

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 12KC (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 12KC
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 9.325 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 8 in
 Discharge: 8 in
 Bowl size: 11.75 in
 Max lateral: 0.937 in
 Thrust K factor: 6.5 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

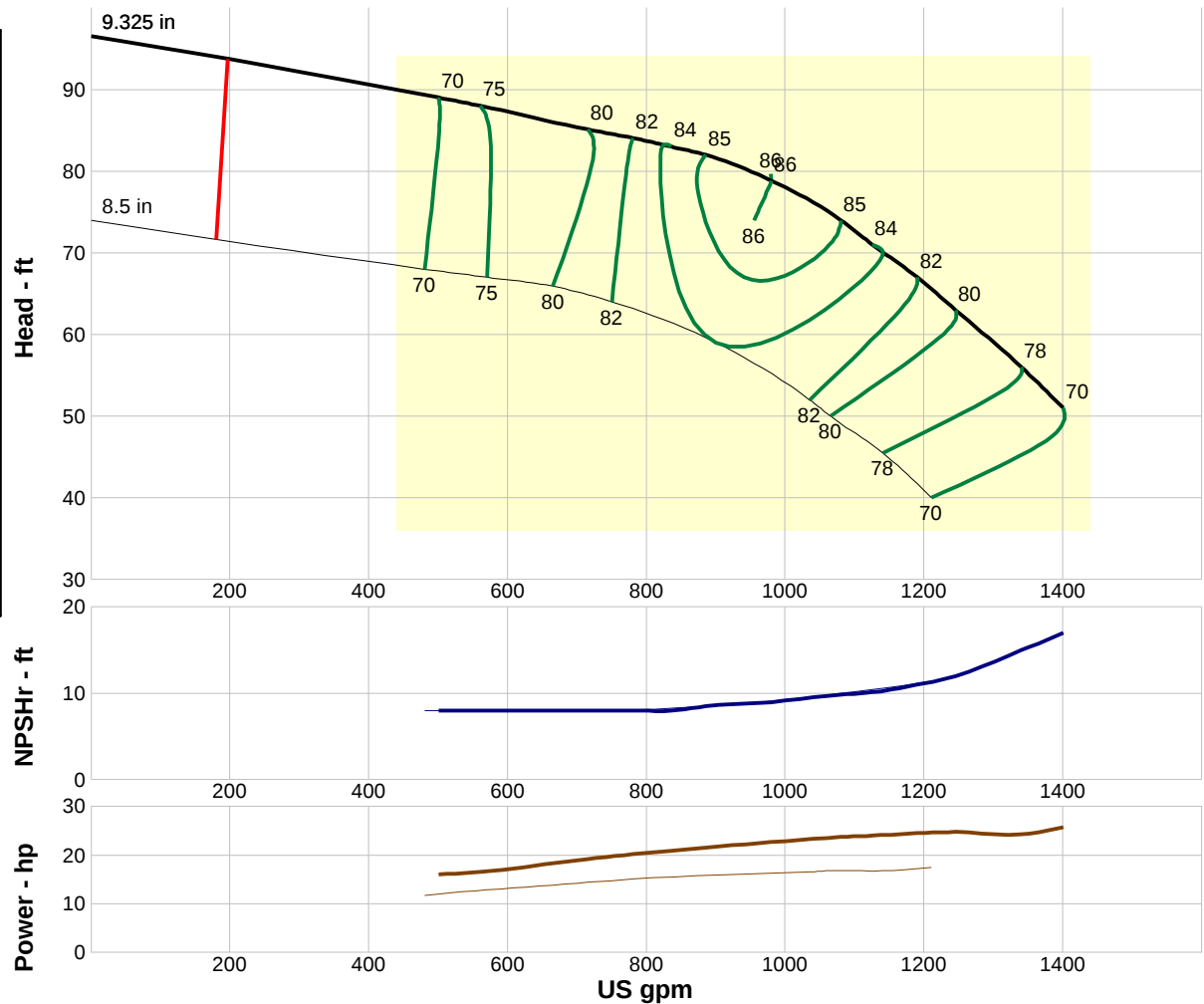
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 345 psi g
 Sphere size: 0.875 in
 Power: 300 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	980 US gpm
Head:	78.8 ft
Eff:	86%
Power:	22.7 hp
NPSHr:	9 ft
---- Design Curve ----	
Shutoff head:	96.5 ft
Shutoff dP:	41.7 psi
Min flow:	196 US gpm
BEP:	86% @ 980 US gpm
NOL power:	25.8 hp @ 1400 US gpm
-- Max Curve --	
Max power:	25.8 hp @ 1400 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1344	1760	55.7	77.5	24.4	15.1
1120	1760	71.3	84.1	24	10.1
896	1760	81.6	85.1	21.7	8.56
672	1760	85.9	78.6	18.5	8
448	1760	89.8	65.7	15.6	8