



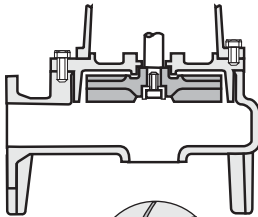
with Vortex Impeller

**Model DMLV**

**Submersible Vortex Pumps**

Submersible pumps with non clog vortex impellers and double row lower bearings for reliability. Suitable for waste water containing soft solids, raw sewage, storm water, etc.

**Impeller Type & Solids Handling**



Vortex Impeller



|                            |    |     |     |
|----------------------------|----|-----|-----|
| Model                      | Ø  | 80  | 100 |
|                            | kW | All | All |
| Free impeller Passage (mm) |    | 80  | 100 |



**Specifications**

- Submersible sewage pump with vortex impeller
- Maximum solids handling: 80mm or 100mm
- Maximum liquid temperature: 40°C
- Maximum submergence: 8m

**Materials**

- Pump casing: Cast Iron
- Impeller: Cast Iron
- Shaft : 403 Stainless Steel
- Motor frame: Cast Iron
- Fasteners: 304 Stainless Steel
- Mechanical seal:

Double mechanical seal in oil lubricated chamber, Silicon Carbide lower faces, Carbon/Ceramic upper faces.

**Motor Data**

- Air filled, dry submersible, 4 pole motor
- Y-Δ Star-Delta Starting (DOL for 2.2 kW only)
- Insulation class F
- IPx8 protection
- 3 phase, 400 Volt, 50 Hz

**Scope**

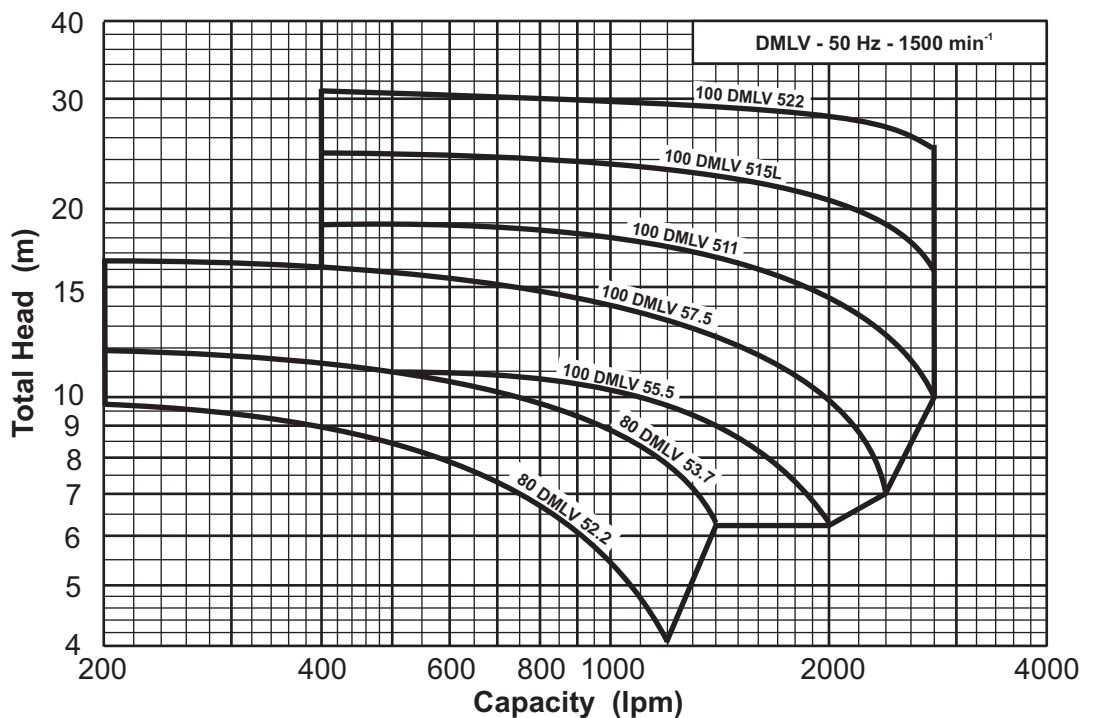
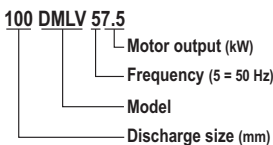
- 10 m cable(s)
- Discharge elbow with companion flange,
- Optional Quick Discharge Connectors available

**Performance Curve**

Synchronous Speed: 1450 r.p.m.

Applicable standard of test : ISO 9906 Annex A

**Model Code**

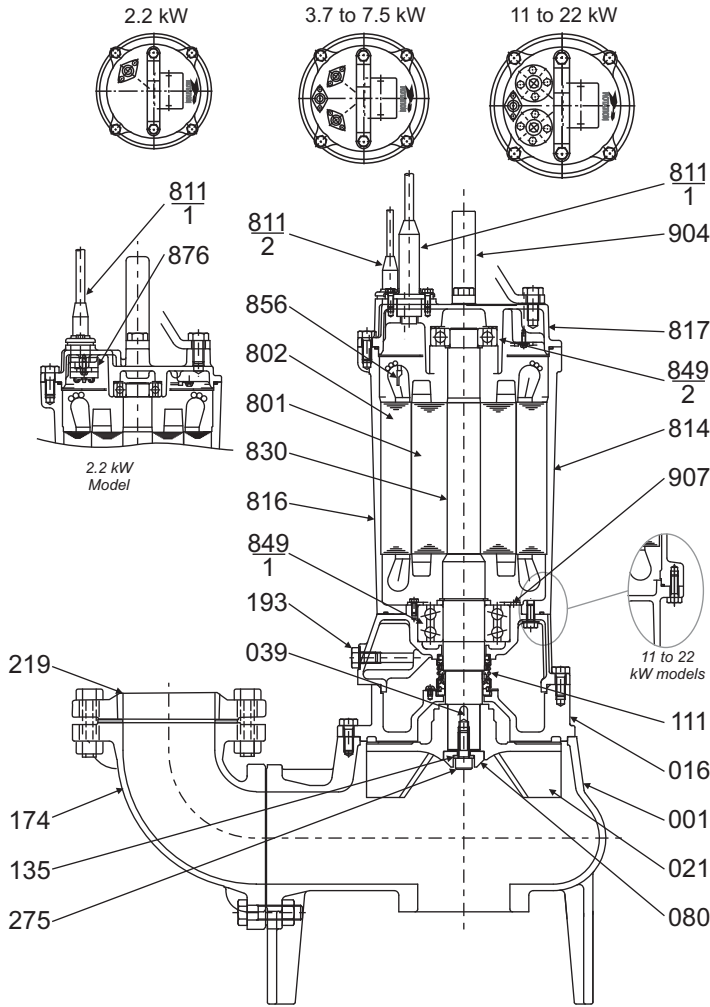


**Performance Table**

| Pump Model    | Motor Output | Discharge Ø mm | Full Load Current @ 400 V, 3ph. | Q= Capacity - litres/min |      |      |      |      |      |      |      |      |      |      |  |
|---------------|--------------|----------------|---------------------------------|--------------------------|------|------|------|------|------|------|------|------|------|------|--|
|               |              |                |                                 | 400                      | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2400 | 2800 |  |
| 80 DMLV 52.2  | 2.2 kW       | 80 mm          | 5.2 A                           | 9.0                      | 8.0  | 6.8  | 5.6  | 4.0  | --   | --   | --   | --   | --   | --   |  |
| 80 DMLV 53.7  | 3.7 kW       | 80 mm          | 8.4 A                           | 11.3                     | 10.7 | 9.9  | 9.1  | 8.0  | 6.3  | --   | --   | --   | --   | --   |  |
| 100 DMLV 55.5 | 5.5 kW       | 100 mm         | 12.6 A                          | --                       | 11.1 | 10.7 | 10.1 | 9.8  | 9.1  | 8.3  | 7.4  | 6.3  | --   | --   |  |
| 100 DMLV 57.5 | 7.5 kW       | 100 mm         | 16.9 A                          | --                       | 15.3 | 14.9 | 14.3 | 13.7 | 13.0 | 12.0 | 11.0 | 10.0 | 7.0  | --   |  |
| 100 DMLV 511  | 11.0 kW      | 100 mm         | 23.8 A                          | --                       | --   | 18.8 | 18.2 | 17.6 | 16.9 | 16.2 | 15.3 | 14.5 | 12.3 | 10.0 |  |
| 100 DMLV 515L | 15.0 kW      | 100 mm         | 31.0 A                          | --                       | --   | --   | 23.3 | 23.0 | 22.5 | 22.0 | 21.3 | 20.7 | 19.0 | 16.0 |  |
| 100 DMLV 522  | 22.0 kW      | 100 mm         | 42.0 A                          | --                       | --   | --   | 29.4 | 29.1 | 28.8 | 28.4 | 28.0 | 27.5 | 26.5 | 25.0 |  |

# Sectional Drawing

Model **DMLV**



| Item Number | Description           | Material   | Quantity per unit |
|-------------|-----------------------|--|-------------------|
| 001         | Casing                | FC200 Cast iron  | 1                 |
| 016         | Mechanical Seal Cover | FC200 Cast iron  | 1                 |
| 021         | Impeller              | FCD400 Graphite Cast iron                                  | 1                 |
| 039         | Impeller Key          | SUS304 Stainless Steel                                     | 1                 |
| 080         | Bushing               | SS Steel   | 1                 |
| 111         | Mechanical Seal       | Silicon Carbide lower faces<br>Carbon/ Ceramic upper faces | 1                 |
| 135         | Washer                | SUS304 Stainless Steel                                     | 1                 |
| 174         | Discharge Elbow       | FC200 Cast Iron  | 1                 |
| 193         | Oil Plug              | SUS Stainless Steel  | 1                 |
| 219         | Companion Flange      | FC200 Cast Iron  | 1                 |
| 275         | Impeller Bolt         | SUS304 Stainless Steel                                     | 1                 |
| 801         | Rotor                 |  | 1                 |
| 802         | Stator                |  | 1                 |
| 811-1       | Cable *               | 4 core power cable   | 1 or 2            |
| 811-2       | Cable                 | 2 core protector cable (except 2.2 kW)                     | 1                 |
| 814         | Motor Frame           | FC150 Cast iron  | 1                 |
| 816         | Lower Bracket         | FC150 Cast iron  | 1                 |
| 817         | Upper Bracket         | FC150 Cast iron  | 1                 |
| 830         | Shaft #               | SUS403 Stainless Steel                                     | 1                 |
| 849-1       | Ball Bearing          | Double Row lower bearing                                   | 1                 |
| 849-2       | Ball Bearing          |  | 1                 |
| 856         | Thermal Protector     | (except 2.2 kW)  | 2                 |
| 876         | Auto Cut              | (only 2.2 kW)  | 1                 |
| 904         | Lifting Hanger        | SS Steel   | 1                 |
| 907         | Bearing Cover         | SPCC Steel   | 1                 |

\* 2.2 kW - 1 cable, 3.7 kW & above - 2 cables  
# refers to pump side of shaft material

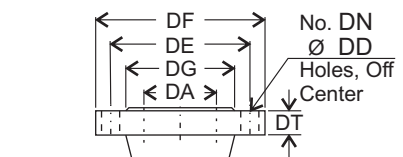
# Dimensions

Model **DMLV**

Units: mm unless otherwise specified

Note:  
1/ L1 (Low Water Level) - Limited to 10 minutes operation at low water level  
2/ L2 - Limited to 30 minutes operation with water level below motor cap.

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



| DA  | DE  | DF  | DG  | DT | DN | DD |
|-----|-----|-----|-----|----|----|----|
| 80  | 150 | 185 | 126 | 18 | 4  | 15 |
| 100 | 175 | 210 | 151 | 20 | 8  | 15 |

Submersible cable(s)  
Length CL = 10 metres

| Size DA | Model         | Output kW | A   | B   | C   | D   | E   | F   | H    | J   | L1  | L2  | Weight |
|---------|---------------|-----------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|--------|
| 80      | 80 DMLV 52.2  | 2.2       | 518 | 285 | 375 | 143 | 275 | 254 | 660  | 200 | 200 | 560 | 70 kg  |
|         | 80 DMLV 53.7  | 3.7       | 518 | 285 | 375 | 143 | 275 | 254 | 721  | 200 | 200 | 620 | 80 kg  |
| 100     | 100 DMLV 55.5 | 5.5       | 584 | 308 | 430 | 154 | 320 | 305 | 860  | 215 | 250 | 760 | 105 kg |
|         | 100 DMLV 57.5 | 7.5       | 641 | 352 | 465 | 176 | 355 | 305 | 860  | 250 | 250 | 760 | 120 kg |
|         | 100 DMLV 511  | 11        | 641 | 352 | 465 | 176 | 355 | 305 | 970  | 250 | 250 | 810 | 150 kg |
|         | 100 DMLV 515L | 15        | 728 | 426 | 515 | 213 | 405 | 305 | 970  | 300 | 250 | 810 | 180 kg |
|         | 100 DMLV 522  | 22        | 728 | 426 | 515 | 213 | 405 | 305 | 1045 | 300 | 250 | 865 | 235 kg |

Specifications subject to change without notice