

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 18HH-1C (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 18HH-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 13 in
 Impeller:
 Ns: 1760
 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

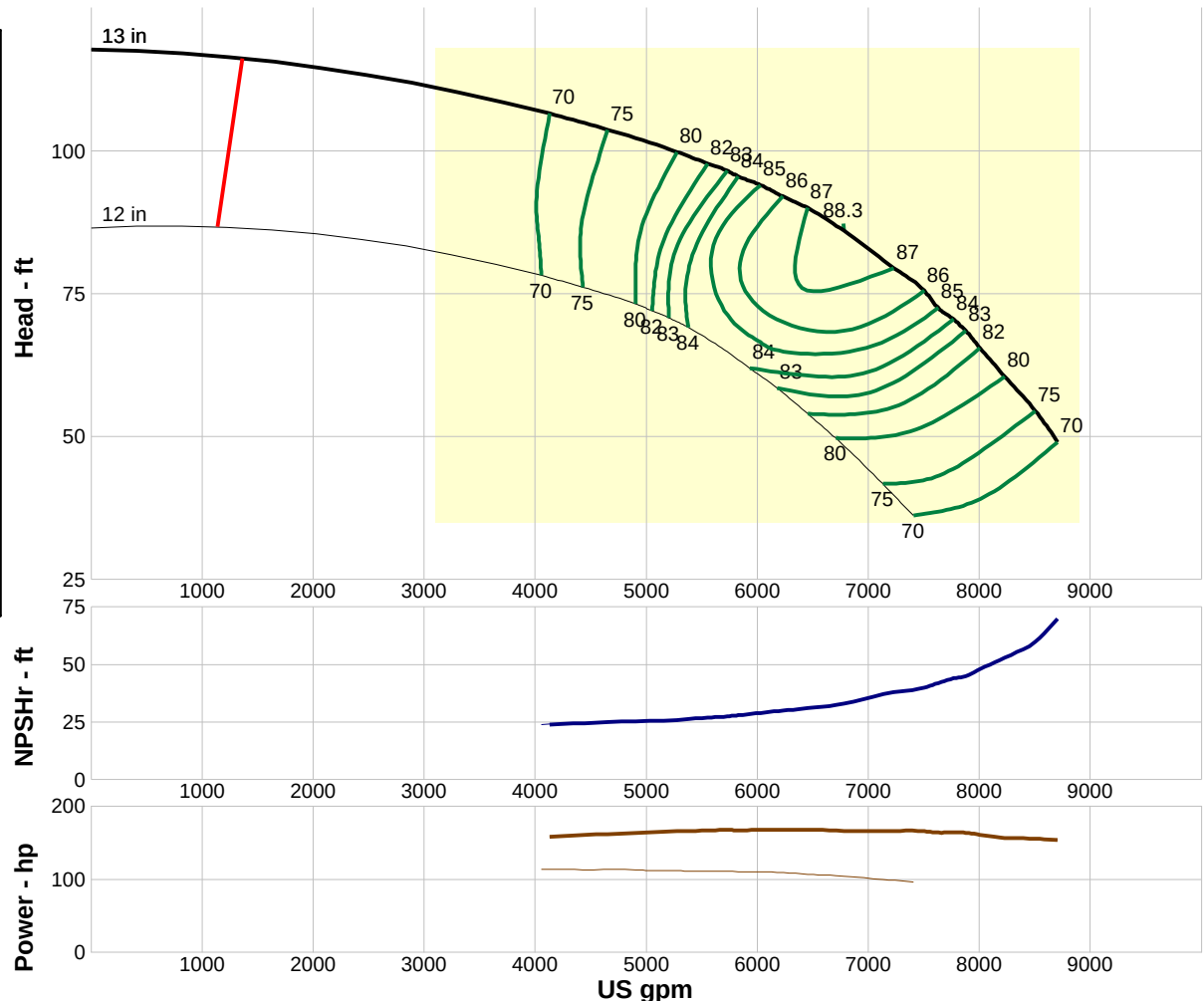
Motor:

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:	6775 US gpm
Head:	86 ft
Eff:	88.3%
Power:	167 hp
NPSHr:	33 ft
---- Design Curve ----	
Shutoff head:	118 ft
Shutoff dP:	50.9 psi
Min flow:	1355 US gpm
BEP:	88.3% @ 6775 US gpm
NOL power:	168 hp @ 6450 US gpm
-- Max Curve --	
Max power:	168 hp @ 6450 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
8352	1760	57.7	77.7	157	56.2
6960	1760	83.3	87.8	167	35.1
5568	1760	97.6	82.1	167	27.1
4176	1760	106	70.5	159	24.1
2784	1760	110	57.2	149	21.4