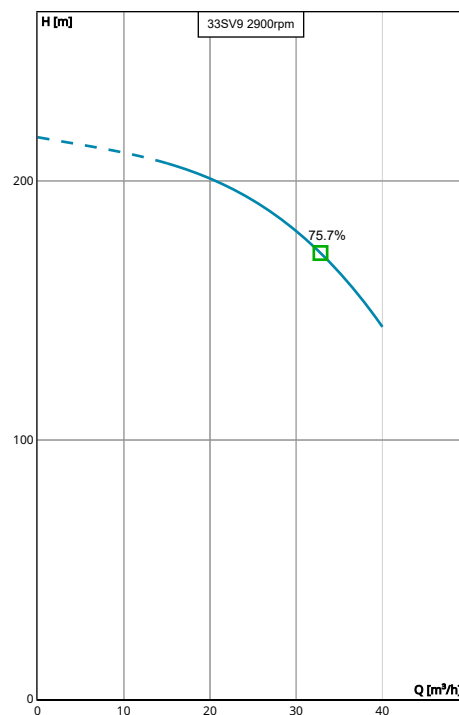


## 33SV9N220T/D | Configuration Summary



The Lowara e-SV vertical multistage pump is a highly reliable and technologically advanced multipurpose pump. It's capable of satisfying the needs of a wide variety of users and many different construction designs are available. The e-SV range feature models in eleven sizes with 1-3-5-10-15-22-33-46-66-92-125 m<sup>3</sup>/h nominal capacities.



Performance according to ISO 9906:2012

### PUMP

|               |           |
|---------------|-----------|
| Installation  | Pump Size |
| Complete Pump | 33SV      |

### MATERIALS

|                    |                             |
|--------------------|-----------------------------|
| Pump Body Material | Impeller Material           |
| Stainless Steel    | Stainless Steel (AISI 316L) |

### SEAL

|                  |                          |
|------------------|--------------------------|
| Type of Seal     | Rotating Face            |
| Mechanical Seals | Silicon Carbide          |
| Name             | Stationary Face          |
| Q1BEGG           | Resin Impregnated Carbon |
|                  | Elastomers               |
|                  | EPDM                     |
|                  | Springs                  |
|                  | AISI 316                 |
|                  | Metal Components         |
|                  | AISI 316                 |
|                  | Min Temperature          |
|                  | -30.0 °C                 |
|                  | Max Temperature          |
|                  | 120.0 °C                 |

### STANDARD OPTIONS

|            |                       |
|------------|-----------------------|
| PTC Sensor | Special Configuration |
| No         | Please Select         |

### MOTOR

|                |                   |
|----------------|-------------------|
| Vendor         | Power             |
| Lowara PLM     | 22 kW             |
| Frequency (Hz) | Phase (~)         |
| 50             | 3                 |
| Poles          | Voltage           |
| 2              | 380-415/660-690 V |
| Efficiency     | Frame Size        |
| IE3            | 180 M             |

### FLANGE

|                                |
|--------------------------------|
| Flange                         |
| [N] = Round Flanges (AISI 316) |

## 33SV9N220T/D | Product Details



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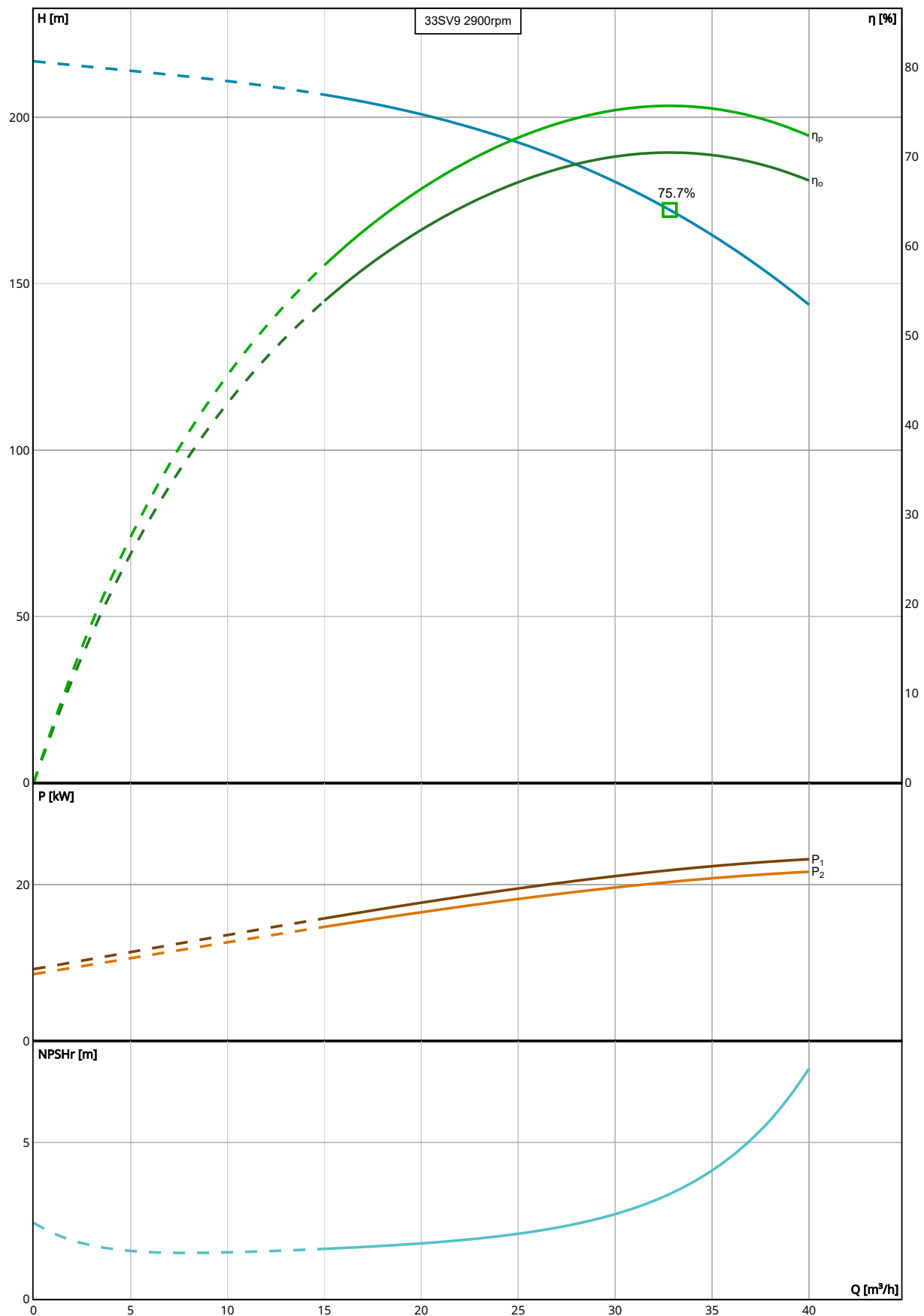
### Construction Materials

|                                                              |                                                        |                                                         |                                                               |
|--------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------|
| <b>Pump body (1)</b><br>Stainless Steel / ASTM CF8M          | <b>Outer sleeve (4)</b><br>Stainless steel / AISI 316L | <b>Coupling (8)</b><br>Cast Iron / ASTM Class 25        | <b>Elastomers (11)</b><br>See Seal section                    |
| <b>Lower support (1A)</b><br>Stainless Steel / ASTM CF8M     | <b>Shaft (5)</b><br>Duplex stainless steel             | <b>Upper head (9)</b><br>Stainless Steel / ASTM CF8M    | <b>Coupling protection (12)</b><br>Stainless steel / AISI 304 |
| <b>Impeller (2)</b><br>Stainless steel / AISI 316L           | <b>Adapter (6)</b><br>Cast Iron / ASTM Class 25        | <b>Seal housing (9A)</b><br>Stainless Steel / ASTM CF8M | <b>Shaft sleeve and bushing (13)</b><br>Tungsten carbide      |
| <b>Diffuser (3)</b><br>Stainless steel / AISI 316L           | <b>Wear ring (7)</b><br>Technopolymer PPS              | <b>Mechanical seal (10)</b><br>See Seal section         | <b>Bushing for diffuser (14)</b><br>Carbon                    |
| <b>Fill / Drain plugs (15)</b><br>Stainless steel / AISI 316 |                                                        |                                                         |                                                               |
| <b>Tie rods (16)</b><br>Stainless steel / AISI 431           |                                                        |                                                         |                                                               |

### Motor

|                                        |                                     |                                     |                            |
|----------------------------------------|-------------------------------------|-------------------------------------|----------------------------|
| <b>Motor Name</b><br>PLM 180R B5 22 kW | <b>Phase</b><br>3                   | <b>IE Class</b><br>IE3              | <b>Frame Size</b><br>180 M |
| <b>Design</b><br>IM B5                 | <b>Rated power</b><br>22 kW         | <b>Enclosure</b><br>IP 55           | <b>ICL</b><br>F            |
| <b>Standard</b><br>IEC                 | <b>Service Factor</b><br>1          | <b>Efficiency (%)</b><br>93.1       | <b>Motor Vendor</b><br>PLM |
| <b>Shaft Diameter</b><br>48 mm         | <b>Voltage</b><br>380-415/660-690 V | <b>cos phi</b><br>0.85              | <b>Weight</b><br>121.2 kg  |
| <b>L Shaft</b><br>110 mm               | <b>Speed</b><br>2950.0 rpm          | <b>Rated Current</b><br>42.2-23.3 A |                            |

## 33SV9N220T/D | Hydraulic Data & Performance Curve



Performance according to ISO 9906:2012

#### Selection

|                         |                 |
|-------------------------|-----------------|
| Series                  | Operating Pumps |
| e-SV                    | 1               |
| Name                    | Standby Pumps   |
| 33SV9 2900rpm           | No Standby Pump |
| Stages                  |                 |
| 9                       |                 |
| Frequency               |                 |
| 50 Hz                   |                 |
| Impeller Diameters      |                 |
| 9x 133 mm               |                 |
| Acceptance Grade        |                 |
| Manufacturer's Standard |                 |
| System Type             |                 |
| Single Pump             |                 |

#### Fluid and Operating Conditions

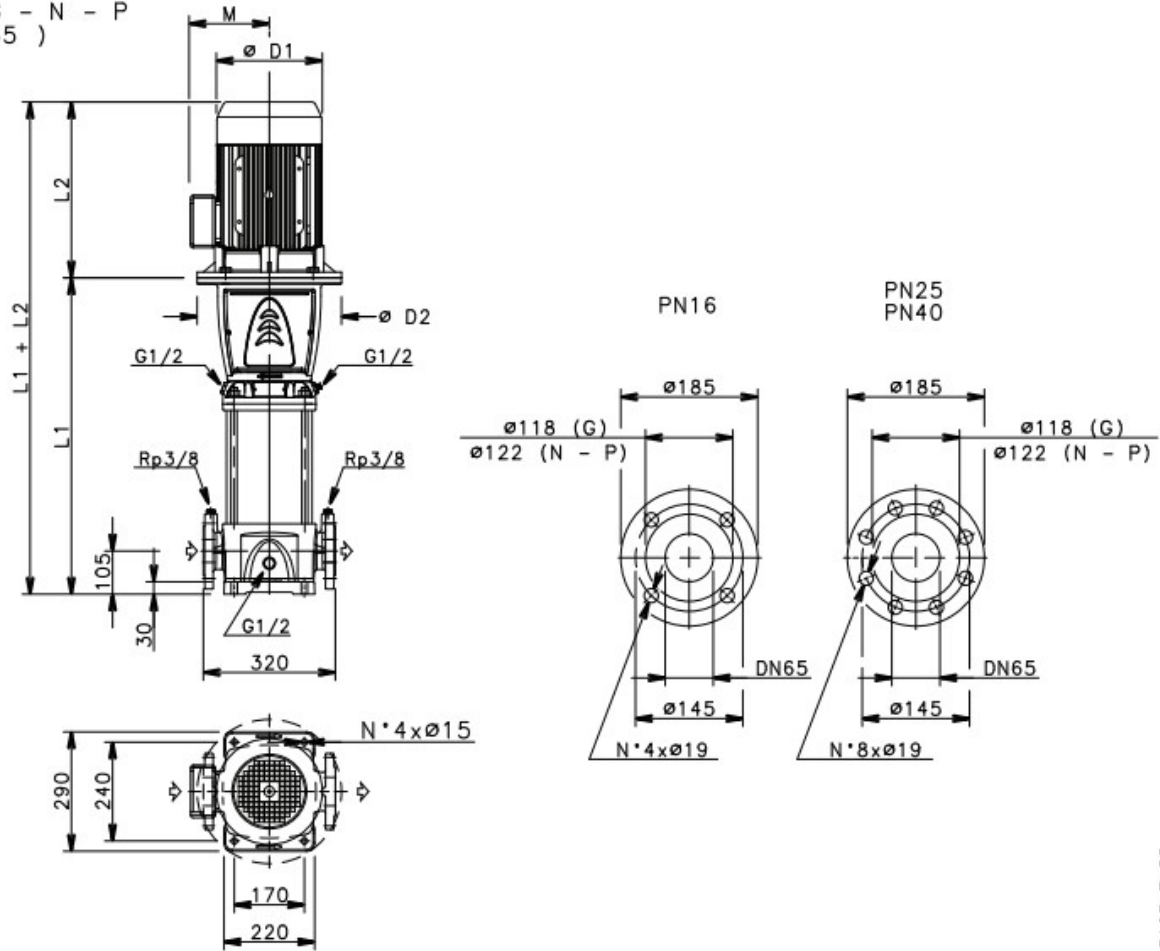
|                   |                         |
|-------------------|-------------------------|
| Fluid Type        | Density                 |
| Water             | 1,000 kg/m <sup>3</sup> |
| Fluid Temperature | Dynamic Viscosity       |
| 4 °C              | 0.002 Pa·s              |
| Specific Gravity  | Fluid Vapor Pressure    |
| 1                 | 8.14 mbar               |
|                   | Atmospheric Pressure    |
|                   | 1,013.53 mbar           |
|                   | Elevation               |
|                   | 0 m                     |
|                   | Ambient Temperature     |
|                   | 20 °C                   |
|                   | NPSH Available          |
|                   | 10.27 m                 |
|                   | Submergence             |
|                   | 0 m                     |

#### Design Curve

|                      |                         |
|----------------------|-------------------------|
| Rated Speed          | BEP                     |
| 2,900 RPM            | 75.68 %                 |
| Min Flow             | BEP Flow                |
| 15 m <sup>3</sup> /h | 32.81 m <sup>3</sup> /h |
| Max Flow             | BEP Head                |
| 40 m <sup>3</sup> /h | 172.15 m                |
| H@QMin               | Max Operating Pressure  |
| 206.77 m             | 21,233.92 mbar          |
| H@QMax               | Max P2                  |
| 143.67 m             | 21.65 kW                |

## 33SV9N220T/D | Dimensional Data & Drawing

33SV G - N - P  
( DN65 )



Drawing is preliminary and is subject to change.

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### Dimensions

|         |                    |
|---------|--------------------|
| D1      | M                  |
| 313 mm  | 240 mm             |
| D2      | PN                 |
| 350 mm  | 25                 |
| L1      | Weight (Pump Only) |
| 1144 mm | 93 kg              |
| L2      | Total Weight       |
| 494 mm  | 214 kg             |