

## Pump Performance Datasheet

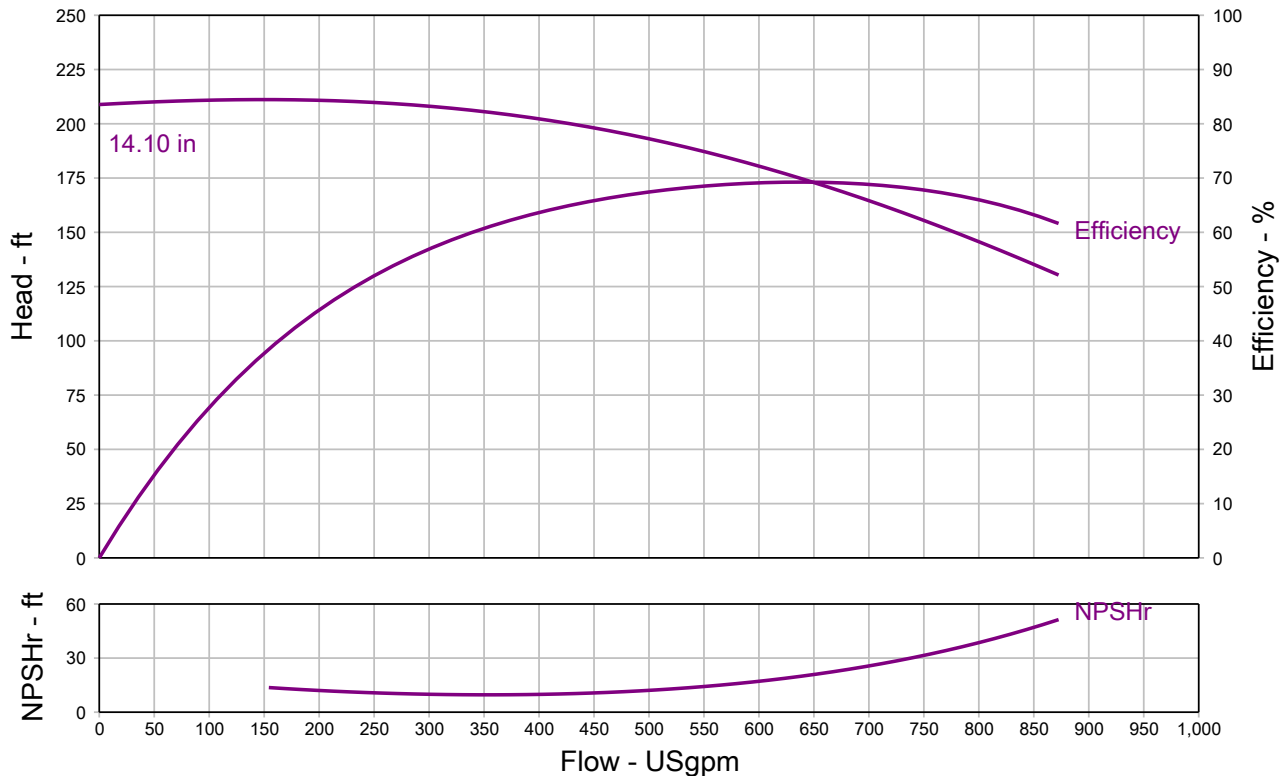
Customer :	Quote Number / ID :	1471203
Customer ref. / PO :	Model :	40159 VL
Tag Number : 001	Stages :	1
Service :	Based on curve number :	VL_40159_4P Rev May22
Quantity : 1	Basic model number :	-
	Date last saved :	11/07/2023 4:28 PM

Operating Conditions		Liquid	
Flow, rated	: 637.4 USgpm	Liquid type	: Cold Water
Differential head / pressure, rated (requested)	: 174.9 ft	Additional liquid description	:
Differential head / pressure, rated (actual)	: 174.9 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	: 1780 rpm	Material selected	: Ductile iron
Impeller diameter, rated	: 14.10 in		
Impeller diameter, maximum	: 14.10 in		
Impeller diameter, minimum	: 12.00 in		
Efficiency	: 69.25 %		

Performance		Pressure Data	
NPSH required / margin required	: 19.85 / 0.00 ft	Maximum working pressure	: 91.38 psi.g
nq (imp. eye flow) / S (imp. eye flow)	: 18 / 92 Metric units	Maximum allowable working pressure	: 300.0 psi.g
MCSF	: 183.2 USgpm	Maximum allowable suction pressure	: 300.0 psi.g
Head, maximum, rated diameter	: 211.1 ft	Hydrostatic test pressure	: 450.0 psi.g
Head rise to shutoff	: 19.41 %		
Flow, best eff. point	: 637.4 USgpm		
Flow ratio, rated / BEP	: 100.00 %		
Diameter ratio (rated / max)	: 100.00 %		
Head ratio (rated dia / max dia)	: 100.00 %		
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)	: 1.00	Motor sizing specification	: Max power (non-overloading)
ER (CL)	: 0	Margin over specification	: 0.00 %
		Service factor	: 1.00
		Power, hydraulic	: 28.15 hp
		Rated power (based on duty point)	: 40.64 hp
		Max power (non-overloading)	: 46.58 hp
		Nameplate motor rating	: 50.00 hp / 37.29 kW



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

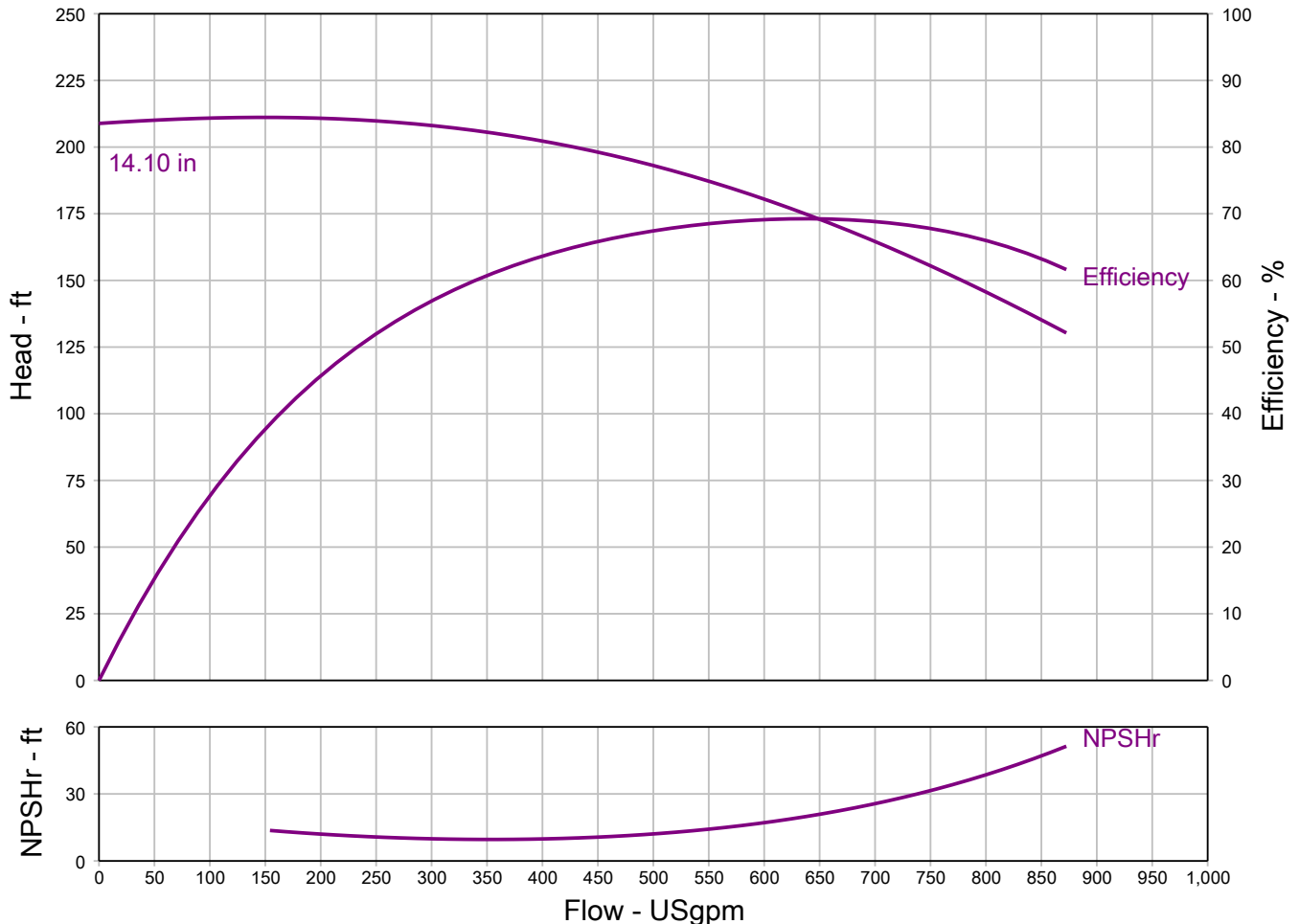
<b>QUOTE NUMBER / ID</b> 1471203	<b>UNIT TAG</b> 001	<b>QUANTITY</b> 1
<b>REPRESENTATIVE</b>	<b>SERVICE</b>	
<b>ENGINEER</b>	<b>SUBMITTED BY</b>	<b>DATE</b>
<b>CONTRACTOR</b>	<b>APPROVED BY</b>	<b>DATE</b>
	<b>ORDER #</b>	<b>DATE</b>



**VL 40159**  
**1780 rpm**

Part Number N/A

Conditions of Service		Pump Data		Motor Data	
Flow	637.4 USgpm	Impeller Diameter	14.10 in	Motor HP	50 HP
Head	174.9 ft	Max. Imp. Dia.	14.10 in	BHP	40.64 HP
Liquid	Cold Water	Min. Imp. Dia.	12.00 in	Enclosure	TEFC
Temperature	68.00 deg F	Efficiency	69.25 %	Voltage	230/460 V
NPSHr	19.85 ft	Suction	4 in.	Phase	3 Phase
Viscosity	1.00 cP	Discharge	4 in.	Cycle	60
Specific Gravity	1.000 SG	PEI (CL)	1	Frame Size	326JM
		ER (CL)	0		

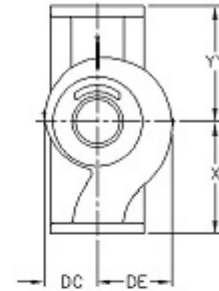


**Grundfos Series VL - In-Line Centrifugal Pump, Close Coupled**

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	326JM	4 X 4	30.00	9.25	9.73	11.22	1.69	17.00	17.00	17.00	TBD