

## Pump Performance Datasheet

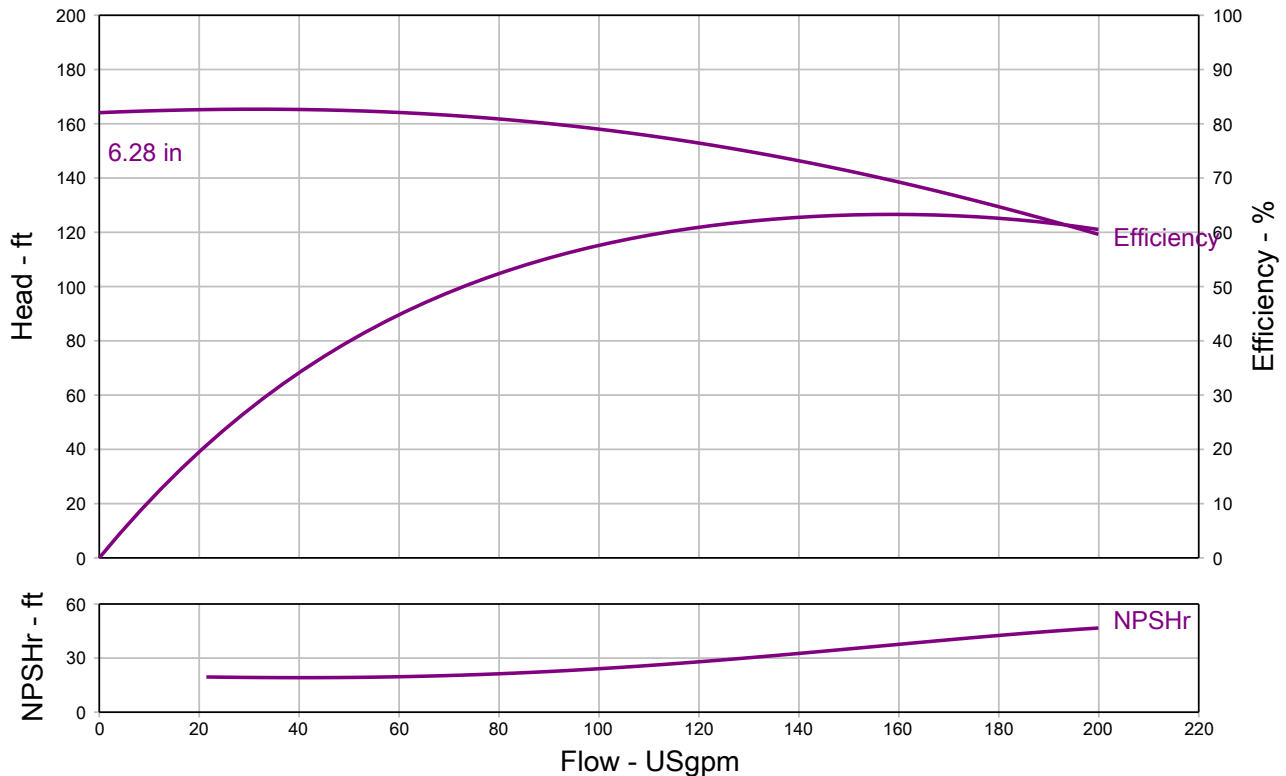
|                      |                         |                    |
|----------------------|-------------------------|--------------------|
| Customer :           | Quote Number / ID :     | 1471203            |
| Customer ref. / PO : | Model :                 | 15709 VL           |
| Tag Number : 001     | Stages :                | 1                  |
| Service :            | Based on curve number : | VL_15709_2P Rev 0  |
| Quantity : 1         | Basic model number :    | -                  |
|                      | Date last saved :       | 11/02/2023 6:23 PM |

| Operating Conditions                            |                     | Liquid                          |                    |
|---|---------------------|---------------------------------|--------------------|
| Flow, rated                                     | : 158.7 USgpm       | Liquid type                     | : Cold Water       |
| Differential head / pressure, rated (requested) | : 139.1 ft          | Additional liquid description   | :                  |
| Differential head / pressure, rated (actual)    | : 139.1 ft          | Solids diameter, max            | : 0.00 in          |
| Suction pressure, rated / max                   | : 0.00 / 0.00 psi.g | Solids concentration, by volume | : 0.00 %           |
| NPSH available, rated                           | : Ample             | Temperature, max                | : 68.00 deg F      |
| Site Supply Frequency                           | : 60 Hz             | Fluid density, rated / max      | : 1.000 / 1.000 SG |

| Performance                |            | Material          |                    |
|----------------------------|------------|-------------------|--------------------|
| Speed, rated               | : 3530 rpm | Material selected | : Cast iron - 125# |
| Impeller diameter, rated   | : 6.28 in  |                   |                    |
| Impeller diameter, maximum | : 7.10 in  |                   |                    |
| Impeller diameter, minimum | : 4.00 in  |                   |                    |

| Performance                            |                             | Pressure Data                      |               |
|--|-----------------------------|------------------------------------|---------------|
| Efficiency                             | : 63.30 %                   | Maximum working pressure           | : 71.57 psi.g |
| NPSH required / margin required        | : 37.30 / 0.00 ft           | Maximum allowable working pressure | : 175.0 psi.g |
| nq (imp. eye flow) / S (imp. eye flow) | : 18 / 55 Metric units      | Maximum allowable suction pressure | : 175.0 psi.g |
| MCSF                                   | : 50.19 USgpm               | Hydrostatic test pressure          | : 263.0 psi.g |
| Head, maximum, rated diameter          | : 165.4 ft                  |                                    |               |
| Head rise to shutoff                   | : 17.99 %                   |                                    |               |
| Flow, best eff. point                  | : 158.7 USgpm               |                                    |               |
| Flow ratio, rated / BEP                | : 100.00 %                  |                                    |               |
| Diameter ratio (rated / max)           | : 88.45 %                   |                                    |               |
| Head ratio (rated dia / max dia)       | : 71.75 %                   |                                    |               |
| Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]       | : 1.00 / 1.00 / 1.00 / 1.00 |                                    |               |
| Selection status                       | : Acceptable                |                                    |               |

| Energy Indexes |        | Driver & Power Data (@Max density) |                               |
|----------------|--------|------------------------------------|-------------------------------|
| PEI (CL)       | : 0.94 | Motor sizing specification         | : Max power (non-overloading) |
| ER (CL)        | : 6    | Margin over specification          | : 0.00 %                      |
|                |        | Service factor                     | : 1.00                        |
|                |        | Power, hydraulic                   | : 5.57 hp                     |
|                |        | Rated power (based on duty point)  | : 8.80 hp                     |
|                |        | Max power (non-overloading)        | : 9.95 hp                     |
|                |        | Nameplate motor rating             | : 10.00 hp / 7.46 kW          |



**Grundfos Series VL - In-Line Centrifugal Pump, Close Coupled**

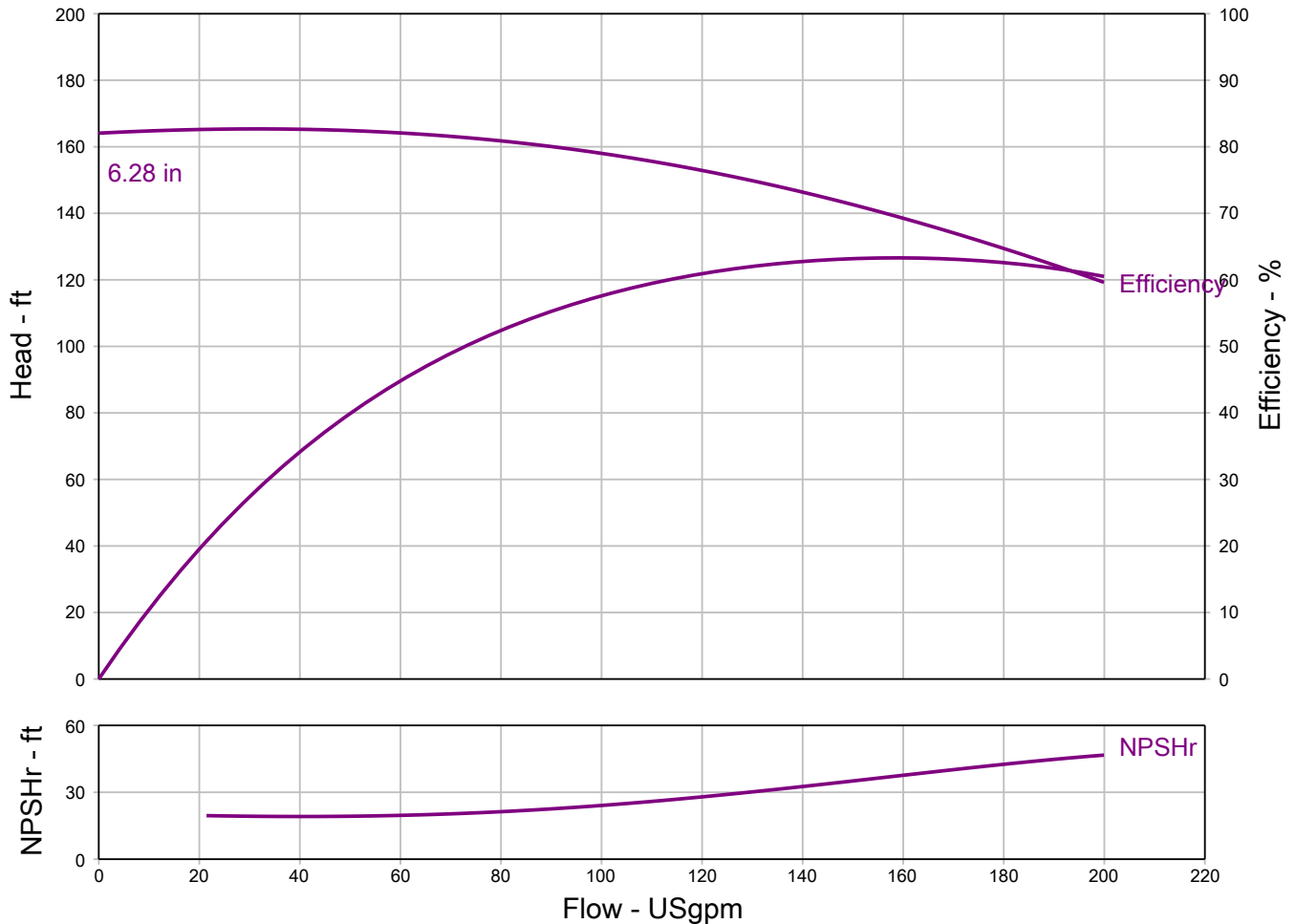
|                                  |                     |                   |
|----------------------------------|---------------------|-------------------|
| <b>QUOTE NUMBER / ID</b> 1471203 | <b>UNIT TAG</b> 001 | <b>QUANTITY</b> 1 |
| <b>REPRESENTATIVE</b>            | <b>SERVICE</b>      |                   |
| <b>ENGINEER</b>                  | <b>SUBMITTED BY</b> | <b>DATE</b>       |
| <b>CONTRACTOR</b>                | <b>APPROVED BY</b>  | <b>DATE</b>       |
|                                  | <b>ORDER #</b>      | <b>DATE</b>       |



**VL 15709**  
**3530 rpm**

Part Number N/A

| Conditions of Service |             | Pump Data         |         | Motor Data |           |
|-----------------------|-------------|-------------------|---------|------------|-----------|
| Flow                  | 158.7 USgpm | Impeller Diameter | 6.28 in | Motor HP   | 10 HP     |
| Head                  | 139.1 ft    | Max. Imp. Dia.    | 7.10 in | BHP        | 8.8 HP    |
| Liquid                | Cold Water  | Min. Imp. Dia.    | 4.00 in | Enclosure  | TEFC      |
| Temperature           | 68.00 deg F | Efficiency        | 63.3 %  | Voltage    | 230/460 V |
| NPSHr                 | 37.30 ft    | Suction           | 1.5 in. | Phase      | 3 Phase   |
| Viscosity             | 1.00 cP     | Discharge         | 1.5 in. | Cycle      | 60        |
| Specific Gravity      | 1.000 SG    | PEI (CL)          | 0.94    | Frame Size | 215JM     |
|                       |             | ER (CL)           | 6       |            |           |

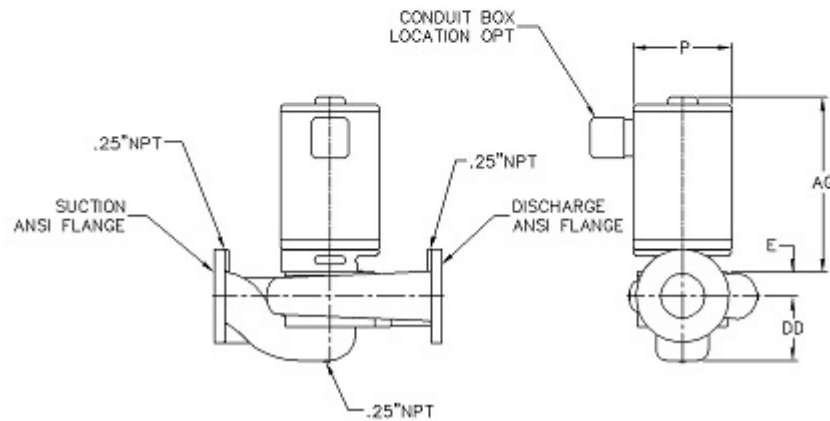
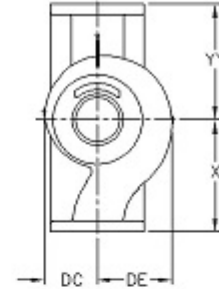


**Grundfos Series VL - In-Line Centrifugal Pump, Close Coupled**

Do not install pump larger than 215JM in vertical piping.

Pressure and drain tap locations are approximate.

Suction and discharge flanges, are cast per 250# ANSI thickness and diameter. All flanges are flat face. Some holes may be threaded because of nut clearances.



NOT FOR CONSTRUCTION, unless certified and referenced on order

| Units  | Frame | S x D     | AG (Max) | DC   | DD   | DE   | E    | P (Max) | X    | YY   | Weight |
|--------|-------|-----------|----------|------|------|------|------|---------|------|------|--------|
| inches | 215JM | 1.5 X 1.5 | 22.00    | 4.38 | 4.43 | 5.13 | 2.19 | 12.00   | 7.00 | 7.00 | TBD    |