950	290	780	970	78	78
100	100DLJ53.7	3.7	614	335	445	169	340	250	20	779	890	370	910	1000	340	830	1020	85	85	
60	50	50DLJ6.4	0.4	373	208	273	110	195	175	25	557	630	250	650	740	220	570	760	31.5	31.5
		50DLJ6.75	0.75	393	222	283	110	205	175	25	550	630	250	650	740	220	570	760	34.5	34.5
	65	65DLJ61.5	1.5	462	258	333	129	245	200	20	662	840	320	860	950	290	780	970	51	51
		80DLJ61.5	1.5	519	282	378	141	285	220	20	683	840	320	860	950	290	780	970	58	58
	80	80DLJ62.2	2.2	524	292	378	146	285	220	20	729	840	320	860	950	290	780	970	68	68
		80DLJ63.7	3.7	542	308	388	154	295	220	20	761	840	320	860	950	290	780	970	76	76
100	100DLJ63.7	3.7	614	335	445	169	340	250	20	779	890	370	910	1000	340	830	1020	85	85	

## Operation



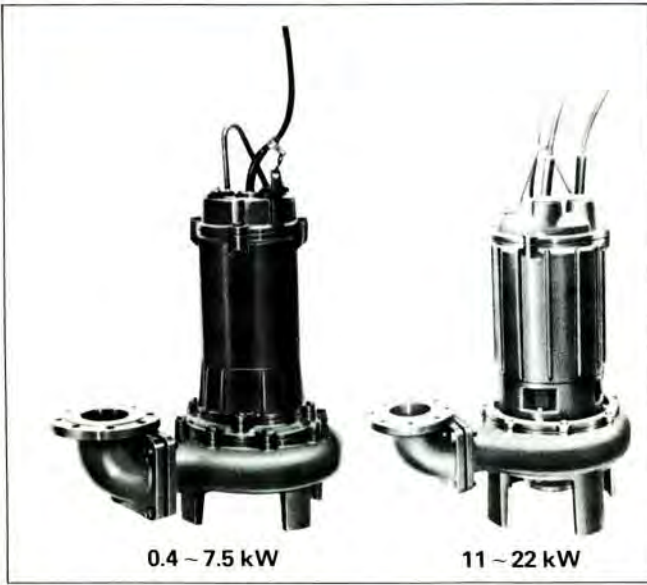
### Pump operation

Pump 1	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Pump 2	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON

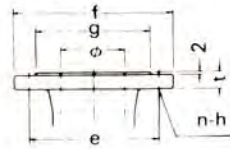
Normal automatic alternating operation      Parallel operation at time of extraordinary flooding      Pump 2 motor protector operation  
Pump 1 independent operation

# MANUAL TYPE

## Dimensions



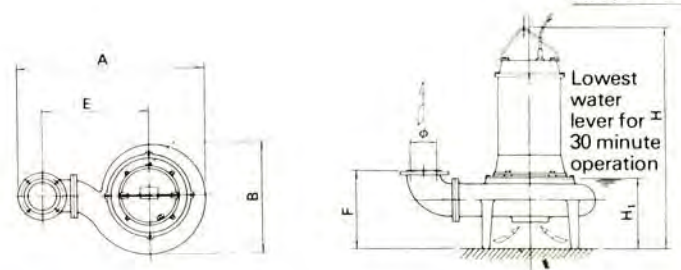
### Flange



Unit: mm

$\phi$	e	f	g	t	n	h
50	120	155	100	18	4	15
65	140	175	120	18	4	15
80	150	185	130	18	8	15
100	175	210	155	20	8	15
150	240	280	215	22	8	19
200	290	330	265	24	12	19
250	355	400	325	30	12	25
300	400	445	370	32	16	25

### Cabletyre cable



## 50Hz

Unit: mm

Size $\phi$	Model	Output kW	Pump and motor						Weight (Mass) kg
			A	B	E	F	H <sub>1</sub>	H	
50	50DL5.4	0.4	393	222	205	175	120	510	31
	50DL5.75	0.75	411	239	215	175	120	510	34
65	65DL51.5	1.5	497	291	265	200	140	576	52
	80DL51.5	1.5	524	292	285	220	165	597	55
80	80DL52.2	2.2	542	308	295	220	165	654	67
	80DL53.7	3.7	567	328	310	220	165	687	80
100 (80)	100(80)DLC55.5	5.5	660 (648)	379	365	322	205	782	134
	100(80)DLC57.5	7.5	690 (678)	399	385	320	205	780	148
100	100DL53.7	3.7	614	335	340	250	185	705	79
	100DLB55.5	5.5	646	370	355	323	205	797	123
	100DLB57.5	7.5	673	385	375	323	205	789	141
	100DL511	11	701	402	395	323	205	858	180
	100DL515	15	741	441	415	330	205	954	230
	100DL518	18.5	741	441	415	330	205	938	285
150	150DL55.5	5.5	750	398	410	381	245	828	146
	150DL57.5	7.5	780	418	430	377	245	813	158
	150DL511	11	810	438	450	377	245	882	199
	150DL515	15	810	438	450	377	245	971	237
	150DL518	18.5	848	476	470	381	245	959	300
	150DL522	22	848	476	470	381	245	959	325
200	200DL55.5	5.5	832	430	450	414	285	855	160
	200DL57.5	7.5	863	453	470	410	285	838	176
	200DL511	11	863	453	470	410	285	907	212
	200DL515	15	896	479	490	411	285	994	260
	200DL518	18.5	932	512	510	415	285	981	305
	200DL522	22	932	512	510	415	285	981	330
250	250DL57.5	7.5	969	525	500	622	400	933	260
	250DL511	11	993	541	520	634	400	999	320
	250DL515	15	1007	549	530	646	400	1085	380
	250DL518	18.5	1007	549	530	646	400	1069	420
	250DL522	22	1007	549	530	646	400	1069	440
300	300DL511	11	1092	588	575	671	450	1049	365
	300DL515	15	1092	588	575	671	450	1130	395
	300DL518	18.5	1127	618	595	668	450	1111	440
	300DL522	22	1127	618	595	668	450	1111	465

## 60Hz

Unit: mm

Size $\phi$	Model	Output kW	Pump and motor						Weight (Mass) kg
			A	B	E	F	H <sub>1</sub>	H	
50	50DL6.4	0.4	373	208	195	175	120	512	30
	50DL6.75	0.75	393	222	205	175	120	510	33
65	65DL61.5	1.5	462	258	245	200	140	576	48
	80DL61.5	1.5	519	282	285	220	165	597	56
80	80DL62.2	2.2	524	292	285	220	165	655	65
	80DL63.7	3.7	542	308	295	220	165	687	73
	80DL65.5	5.5	567	328	310	220	165	797	118
100 (80)	100(80)DLC67.5	7.5	660 (648)	379	365	322	205	782	146
	100(80)DLC611	11	690 (678)	399	385	320	205	849	183
100	100DL63.7	3.7	614	335	340	250	185	705	79
	100DL65.5	5.5	614	335	340	250	185	820	121
	100DLB67.5	7.5	646	369	355	323	205	797	132
	100DLB611	11	673	385	375	323	205	858	179
	100DL615	15	673	385	375	323	205	947	208
	100DL618	18.5	701	402	395	323	205	931	245
150	100DL622	22	701	402	395	323	205	931	268
	150DL65.5	5.5	750	398	410	381	245	828	143
	150DL67.5	7.5	750	398	410	381	245	828	155
	150DL611	11	750	398	410	381	245	897	182
	150DL615	15	780	418	430	377	245	971	225
	150DL618	18.5	810	438	450	377	245	955	262
200	150DL622	22	810	438	450	377	245	955	287
	200DL67.5	7.5	832	430	450	414	285	855	170
	200DL611	11	832	430	450	414	285	924	215
	200DL615	15	863	453	470	410	285	996	240
	200DL618	18.5	863	453	470	410	285	980	278
	200DL622	22	896	479	490	411	285	978	310
250	250DL611	11	969	525	500	622	400	1002	300
	250DLB615	15	969	525	500	622	400	1083	330
	250DLC615	15	1007	541	520	634	400	1088	350
	250DL618	18.5	1007	541	520	634	400	1072	390
	250DL622	22	1007	541	520	634	400	1072	420
300	300DL618	18.5	1092	588	575	671	450	1114	430
	300DL622	22	1092	588	575	671	450	1114	455

# MODEL DL WITH QUICK DISCHARGE CONNECTOR



## Features

1. Pump mounting and demounting can be performed safely and quickly outside the tank.
2. Smaller expense is required for checking and repair, as it is not necessary to empty the tank.
3. The pump can be mounted securely by using a guide rail.

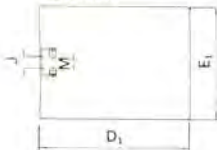
## • Composition of quick discharge connector

With Device		With Pump	
Device proper	1 set	Sliding guide	1 set
Guide pipe fastening hardware	1 set	Pump mounting/demounting flange	1 set
Flange with bolts	1 set	Pump lifting chain	1 set

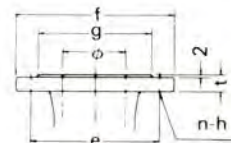
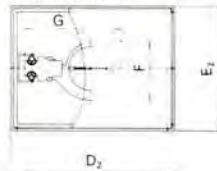
\* Floor frame, floor plate (for 1 - 4 pumps) and guide pipe (white gas pipe or stainless steel pipe) are available as optional accessories.

## Dimensions

Minimum manhole dimensions without floor frame



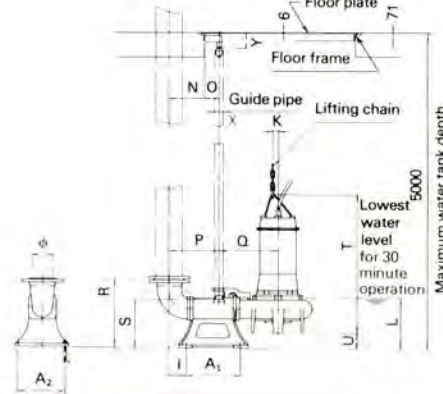
with floor frame



## Flange

Unit: mm

φ	e	f	g	t	n	h
50	120	155	100	18	4	15
65	140	175	120	18	4	15
80	150	185	130	18	8	15
100	175	210	155	20	8	15
150	240	280	215	22	8	19
200	290	330	265	24	12	19
250	355	400	325	30	12	25
300	400	445	370	32	16	25



## Foundation Unit: mm

Model	A <sub>1</sub>	A <sub>2</sub>
50DL	—	100
65DL	—	100
80DL	—	100
100DL	220	180
150DL	370	280
200DL	390	300
250DL	650	500
300DL	680	580

## 50Hz

Size φ	Model	Access hole				Quick discharge connector							Guide pipe				Pump and motor					Lowest water level L	Weight (Mass) kg	
		D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	I	K	N	O	P	R	S	J	M	X	Y	F	G	Q	T	U		Pump	Q.D.C
50	50DL5.4	800	930	700	830	135	25	79	56	135	230	165	60	70	1B	90	222	410	265	510	55	175	31	11
	50DL5.75	800	930	700	830	135	25	79	56	135	230	165	60	70	1B	90	239	428	275	510	55	175	34	11
65	65DL51.5	800	930	700	830	160	20	104	56	160	250	190	60	70	1B	90	291	499	320	576	50	190	52	14
	80DL51.5	800	930	700	830	165	20	109	56	165	285	230	60	70	1B	90	292	516	335	597	65	230	55	17
80	80DL52.2	800	930	700	830	165	20	109	56	165	285	230	60	70	1B	90	308	534	345	654	65	230	67	17
	80DL53.7	800	930	700	830	165	20	109	56	165	285	230	60	70	1B	90	328	559	360	687	65	230	80	17
100	100(80)DLC55.5	800	930	700	830	60	10	140	85	225	365	255	150	160	1 1/2 B	100	379	690	445	782	45	240	134	44
	100(80)DLC57.5	800	930	700	830	60	10	140	85	225	365	255	150	160	1 1/2 B	100	399	720	465	780	45	240	148	44
100	100DL53.7	800	930	700	830	45	25	125	85	210	365	265	150	160	1 1/2 B	100	335	644	420	705	115	240	79	46
	100DLB55.5	800	930	700	830	45	10	125	85	210	365	265	150	160	1 1/2 B	100	369	675	435	797	42	240	123	46
	100DLB57.5	800	930	700	830	45	10	125	85	210	365	265	150	160	1 1/2 B	100	385	703	455	789	42	240	141	46
	100DL511	1000	1130	700	830	45	8	125	85	210	365	265	150	160	1 1/2 B	100	402	730	475	858	42	240	180	46
	100DL515	1000	1130	700	830	45	8	125	85	210	365	265	150	160	1 1/2 B	100	441	770	495	954	35	240	230	46
	100DL518	1000	1130	700	830	45	8	125	85	210	365	265	150	160	1 1/2 B	100	441	770	495	938	35	240	285	46
150	150DL55.5	1000	1130	700	830	120	10	235	90	325	450	362	150	160	2B	100	398	685	435	828	69	290	146	65
	150DL57.5	1000	1130	700	830	120	10	235	90	325	450	362	150	160	2B	100	418	715	455	813	73	290	158	65
	150DL511	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	438	745	475	882	73	290	199	65
	150DL515	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	438	745	475	971	73	290	237	65
	150DL518	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	476	783	495	959	69	290	300	65
	150DL522	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	476	783	495	959	69	290	325	65
200	200DL55.5	1100	1230	800	930	135	10	265	90	355	495	405	150	160	2B	100	430	722	455	855	81	320	160	80
	200DL57.5	1100	1230	800	930	135	10	265	90	355	495	405	150	160	2B	100	453	753	475	838	85	320	176	80
	200DL511	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	453	753	475	907	85	320	212	80
	200DL515	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	479	786	495	994	84	320	260	80
	200DL518	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	512	822	515	981	80	320	305	80
	200DL522	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	512	822	515	981	80	320	330	80
250	250DL57.5	1200	1350	900	1050	0	10	315	120	435	700	440	200	240	3B	100	525	900	565	933	58	450	260	150
	250DL511	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	541	924	585	999	46	450	320	150
	250DL515	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	549	938	595	1085	34	450	380	150
	250DL518	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	549	938	595	1069	34	450	420	150
	250DL522	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	549	938	595	1069	34	450	440	150
	300	300DL511	1200	1350	900	1050	0	8	345	120	465	800	550	200	240	3B	100	588	983	615	1049	109	550	365
300DL515		1200	1350	900	1050	0	8	345	120	465	800	550	200	240	3B	100	588	983	615	1130	109	550	395	200
300DL518		1200	1350	900	1050	0	8	345	120	465	800	550	200	240	3B	100	618	1018	635	1111	112	550	440	200
300DL522		1200	1350	900	1050	0	8	345	120	465	800	550	200	240	3B	100	618	1018	635	1111	112	550	465	200

Unit: mm

# MODEL DL WITH QUICK DISCHARGE CONNECTOR

## Dimensions-continue 60Hz

Unit: mm

Size φ	Model	Access hole				Quick discharge connector								Guide pipe				Pump and motor					Lowest Water level L	Weight (Mass) kg	
		D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	I	K	N	O	P	R	S	J	M	X	Y	F	G	Q	T	U	Pump		Q.D.C	
50	50DL6.4	800	930	700	830	135	25	79	56	135	230	165	60	70	1B	90	208	390	255	512	55	175	30	11	
	50DL6.75	800	930	700	830	135	25	79	56	135	230	165	60	70	1B	90	222	410	265	510	55	175	33	11	
65	65DL61.5	800	930	700	830	160	20	104	56	160	250	190	60	70	1B	90	258	464	300	576	50	190	48	14	
	80DL61.5	800	930	700	830	165	20	109	56	165	285	230	60	70	1B	90	282	511	335	597	65	230	55	17	
80	80DL62.2	800	930	700	830	165	20	109	56	165	285	230	60	70	1B	90	292	516	335	655	65	230	65	17	
	80DL63.7	800	930	700	830	165	20	109	56	165	285	230	60	70	1B	90	308	534	345	687	65	230	73	17	
	80DL65.5	800	930	700	830	165	20	109	56	165	285	230	60	70	1B	90	328	559	360	797	65	230	118	17	
100 (80)	100(80)DLC67.5	800	930	700	830	60 (30)	10	140 (110)	85	225 (195)	365 (350)	255	150	160	1 1/2 B	100	379	690	445	782	45 (40)	240	146	44	
	100(80)DLC611	800	930	700	830	60 (30)	8	140 (110)	85	225 (195)	365 (350)	255	150	160	1 1/2 B	100	399	720	465	849	45 (40)	240	183	44	
100	100DL63.7	800	930	700	830	45	25	125	85	210	365	265	150	160	1 1/2 B	100	335	644	420	705	115	240	79	46	
	100DL65.5	800	930	700	830	45	10	125	85	210	365	265	150	160	1 1/2 B	100	335	644	420	820	115	240	121	46	
	100DLB67.5	800	930	700	830	45	10	125	85	210	365	265	150	160	1 1/2 B	100	369	675	435	797	42	240	132	46	
	100DLB611	800	930	700	830	45	8	125	85	210	365	265	150	160	1 1/2 B	100	385	703	455	858	42	240	179	46	
	100DL615	800	930	700	830	45	8	125	85	210	365	265	150	160	1 1/2 B	100	385	703	455	947	42	240	208	46	
	100DL618	1000	1130	700	830	45	8	125	85	210	365	265	150	160	1 1/2 B	100	402	730	475	931	42	240	245	46	
	100DL622	1000	1130	700	830	45	8	125	85	210	365	265	150	160	1 1/2 B	100	402	730	475	931	42	240	268	46	
150	150DL65.5	1000	1130	700	830	120	10	235	90	325	450	362	150	160	2B	100	398	685	435	828	69	290	143	65	
	150DL67.5	1000	1130	700	830	120	10	235	90	325	450	362	150	160	2B	100	398	685	435	828	69	290	155	65	
	150DL611	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	398	685	435	897	69	290	182	65	
	150DL615	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	418	715	455	971	73	290	225	65	
	150DL618	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	438	745	475	955	73	290	262	65	
	150DL622	1000	1130	700	830	120	8	235	90	325	450	362	150	160	2B	100	438	745	475	955	73	290	287	65	
	200DL67.5	1100	1230	800	930	135	10	265	90	355	495	405	150	160	2B	100	430	722	455	855	81	320	170	80	
200DL611	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	430	722	455	924	81	320	215	80		
200DL615	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	453	753	475	996	85	320	240	80		
200DL618	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	453	753	475	980	85	320	278	80		
200DL622	1100	1230	800	930	135	8	265	90	355	495	405	150	160	2B	100	479	786	495	978	84	320	310	80		
250	250DL611	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	525	900	565	1002	58	450	300	150	
	250DLB615	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	525	900	565	1083	58	450	330	150	
	250DLC615	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	541	924	585	1088	46	450	350	150	
	250DL618	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	541	924	585	1072	46	450	390	150	
	250DL622	1200	1350	900	1050	0	8	315	120	435	700	440	200	240	3B	100	541	924	585	1072	46	450	420	150	
300	300DL618	1200	1350	900	1050	0	8	345	120	465	800	550	200	240	3B	100	588	983	615	1114	109	550	430	200	
	300DL622	1200	1350	900	1050	0	8	345	120	465	800	550	200	240	3B	100	588	983	615	1114	109	550	455	200	

## MOTOR PROTECTION

A built-in protector prevents motor from overheat and burn damage caused by eddy currents, lock and dry operation.

### 0.4 to 7.5 kW motor output

Automatic cut-off circuit cuts the motor winding circuit when motor heats, thereby preventing burning. When temperature decreases, the motor automatically restarts.

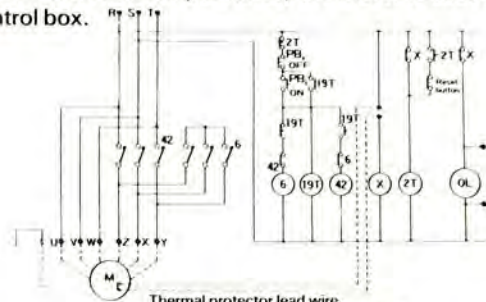
### 11 to 45 kW motor output

Motors up to 45 kW are equipped with sensors that detect motor temperature rise with excessive temperatures, the motor is shut off via a separate control box at ground level. The unit can be restarted manually from the control box.

Temperature Detector	
Model	Klixon 9700K-01-1
Contact points rating	AC230V × 9A
Type contact points	B contact (usually: ON, when detecting: OFF)
Cable marking	S <sub>1</sub> (black), S <sub>2</sub> (white)

CONVERSION OF SI UNIT  
1kgf/cm<sup>2</sup> = 0.0980665 MPa

\* 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.



Thermal protector lead wire.  
\*Automatic circuit, etc. are not included.



EBARA CORPORATION

Head Office Phone: Tokyo 3743-6111  
International Division Phone: Tokyo 3289-6111  
OVERSEAS OFFICES  
America Office Phone: 1-415-571-6494  
Scotland Office Phone: 44-506-460-232  
Beijing Office Phone: 86-1-501-7541  
Bangkok Office Phone: 662-216-4935/4936  
Jakarta Office Phone: 62-21-4205522  
Manila Office Phone: 63-2-816-7524  
Seoul Office Phone: 82-538-7031  
Taipei Office Phone: 886-2-567-1310  
© EBARA CORP 1993, Printed in Japan.

PT. LUKES INDONESIA

Lindetes Trade Center Lt UG, Blok B1 No. 6  
Jalan Hayam Wuruk, Jakarta - Indonesia  
Phone : 021 - 6231 7842, 628 5144  
Fax : 021 - 6231 0499  
email : lukes@cbn.net.id

