



Company: Bonneville Power Administration

Name:

Date: 11/25/2006

Pump:

Size: 7HH (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 7HH
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 4.93 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: --- in
 Discharge: --- in
 Bowl size: 7.13 in
 Max lateral: 0.38 in
 Thrust K factor: 4.56 lb/ft

Search Criteria:

Flow: --- US gpm Head: --- ft

Fluid:

Water
 Density: 62.25 lb/ft³
 Viscosity: 1.105 cP
 NPSHa: --- ft
 Temperature: 60 °F
 Vapor pressure: 0.2563 psi a
 Atm pressure: 14.7 psi a

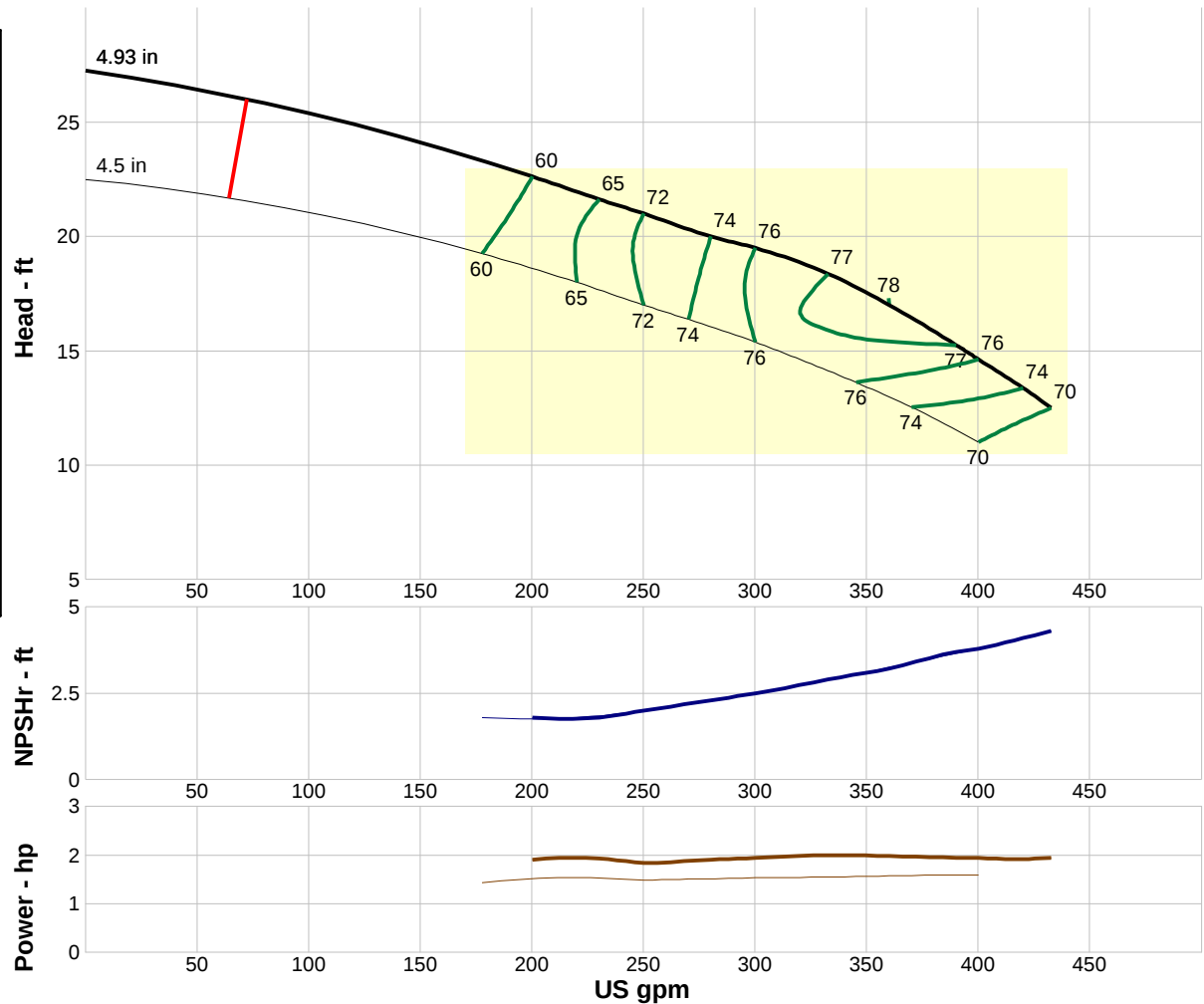
Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 --- hp
 Speed: ---
 Frame: ---

Pump Limits:

Temperature: 140 °F
 Pressure: 365 psi g
 Sphere size: 0.25 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	360 US gpm
Head:	17 ft
Eff:	78%
Power:	1.98 hp
NPSHr:	3.22 ft
---- Design Curve ----	
Shutoff head:	27.3 ft
Shutoff dP:	11.8 psi
Min flow:	72 US gpm
BEP:	78% @ 360 US gpm
NOL power:	2 hp @ 333 US gpm
-- Max Curve --	
Max power:	2 hp @ 333 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
415	1760	13.7	74.5	1.92	4.02
346	1760	17.7	77.5	1.99	3.06
277	1760	20.1	73.8	1.9	2.27
208	1760	22.4	61.3	1.91	1.8
138	1760	24.1	49.7	1.85	1.8