

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 18HH-1C (1 stage)
 Type: Vertical
 Synch speed: 1160 rpm
 Curve: 18HH-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1160 rpm
 Dia: 13 in
 Impeller:
 Ns: 1160
 Nss: ---
 Suction: 12 in
 Discharge: 12 in
 Bowl size: 18 in
 Max lateral: 0.469 in
 Thrust K factor: 35 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

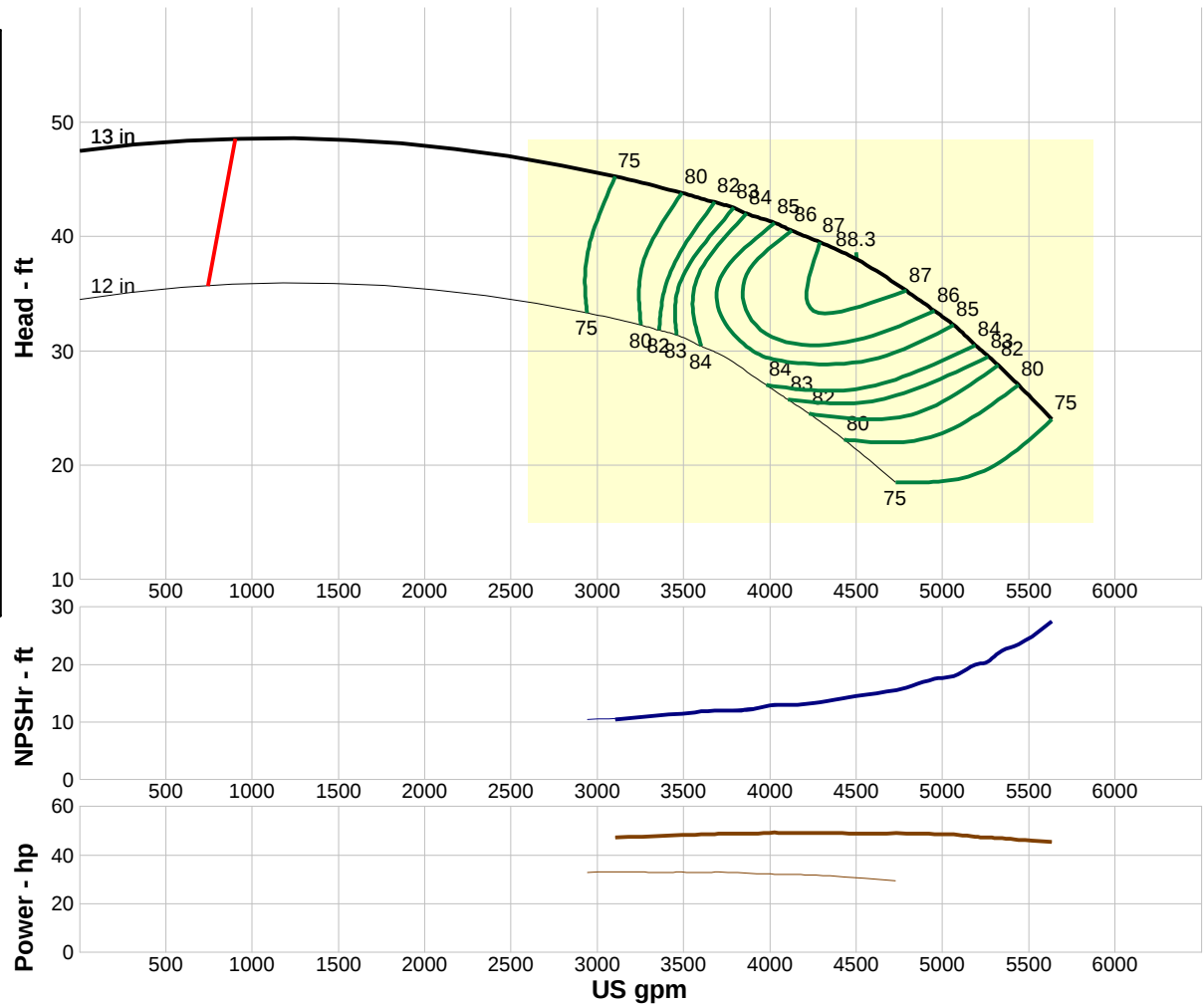
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 314 psi g
 Sphere size: 0.875 in
 Power: 1000 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	4500 US gpm
Head:	38 ft
Eff:	88.3%
Power:	48.9 hp
NPSHr:	14.5 ft
---- Design Curve ----	
Shutoff head:	47.5 ft
Shutoff dP:	20.5 psi
Min flow:	900 US gpm
BEP:	88.3% @ 4500 US gpm
NOL power:	49.3 hp @ 4025 US gpm
-- Max Curve --	
Max power:	49.3 hp @ 4025 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
5406	1160	27.5	80.5	46.5	23.1
4505	1160	38	88.3	48.9	14.5
3604	1160	43.3	81.2	48.5	11.8
2703	1160	45.5	69.9	46.2	9.48
1802	1160	46.2	58.3	43.9	7.15