

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 14HH-1C (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 14HH-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 9.8125 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 10 in
 Discharge: 10 in
 Bowl size: 14 in
 Max lateral: 0.375 in
 Thrust K factor: 20 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

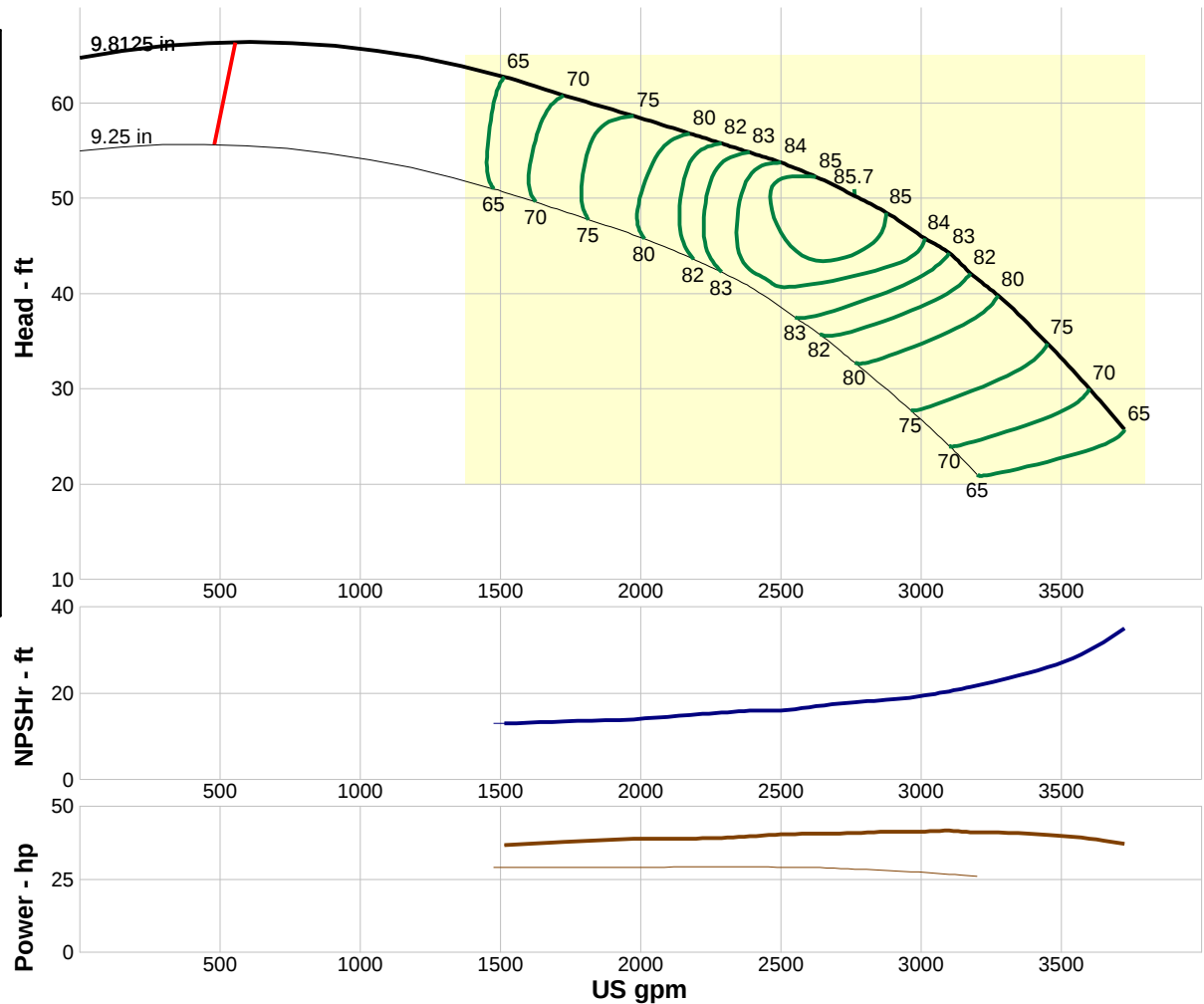
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 250 psi g
 Sphere size: 0.5 in
 Power: 450 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	2763 US gpm
Head:	50.2 ft
Eff:	85.7%
Power:	40.9 hp
NPSHr:	18 ft
---- Design Curve ----	
Shutoff head:	64.8 ft
Shutoff dP:	28 psi
Min flow:	553 US gpm
BEP:	85.7% @ 2763 US gpm
NOL power:	41.7 hp @ 3100 US gpm
-- Max Curve --	
Max power:	41.7 hp @ 3100 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
3576	1760	30.8	70.8	39.2	29.4
2980	1760	46.4	84.2	41.5	19.3
2384	1760	54.9	83	39.8	16
1788	1760	60.3	71.3	38.1	13.6
1192	1760	63.2	57.5	35.4	12.2