



Company: Bonneville Power Administration

Name:

Date: 11/25/2006

Pump:

Size: 12IC (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 12IC
 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 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

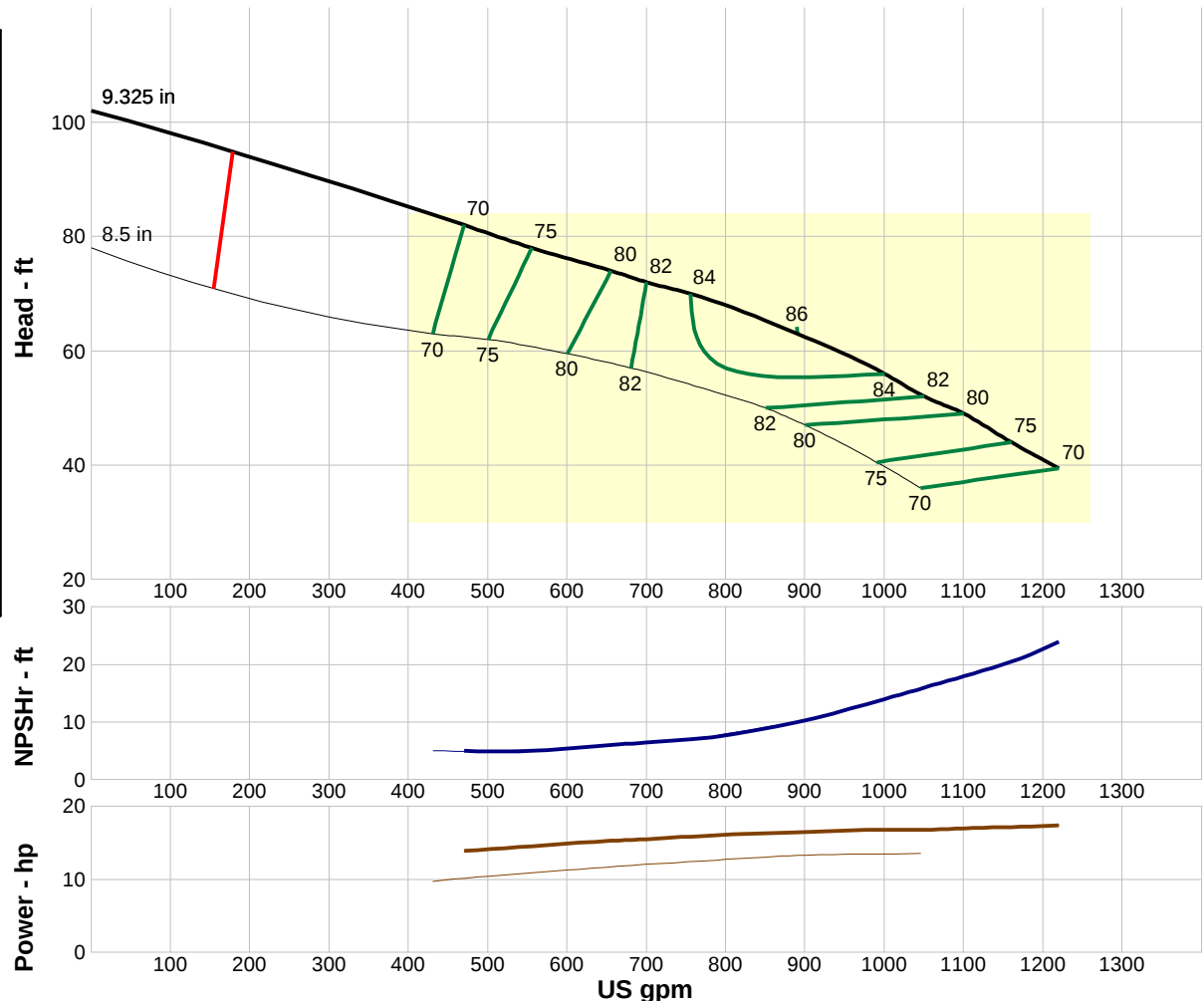
Motor:

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:	890 US gpm
Head:	63 ft
Eff:	86%
Power:	16.5 hp
NPSHr:	10 ft
---- Design Curve ----	
Shutoff head:	102 ft
Shutoff dP:	44.1 psi
Min flow:	178 US gpm
BEP:	86% @ 890 US gpm
NOL power:	17.4 hp @ 1220 US gpm
-- Max Curve --	
Max power:	17.4 hp @ 1220 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1171	1760	43.2	74.1	17.2	21.1
976	1760	57.5	84.4	16.8	13.1
781	1760	68.7	84.4	16	7.58
586	1760	76.8	76.5	14.8	5.31
390	1760	85.4	65.3	13.3	5