

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: H12P (1 stage)
 Type: AxialFlow
 Synch speed: 1160 rpm
 Curve: H12P
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1160 rpm
 Dia: 5 in
 Impeller:
 Ns: 1160
 Nss: ---
 Suction: --- in
 Discharge: --- in
 Bowl size: 15 in
 Max lateral: --- in
 Thrust K factor: ---

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

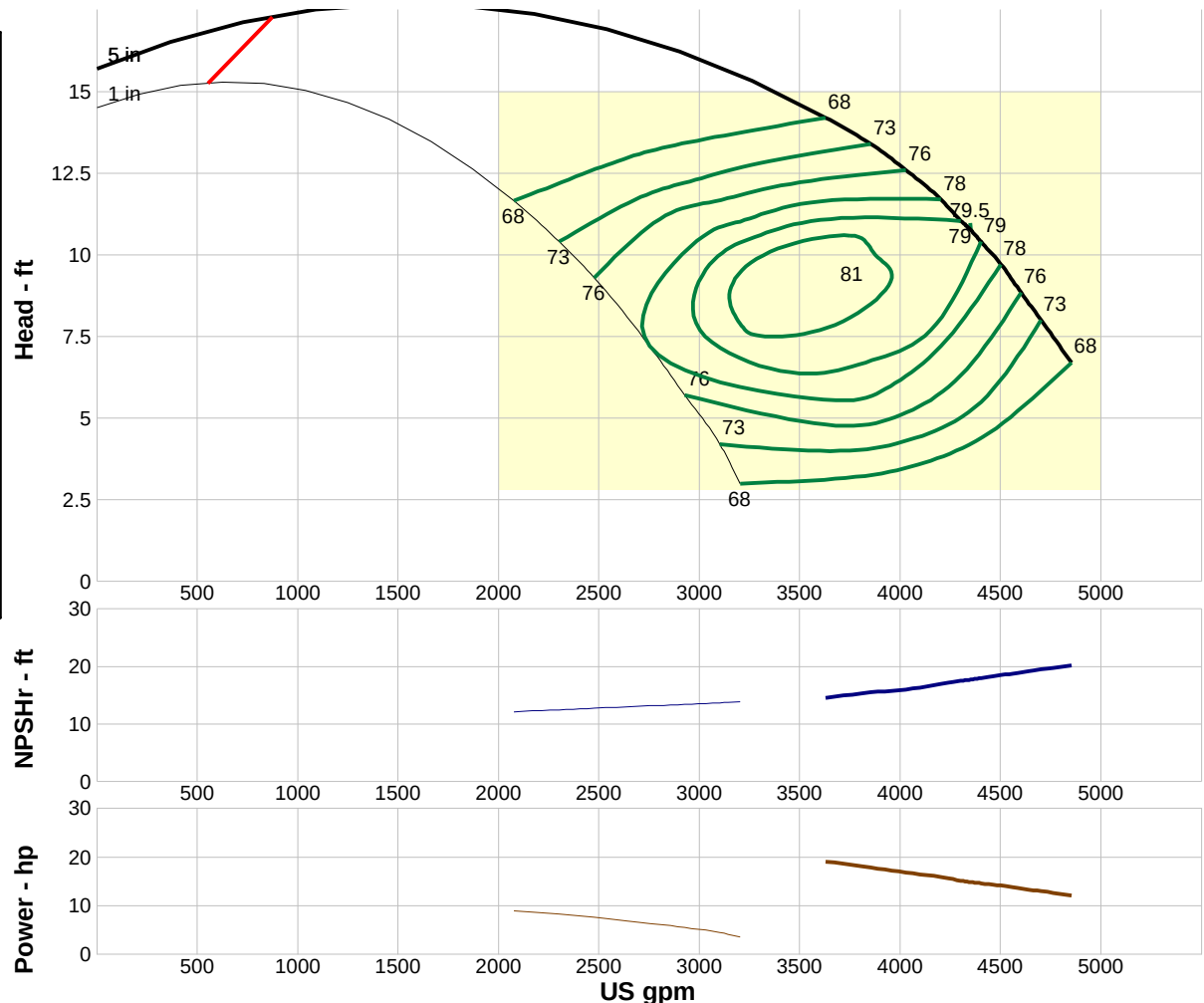
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 100 psi g
 Sphere size: 1.5 in
 Power: 100 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	4350 US gpm
Head:	10.8 ft
Eff:	79.5%
Power:	14.9 hp
NPSHr:	17.8 ft
---- Design Curve ----	
Shutoff head:	15.7 ft
Shutoff dP:	6.79 psi
Min flow:	870 US gpm
BEP:	79.5% @ 4350 US gpm
NOL power:	34.7 hp @ 870 US gpm
-- Max Curve --	
Max power:	34.7 hp @ 870 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
4656	1160	8.37	74.3	13.2	19.3
3880	1160	13.3	73.5	17.7	15.6
3104	1160	14.4	56.4	22.1	12.2
2328	1160	14.7	39.2	26.4	8.74
1552	1160	15.1	21.9	30.8	5.29