

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 14HXH (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 14HXH
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 11.813 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 10 in
 Discharge: 10 in
 Bowl size: 14 in
 Max lateral: 0.875 in
 Thrust K factor: 24.8 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

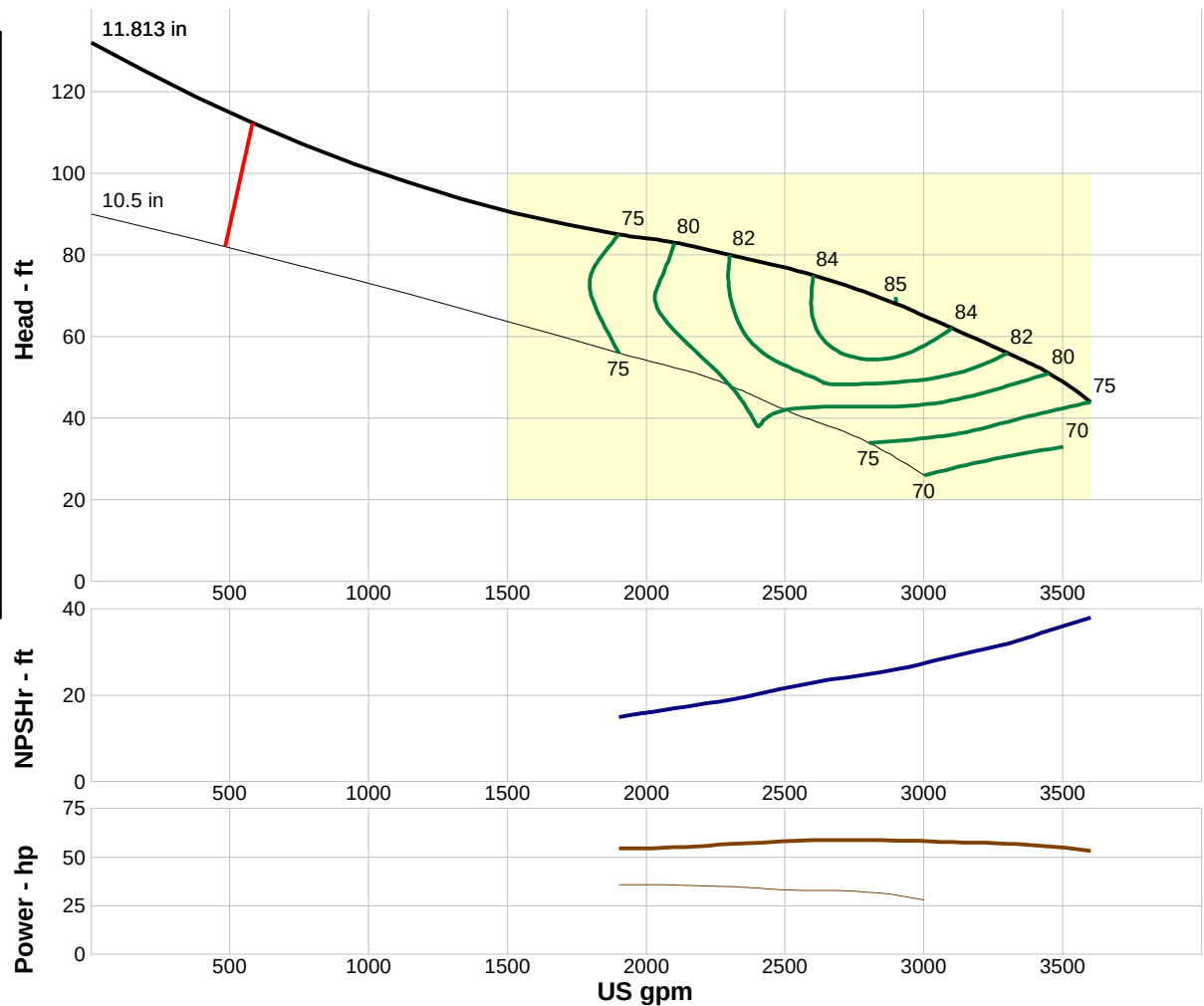
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 540 psi g
 Sphere size: 1.5 in
 Power: 450 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	2900 US gpm
Head:	68 ft
Eff:	85%
Power:	58.6 hp
NPSHr:	26 ft
---- Design Curve ----	
Shutoff head:	132 ft
Shutoff dP:	57.1 psi
Min flow:	580 US gpm
BEP:	85% @ 2900 US gpm
NOL power:	58.6 hp @ 2600 US gpm
-- Max Curve --	
Max power:	58.6 hp @ 2600 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
3456	1760	50.7	79.8	55.5	35.1
2880	1760	68.5	84.9	58.6	25.8
2304	1760	79.9	82	56.7	19.1
1728	1760	89.3	70.7	53.8	13.3
1152	1760	104	56.3	52	7.52