

### Features

#### Non-clog single channel impeller

Non-clog single channel impeller has 3" spherical passage and prevents clogging.

#### Robust construction

Large diameter and short overhang shaft, rugged cast iron construction, all fasteners of stainless steel and 4 pole motor drive.

#### Double mechanical seal in oil chamber

An oil lubricated double mechanical seal with lower faces of hard silicon carbide provides strong and reliable shaft sealing

#### High efficiency, Energy saving

Hydraulic well designed single channel impeller gives high efficiency and saves energy

#### Long life

Short overhanged shaft, big bearings and high grade mechanical seal give longer life.

#### In built motor protection

Quick acting dual response overloads provides protection against overload, lock or open phase for model 2.2 kW. Models 3.7 kW and above have miniature thermal protectors.

### Applications

Sewage  
Waste water

# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

## Specifications

50Hz

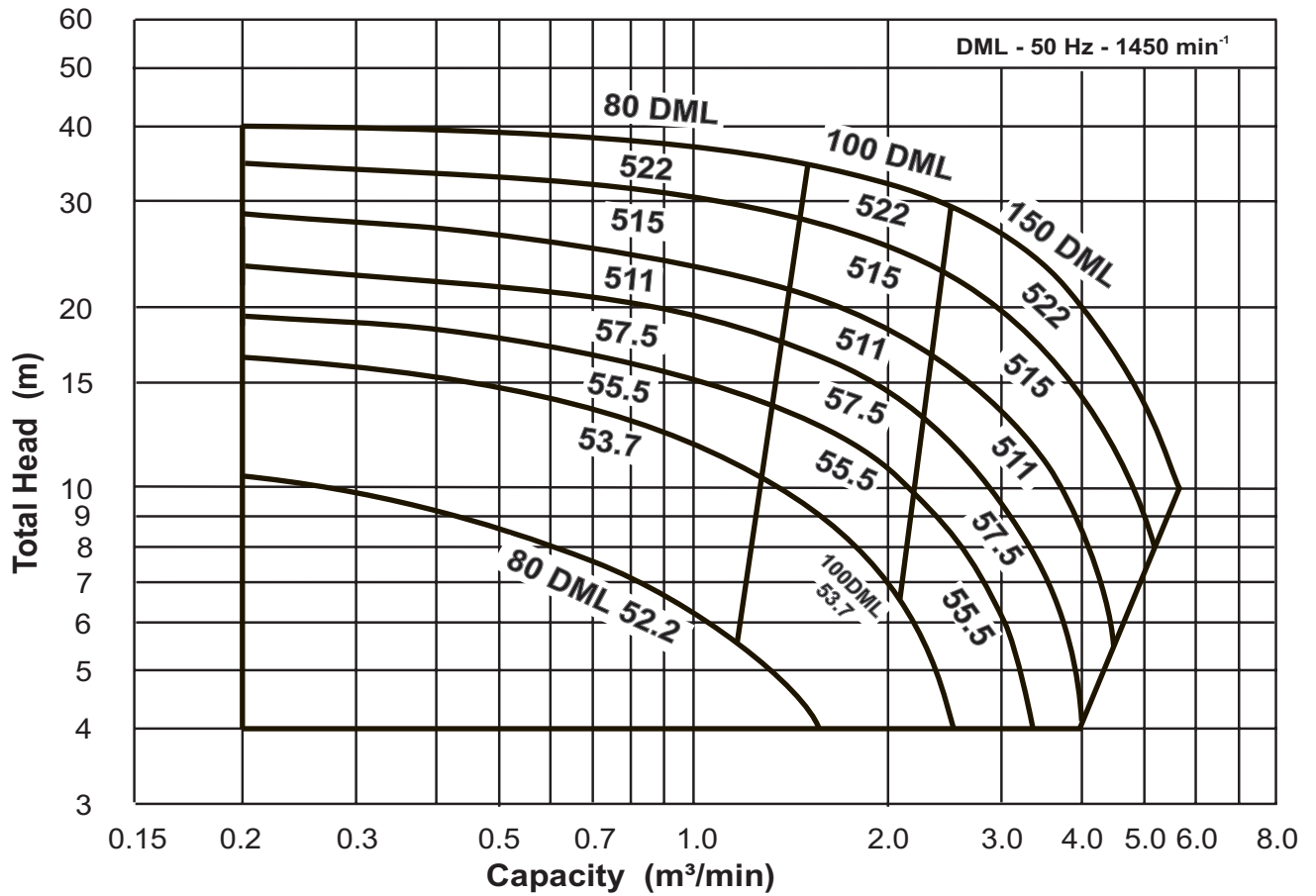
		Standard	Optional
Scope	Discharge	80 – 150 mm	
	Motor Power	2.2 – 22 kW (3phase)	
	Performance	Capacity : 0.2 – 5.4 m <sup>3</sup> /min Head : 4 – 40 m.	
Liquid	Type	Sewage	
	Maximum temperature	40° C	
	Max. solids	refer to table below	
Submergence	Maximum	8 m	
	Minimum	Refer to low water level (L.W.L.) in dimensions.	
Construction	Impeller	Non-clog single channel	
	Mechanical Seal	Oil lubricated, double mechanical seal	
Materials	Casing	Cast Iron	
	Impeller	Cast Iron	
	Suction Cover	Cast Iron	
	Shaft	403 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 (SAE10W/20W)	
Motor	Type	Air filled dry submersible, IP68, Class F insulation	
	Nominal Speed	4 pole 1450 rpm	
	Applicable Voltages	380/400/415 volts 3 phase 50 Hz	
	Starting	DOL (2.2 kW) Star-Delta (3.7 to 22 kW)	
	Protection	In built overload protection (2.2 kW) Miniature thermal protector (3.7 to 22 kW)	
	Bearings	Pre lubricated sealed ball bearings	
Cable	Length	10m	
Accessories	Flange	Discharge elbow with screwed companion flange	
			Quick Discharge Connector (QDC)

Solids Handling			
Model	- discharge	80 Ø	100 Ø
	- motor kW	All	All
Max. Diameter of Solids		76 mm	

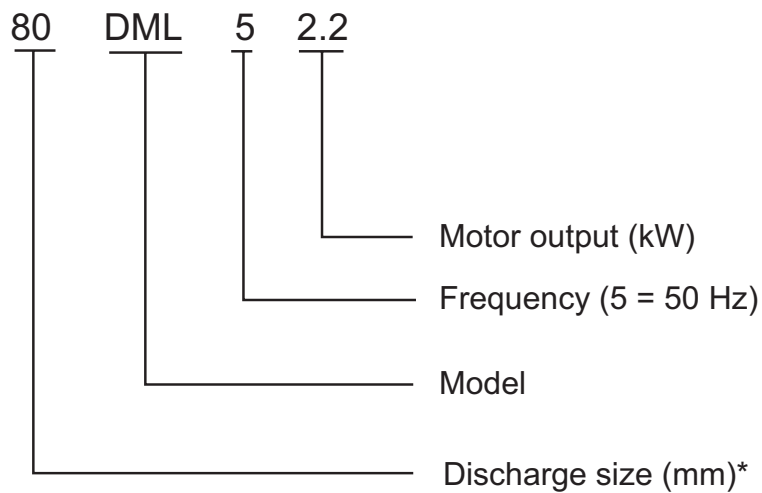
# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

## Performance Chart

50Hz



## Model code

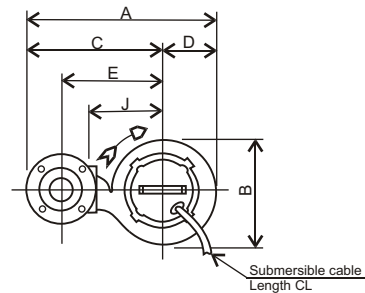
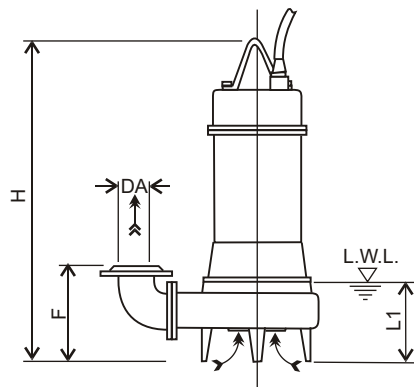


\* Discharge size is changed by pump discharge elbow. Therefore, pump name plate shows "80/100/150" or "80/100" for common model.

# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

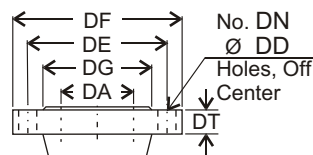
## Dimensions - DML

50Hz



- 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/cm<sup>2</sup>)



DA	DE	DF	DG	DT	DN	DD
80	150	185	126	18	8	15
100	175	210	151	20	8	15
150	240	280	212	22	8	19

Size	Model	Output KW	A	B	C	D	E	F	H	J	L1	CL	Weight
80	80 DML 52.2	2.2	534	320	378	157	285	298	668	210	279	10 m	80 kg
	80 DML 53.7	3.7	534	320	378	157	285	298	727	210	279	10 m	87 kg
	80 DML 55.5	5.5	640	381	453	188	360	334	824	255	310	10 m	118 kg
	80 DML 57.5	7.5	640	381	453	188	360	334	824	255	310	10 m	123 kg
	80 DML 511	11	734	455	513	221	420	350	938	315	329	10 m	157 kg
	80 DML 515	15	734	455	513	221	420	350	938	315	329	10 m	163 kg
	80 DML 522	22	777	497	533	245	440	363	1021	335	332	10 m	223 kg
100	100 DML 53.7	3.7	577	320	420	157	315	313	727	210	279	10 m	89 kg
	100 DML 55.5	5.5	653	381	465	188	360	334	824	255	310	10 m	121 kg
	100 DML 57.5	7.5	653	381	465	188	360	334	824	255	310	10 m	125 kg
	100 DML 511	11	746	455	525	221	420	350	938	315	329	10 m	160 kg
	100 DML 515	15	746	455	525	221	420	350	938	315	329	10 m	166 kg
	100 DML 522	22	790	497	545	245	440	363	1021	335	332	10 m	226 kg
150	150 DML 55.5	5.5	713	381	525	188	385	369	824	255	310	10 m	127 kg
	150 DML 57.5	7.5	713	381	525	188	385	369	824	255	310	10 m	132 kg
	150 DML 511	11	806	455	585	221	445	385	938	315	329	10 m	166 kg
	150 DML 515	15	806	455	585	221	445	385	938	315	329	10 m	172 kg
	150 DML 522	22	850	497	605	245	465	398	1021	335	332	10 m	232 kg

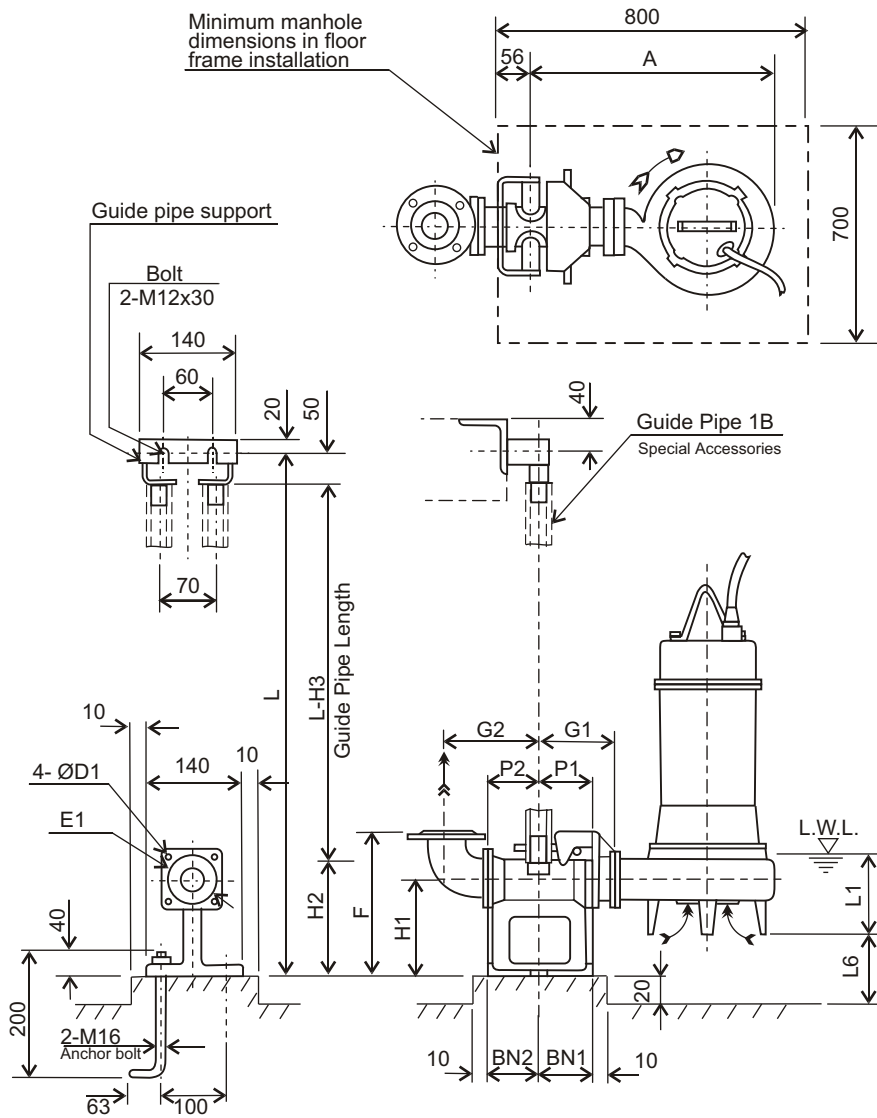
Units: mm unless otherwise specified

# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

## Dimensions with QDC

Pump **DML** QDC **LM**

Applicable Models - 80 DML 52.2, 53.7



Note:

1/. For detailed dimensions of the pumps, refer to separate dimension data sheets.

2/. The discharge bend and companion flange supplied with the pump are used with the QDC.

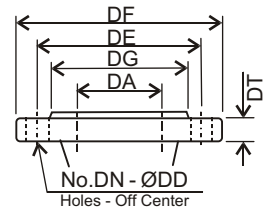
3/. The weight in dimension tables refers only to the weight of the QDC.

4/. Standard accessories supplied with QDC include:-

- Connector body with foundation bolts.
- Guide pipe support
- Sliding Glide
- Adaptor Flange

Guide Pipe is not supplied.

Discharge Flange  
(JIS 10kgf/cm<sup>2</sup>)



DA	DE	DF	DG	DT	DN	DD
80	150	185	126	18	8	15

Pump Model	A	P1	P2	G1	G2	F	H1	H2	H3	L1	L6	BN1	BN2	D1	E1	QDC Model	Weight
80 DML 52.2	492	75	90	125	165	285	175	230	280	279	7	75	90	15	155	LM80	17 kg
80 DML 53.7	492	75	90	125	165	285	175	230	280	279	7	75	90	15	155	LM80	17 kg

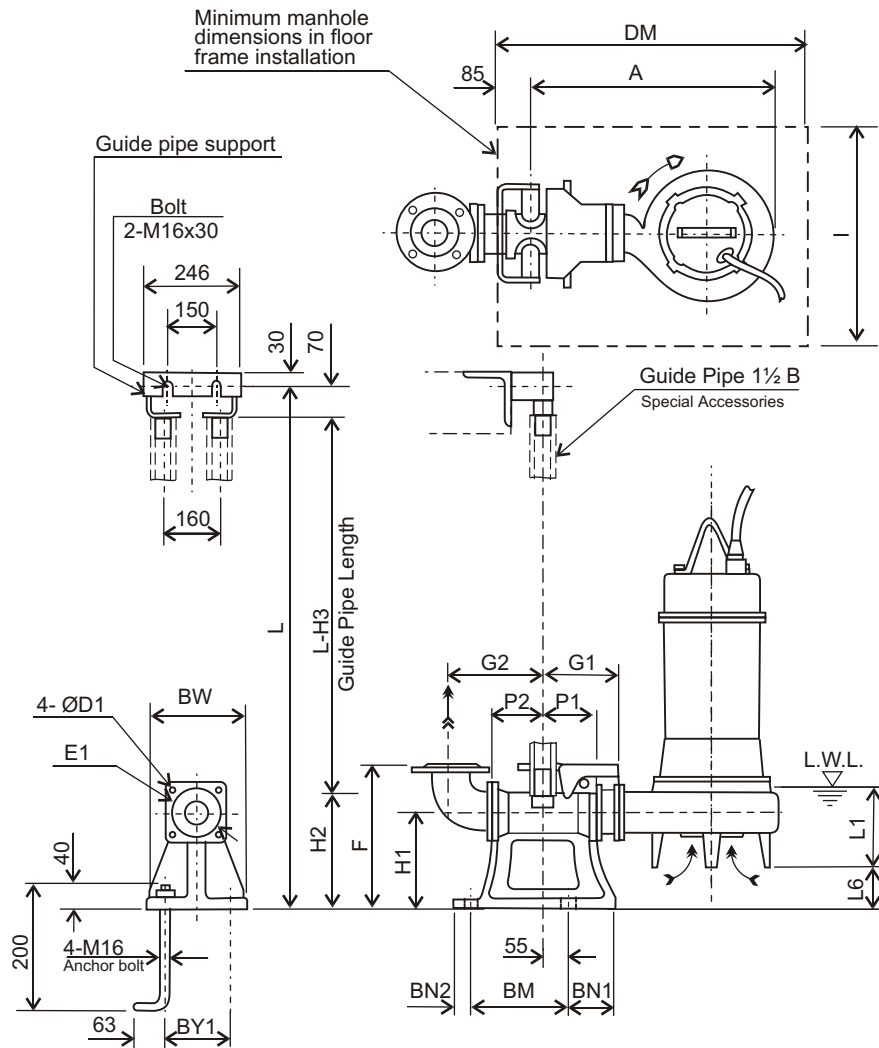
Units: mm unless otherwise specified

# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

## Dimensions with QDC

Pump **DML** QDC **LL**

### Applicable Models - 80(100)(150) DML



Note:

1/. For detailed dimensions of the pumps, refer to separate dimension data sheets.

2/. The discharge bend and companion flange supplied with the pump are used with the QDC.

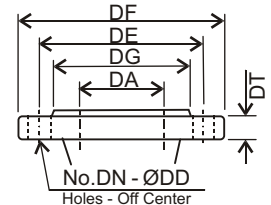
3/. The weight in dimension tables refers only to the weight of the QDC.

4/. Standard accessories supplied with QDC include:-

- Connector body with foundation bolts.
- Guide pipe support
- Sliding Glide
- Adaptor Flange

Guide Pipe is not supplied.

Discharge Flange  
(JIS 10kgf/cm<sup>2</sup>)



DA	DE	DF	DG	DT	DN	DD
80	150	185	126	18	8	15
100	175	210	151	20	8	15
150	240	280	212	22	8	19

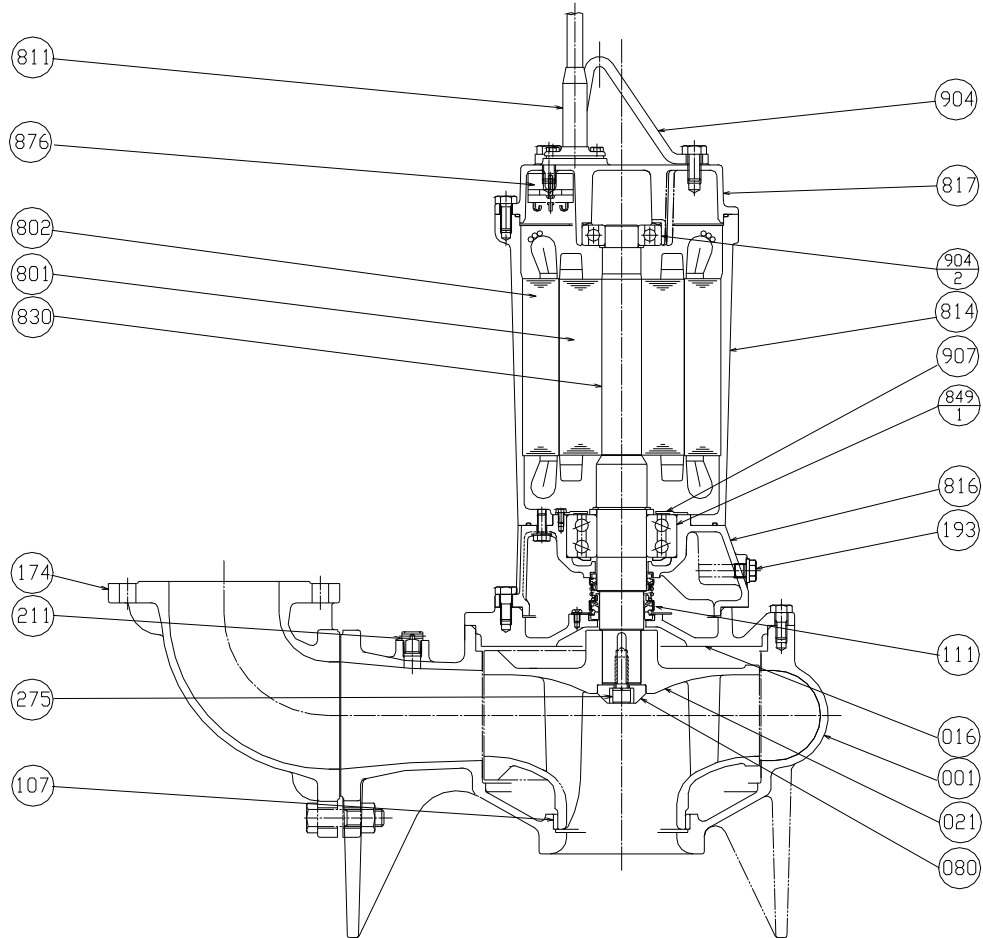
Pump Model	A	P1	P2	G1	G2	F	H1	H2	H3	L1	L6	BN1	BN2	BM	BY1	BW	DM	I	D1	E1	QDC Model	Weight
80 DML 55.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LL100	46 kg
80 DML 57.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LL100	46 kg
80 DML 511	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LL100	46 kg
80 DML 515	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LL100	46 kg
80 DML 522	765	105	105	185	210	365	240	265	335	332	12	100	40	220	180	230	1000	700	19	175	LL100	46 kg
100 DML 53.7	552	105	120	185	225	365	240	255	325	279	52	100	40	220	180	230	800	700	15	155	LL80	44 kg
100 DML 55.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LL100	46 kg
100 DML 57.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LL100	46 kg
100 DML 511	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LL100	46 kg
100 DML 515	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LL100	46 kg
100 DML 522	765	105	105	185	210	365	240	265	335	332	12	100	40	220	180	230	1000	700	19	175	LL100	46 kg
150 DML 55.5	628	105	105	185	235	400	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LL100	46 kg
150 DML 57.5	628	105	105	185	235	400	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LL100	46 kg
150 DML 511	721	105	105	185	235	400	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LL100	46 kg
150 DML 515	721	105	105	185	235	400	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LL100	46 kg
150 DML 522	765	105	105	185	235	400	240	265	335	332	12	100	40	220	180	230	1000	700	19	175	LL100	46 kg

Units: mm unless otherwise specified

# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

## Sectional View - 80 DML 52.2

50Hz



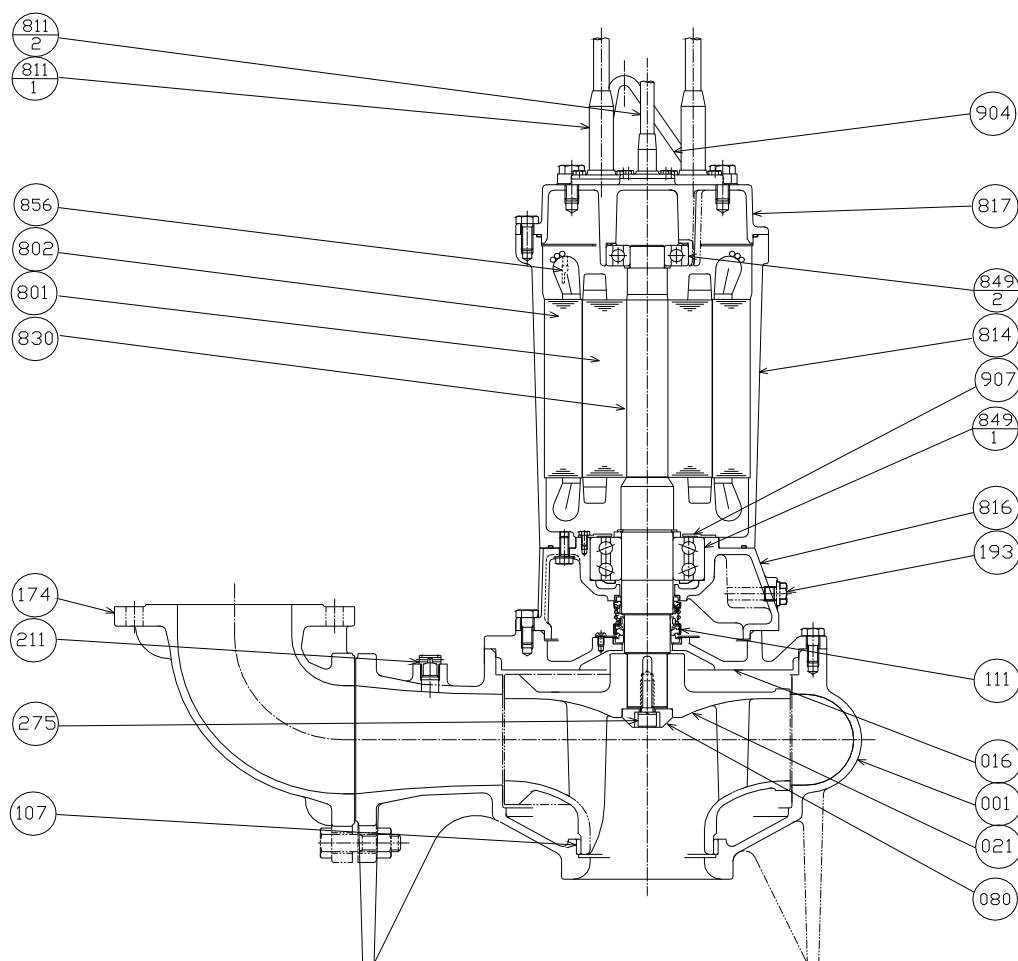
Item Number	Description	Material	Quantity per unit
001	Pump Casing	FC200 Cast iron	1
016	Mechanical Seal Cover	FC200 Cast iron	1
021	Impeller	FC200 Cast iron	1
080	Bushing	SS Steel	1
107	Wearing Ring	BC Bronze	1
111	Mechanical Seal		1
174	Discharge Pipe	FC200 Cast iron	1
193	Oil Plug	NBR/Stainless Steel	1 set
211	Airvent Valve	C3604 Brass	1
275	Impeller Bolt	SUS304 Stainless Steel	1
801	Rotor		1
802	Stator		1

Item Number	Description	Material	Quantity per unit
811	Submersible Cable		2
814	Motor Frame	FC200 Cast Iron	1
816	Power Side Bracket	FC200 Cast Iron	1
817	Opposite Side Bracket	FC200 Cast Iron	1
830	Shaft	SUS403 Stainless Steel	1
849-1	Ball Bearing		1
849-2	Ball Bearing		1
876	Auto Cut		3
904	Lifting Hanger	SS Steel	1
907	Bearing Cover	SPCC Steel	1

# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

## Sectional View - 80(100)(150) DML (3.7~7.5kW)

50Hz



Item Number	Description	Material	Quantity per unit
001	Pump Casing	FC200 Cast iron	1
016	Mechanical Seal Cover	FC200 Cast iron	1
021	Impeller	FC200 Cast iron	1
080	Bushing	SS Steel	1
107	Wearing Ring	BC Bronze	1
111	Mechanical Seal		1
174	Discharge Pipe	FC200 Cast iron	1
193	Oil Plug	NBR/Stainless Steel	1 set
211	Airvent Valve	C3604 Brass	1
275	Impeller Bolt	SUS304 Stainless Steel	1
801	Rotor		1
802	Stator		1

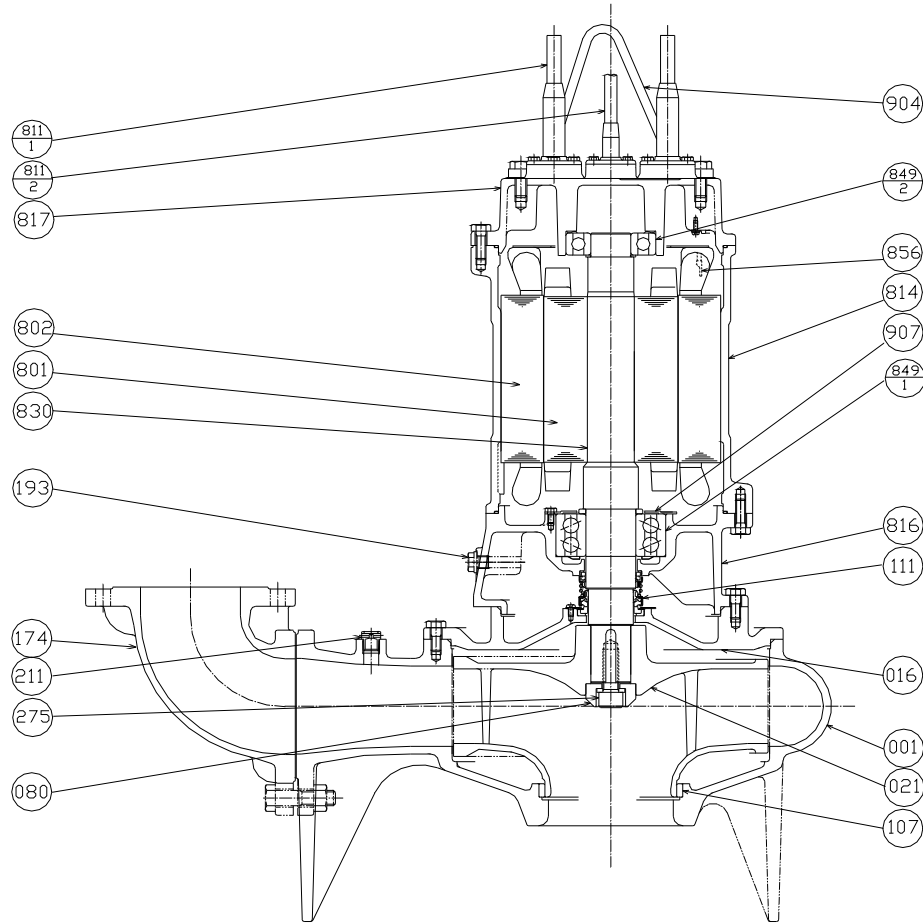
Item Number	Description	Material	Quantity per unit
811-1	Submersible Cable (Power)		2
811-2	Submersible Cable (signal)		1
814	Motor Frame	FC200 Cast Iron	1
816	Power Side Bracket	FC200 Cast Iron	1
817	Opposite Side Bracket	FC200 Cast Iron	1
830	Shaft	SUS403 Stainless Steel	1
849-1	Ball Bearing		1
849-2	Ball Bearing		1
856	Thermal Protector		3
904	Lifting Hanger	SS Steel	1
907	Bearing Cover	SPCC Steel	1



# Ebara Submersible Sewage Pumps (Single Channel Impeller) Model **DML**

## Sectional View - 80(100)(150) DML (11~22kW)

50Hz



Item Number	Description	Material	Quantity per unit
001	Pump Casing	FC200 Cast iron	1
016	Mechanical Seal Cover	FC200 Cast iron	1
021	Impeller	FC200 Cast iron	1
080	Bushing	SS Steel	1
107	Wearing Ring	BC Bronze	1
111	Mechanical Seal		1
174	Discharge Pipe	FC200 Cast iron	1
193	Oil Plug	NBR/Stainless Steel	1 set
211	Airvent Valve	C3604 Brass	1
275	Impeller Bolt	SUS304 Stainless Steel	1
801	Rotor		1
802	Stator		1

Item Number	Description	Material	Quantity per unit
811-1	Submersible Cable (Power)		2
811-2	Submersible Cable (signal)		1
814	Motor Frame	FC200 Cast Iron	1
816	Power Side Bracket	FC200 Cast Iron	1
817	Opposite Side Bracket	FC200 Cast Iron	1
830	Shaft	SUS403 Stainless Steel	1
849-1	Ball Bearing		1
849-2	Ball Bearing		1
856	Thermal Protector		3
904	Lifting Hanger	SS Steel	1
907	Bearing Cover	SPCC Steel	1