# DML 50Hz

## Features

**Non-clog single channel impeller**

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

**Robust construction**

Large diameter and short overhang shaft, rugged castiron 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 effeciency, Energy saving**

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

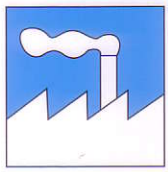
**Long life**

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.

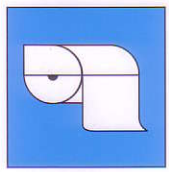
## Applications



Industrial drainage



Drainage

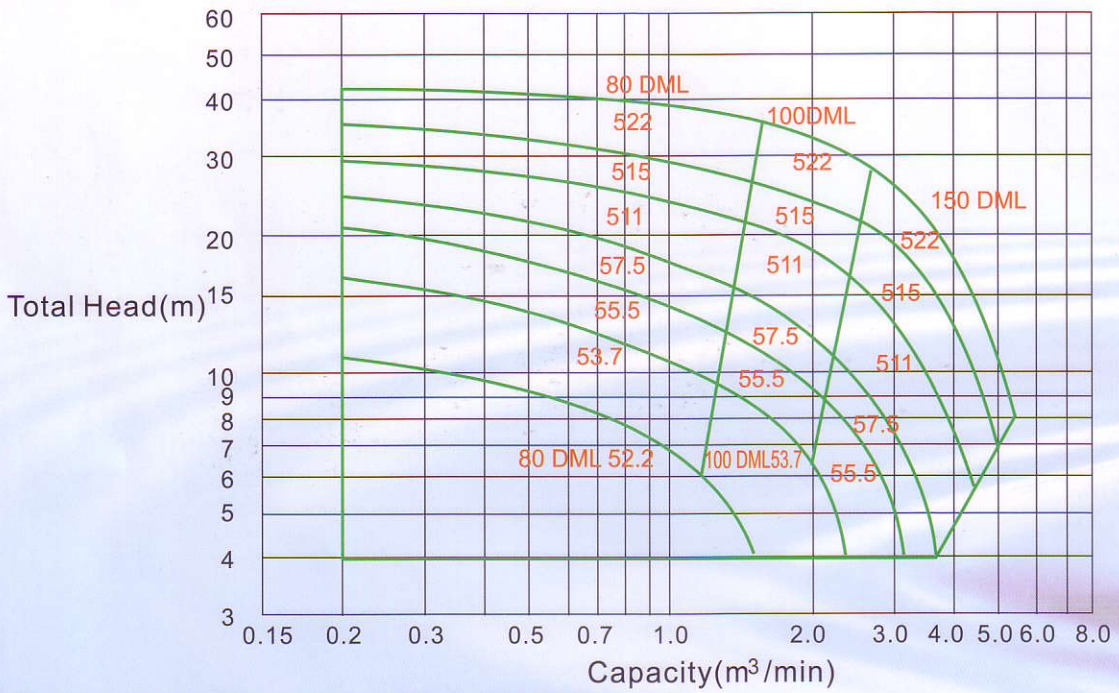


Sewage

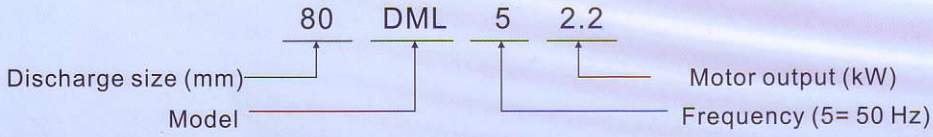


Irrigation

## Performance Chart




## Model Symbols

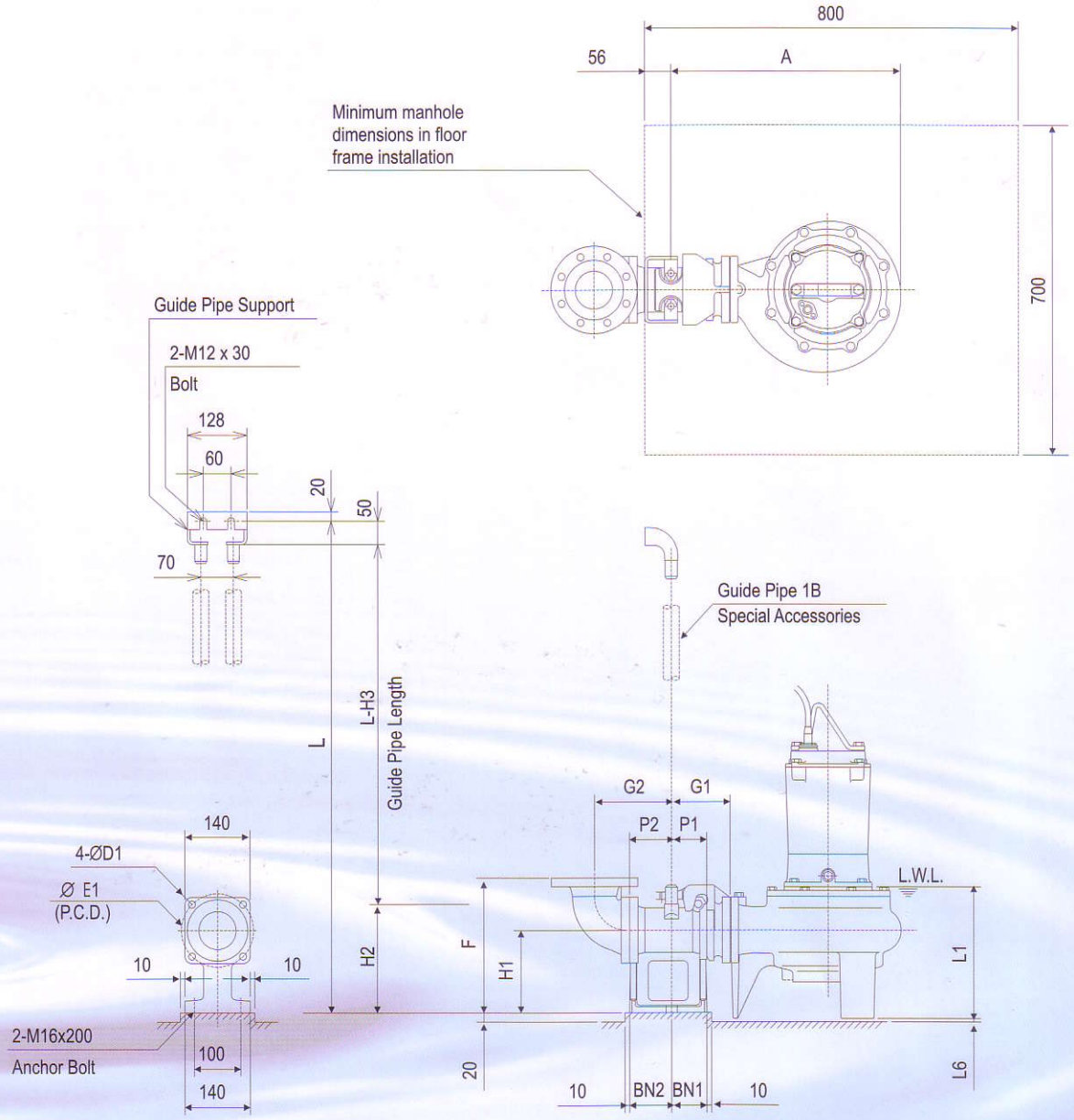



## Performance Data

| MODEL | Ø80 | | Ø100 | | Ø150 | |
|---|---|---|---|---|---|---|
| | CAP.(l/min) | HEAD(m) | CAP.(l/min) | HEAD(m) | CAP.(l/min) | HEAD(m) |
| DML 52.2 | 200 -1600 | 11.2 -4.0 | | | | |
| DML 53.7 | 200 -1338 | 15.8 -9.1 | 1338 -2407 | 9.1 -4.0 | | |
| DML 55.5 | 300 -1400 | 19.3 -12.8 | 1400 -2194 | 12.8 -9.3 | 2194 -3379 | 9.3 - 4.0 |
| DML 57.5 | 300 -1449 | 22.6 -16.00 | 1449 -2270 | 16.0 -12.6 | 2270 -3987 | 12.6 - 4.0 |
| DML 511 | 300 -1512 | 28.5 -22.7 | 1512 -2368 | 22.7 -18.3 | 2368 -4472 | 18.3 - 5.5 |
| DML 515 | 300 -1557 | 34.0 -28.4 | 1557 -2440 | 28.4 -23.7 | 2440 -5102 | 23.7 - 8.0 |
| DML 522 | 300 -1595 | 39.5 -34.0 | 1595 -2489 | 34.0 -28.0 | 2489 -5566 | 28.0 -10.0 |

Remarks : 1 m = 3.28 ft  1 liter = 0.2642 gal (US)  1 liter = 0.220 gal (UK)

## Dimensions with LM type QDC- Applicable Models: 80 DML 52.2 53.7




| 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 | 17kg |
| 80 DML 53.7 | 492 | 75 | 90 | 125 | 165 | 285 | 175 | 230 | 280 | 279 | 7 | 75 | 90 | 15 | 155 | LM80 | 17kg |

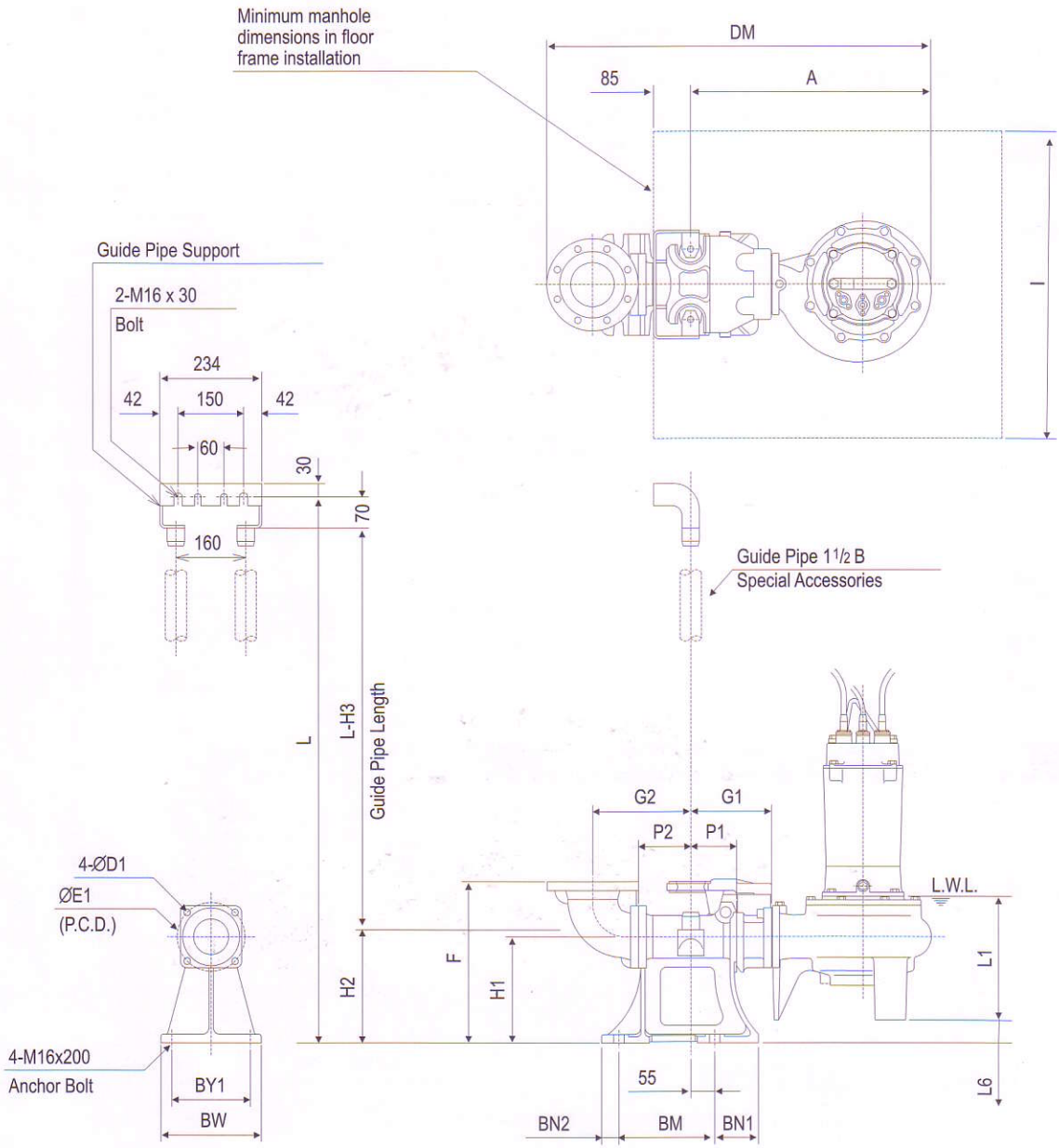
Units: mm unless otherwise specified

Note:

1. For detail dimensions of the pumps, refer to separate dimension data sheet.
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
   - Adaptor flange

Guide pipe is not supplied.

## Dimensions with LL type QDC- Applicable Models: 80(100)(150) DML



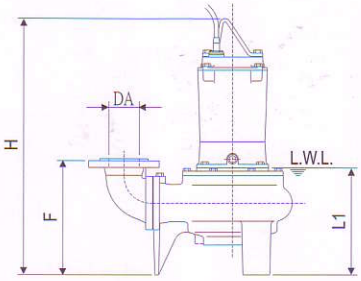

| Pump Model | A | P1 | P2 | G1 | G2 | F | H1 | H2 | H3 | L1 | L6 | BN1 | BN2 | BM | BY1 | BW | DM | I | D1 | E1 | QDC Model | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80 DML 55.5 | 628 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 310 | 31 | 100 | 40 | 220 | 180 | 230 | 800 | 700 | 19 | 175 | LL100 | 46kg |
| 80 DML 57.5 | 628 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 310 | 31 | 100 | 40 | 220 | 180 | 230 | 800 | 700 | 19 | 175 | LI100 | 46kg |
| 80 DML 511 | 721 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 329 | 15 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 80 DML 515 | 721 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 329 | 15 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 80 DML 522 | 765 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 332 | 12 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 100 DML 53.7 | 552 | 105 | 120 | 185 | 225 | 365 | 240 | 255 | 325 | 279 | 52 | 100 | 40 | 220 | 180 | 230 | 800 | 700 | 15 | 155 | LI100 | 44kg |
| 100 DML 55.5 | 628 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 310 | 31 | 100 | 40 | 220 | 180 | 230 | 800 | 700 | 19 | 175 | LI100 | 46kg |
| 100 DML 57.5 | 628 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 310 | 31 | 100 | 40 | 220 | 180 | 230 | 800 | 700 | 19 | 175 | LI100 | 46kg |
| 100 DML 511 | 721 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 329 | 15 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 100 DML 515 | 721 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 329 | 15 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 100 DML 522 | 765 | 105 | 105 | 185 | 210 | 365 | 240 | 265 | 335 | 332 | 12 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 150 DML 55.5 | 628 | 105 | 105 | 185 | 235 | 400 | 240 | 265 | 335 | 310 | 31 | 100 | 40 | 220 | 180 | 230 | 800 | 700 | 19 | 175 | LI100 | 46kg |
| 150 DML 57.5 | 628 | 105 | 105 | 185 | 235 | 400 | 240 | 265 | 335 | 310 | 31 | 100 | 40 | 220 | 180 | 230 | 800 | 700 | 19 | 175 | LI100 | 46kg |
| 150 DML 511 | 721 | 105 | 105 | 185 | 235 | 400 | 240 | 265 | 335 | 329 | 15 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 150 DML 515 | 721 | 105 | 105 | 185 | 235 | 400 | 240 | 265 | 335 | 329 | 15 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |
| 150 DML 522 | 765 | 105 | 105 | 185 | 235 | 400 | 240 | 265 | 335 | 332 | 12 | 100 | 40 | 220 | 180 | 230 | 1000 | 700 | 19 | 175 | LI100 | 46kg |

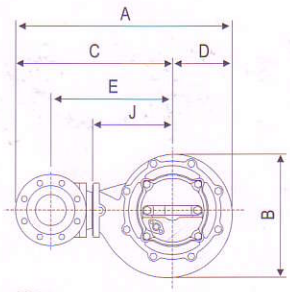
Units: mm unless otherwise specified

## Specification

| | | Standard | Optional |
|---|---|---|---|
| Liquid Handled | Type | Sewage, Wastewater | |
| | Maximum Temperature | 40℃ | |
| | Max. Solids | 76mm | |
| Submergence | Maximum | 8m | |
| | Minimum | Refer to low water level (L.W.L.) in dimensions. | |
| Construction | Impeller | Non-clog single channel | |
| | Mechanical Seal | Oil lubricated, double mechanical seal | |
| | Bearing | Prelubricated bearing | |
| 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 | Motor side : Carbon/Ceramic<br>Impeller side: Silicon carbide<br>Lubricating Oil: Turbine Oil VG32 (SAE 10W/20W) | |
| Cable | Length | 10m | |
| Accessories | Flange | Discharge elbow with screwed companion flange | |
| | | | Quick Discharge Connector (QDC) |

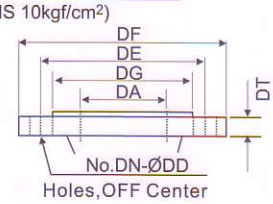
## Dimensions - without QDC




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)



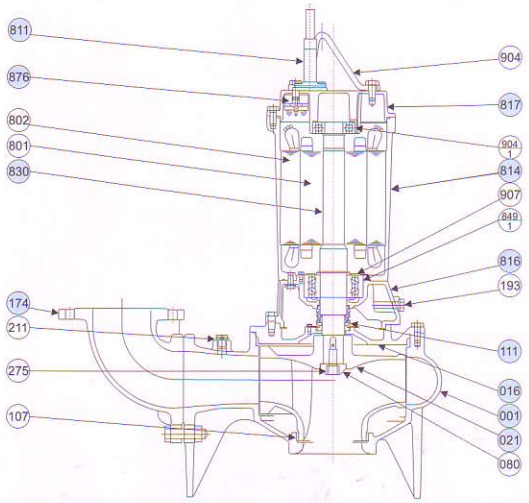

| DA | DE | DF | DG | DT | DN | DD |
|---|---|---|---|---|---|---|
| 80 | 150 | 185 | 126 | 18 | 8 | 15 |
| 100 | 175 | 210 | 151 | 20 | 8 | 15 |
| 150 | 240 | 280 | 212 | 22 | 8 | 19 |

| Size | Model | Output (kw) | A | B | C | D | E | F | H | J | LI | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80 | 80 DML 52.2 | 2.2 | 534 | 320 | 378 | 157 | 285 | 298 | 668 | 210 | 279 | 80 |
| | 80 DML 53.7 | 3.7 | 534 | 320 | 378 | 157 | 285 | 298 | 727 | 210 | 279 | 87 |
| | 80 DML 55.5 | 5.5 | 640 | 381 | 453 | 188 | 360 | 334 | 824 | 255 | 310 | 118 |
| | 80 DML 57.5 | 7.5 | 640 | 381 | 453 | 188 | 360 | 334 | 824 | 255 | 310 | 123 |
| | 80 DML 511 | 11 | 734 | 455 | 513 | 221 | 420 | 350 | 938 | 315 | 329 | 157 |
| | 80 DML 515 | 15 | 734 | 455 | 513 | 221 | 420 | 350 | 938 | 315 | 329 | 163 |
| | 80 DML 522 | 22 | 777 | 497 | 533 | 245 | 440 | 363 | 1021 | 335 | 342 | 223 |
| 100 | 100 DML 53.7 | 3.7 | 577 | 320 | 420 | 157 | 315 | 313 | 727 | 210 | 279 | 89 |
| | 100 DML 55.5 | 5.5 | 653 | 381 | 465 | 188 | 360 | 334 | 824 | 255 | 310 | 121 |
| | 100 DML 57.5 | 7.5 | 653 | 381 | 465 | 188 | 360 | 334 | 824 | 255 | 310 | 125 |
| | 100 DML 511 | 11 | 746 | 455 | 525 | 221 | 420 | 350 | 938 | 315 | 329 | 160 |
| | 100 DML 515 | 15 | 746 | 455 | 525 | 221 | 420 | 350 | 938 | 315 | 329 | 166 |
| | 100 DML 522 | 22 | 790 | 497 | 545 | 245 | 440 | 363 | 1021 | 335 | 342 | 226 |
| 150 | 150 DML 55.5 | 5.5 | 713 | 381 | 525 | 188 | 385 | 369 | 824 | 255 | 310 | 127 |
| | 150 DML 57.5 | 7.5 | 713 | 381 | 525 | 188 | 385 | 369 | 824 | 255 | 310 | 132 |
| | 150 DML 511 | 11 | 806 | 455 | 585 | 221 | 445 | 385 | 938 | 315 | 329 | 166 |
| | 150 DML 515 | 15 | 806 | 455 | 585 | 221 | 445 | 385 | 938 | 315 | 329 | 172 |
| | 150 DML 522 | 22 | 850 | 497 | 605 | 245 | 465 | 398 | 1021 | 335 | 342 | 232 |

Units: mm unless otherwise specified

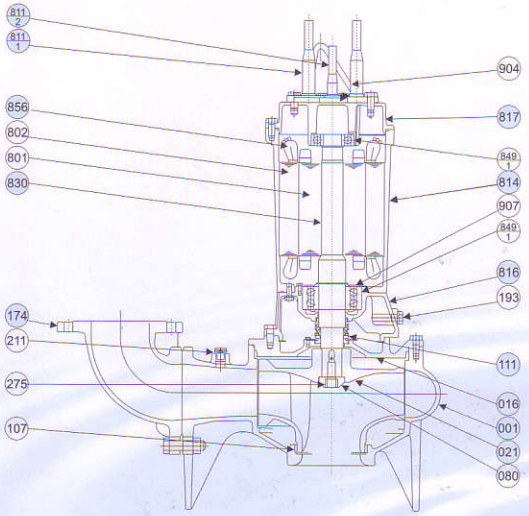
# DML 50Hz

## Sectional View - 80DML52.2




| Item Number | Description | Material | Quantity per unit |
|---|---|---|---|
| 876 | Auto Cut | | 1 |
| 830 | Shaft | SUS403 Stainless Steel | 1 |
| 817 | Opposite Side Bracket | FC200 Cast iron | 1 |
| 816 | Power Side Bracket | FC200 Cast iron | 1 |
| 814 | Motor Frame | FC200 Cast iron | 1 |
| 811 | Submersible Cable | | 1 |
| 174 | Discharge Pipe | FC200 Cast iron | 1 |
| 111 | Mechanical Seal | | 1 |
| 021 | Impeller | FC200 Cast iron | 1 |
| 016 | Mechanical Seal Cover | FC200 Cast iron | 1 |
| 001 | Pump Casing | FC200 Cast iron | 1 |

## Sectional View-Others




| Item Number | Description | Material | Quantity per unit |
|---|---|---|---|
| 856 | Thermal Protector | | 1 |
| 830 | Shaft | SUS403 Stainless Steel | 1 |
| 817 | Opposite Side Bracket | FC200 Cast iron | 1 |
| 816 | Power Side Bracket | FC200 Cast iron | 1 |
| 814 | Motor Frame | FC200 Cast iron | 1 |
| 811-2 | Submersible Cable(Signal) | | 1 |
| 811-1 | Submersible Cable(Power) | | 2 |
| 174 | Discharge Pipe | FC200 Cast iron | 1 |
| 111 | Mechanical Seal | | 1 |
| 021 | Impeller | FC200 Cast iron | 1 |
| 016 | Mechanical Seal Cover | FC200 Cast iron | 1 |
| 001 | Pump Casing | FC200 Cast iron | |

## Motor Spec.

| | Standard | Optional |
|---|---|---|
| Type | Air filled dry submersible, IP68, Class F insulation | |
| Norminal Speed | 4 pole 1500 rpm | |
| Applicable Voltages | 380/400/415 volts 3 phase 50 Hz | |
| Starting | DOL (2.2 kW)<br>Star-Delta (3.7 to 22 kW) | |
| Protection | Inbuilt overload protection (2.2 kW)<br>Miniature thermal protector (3.7 to 22 kW) | |

## Painting

| | |
|---|---|
| Surface preparation | Sa2 or St3 |
| Primer coating | Zinc chromate primer<br>Colour : Rusty<br>Thickness: 20 ~ 25 micra |
| Over coating | KR MARINE paint primer<br>Colour : Black<br>Thickness: 30 ~ 40 micra |

## Accessories

Nameplate for ground installation:1piece  Cable band:3pieces  Instruction manual:1copy

Note:All specifications are subject to change without further notice.


EBARA

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