



Company: Bonneville Power Administration

Name:

Date: 11/25/2006

Pump:

Size: 12DC (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 12DC
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 9.325 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 11.625 in
 Max lateral: 0.812 in
 Thrust K factor: 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

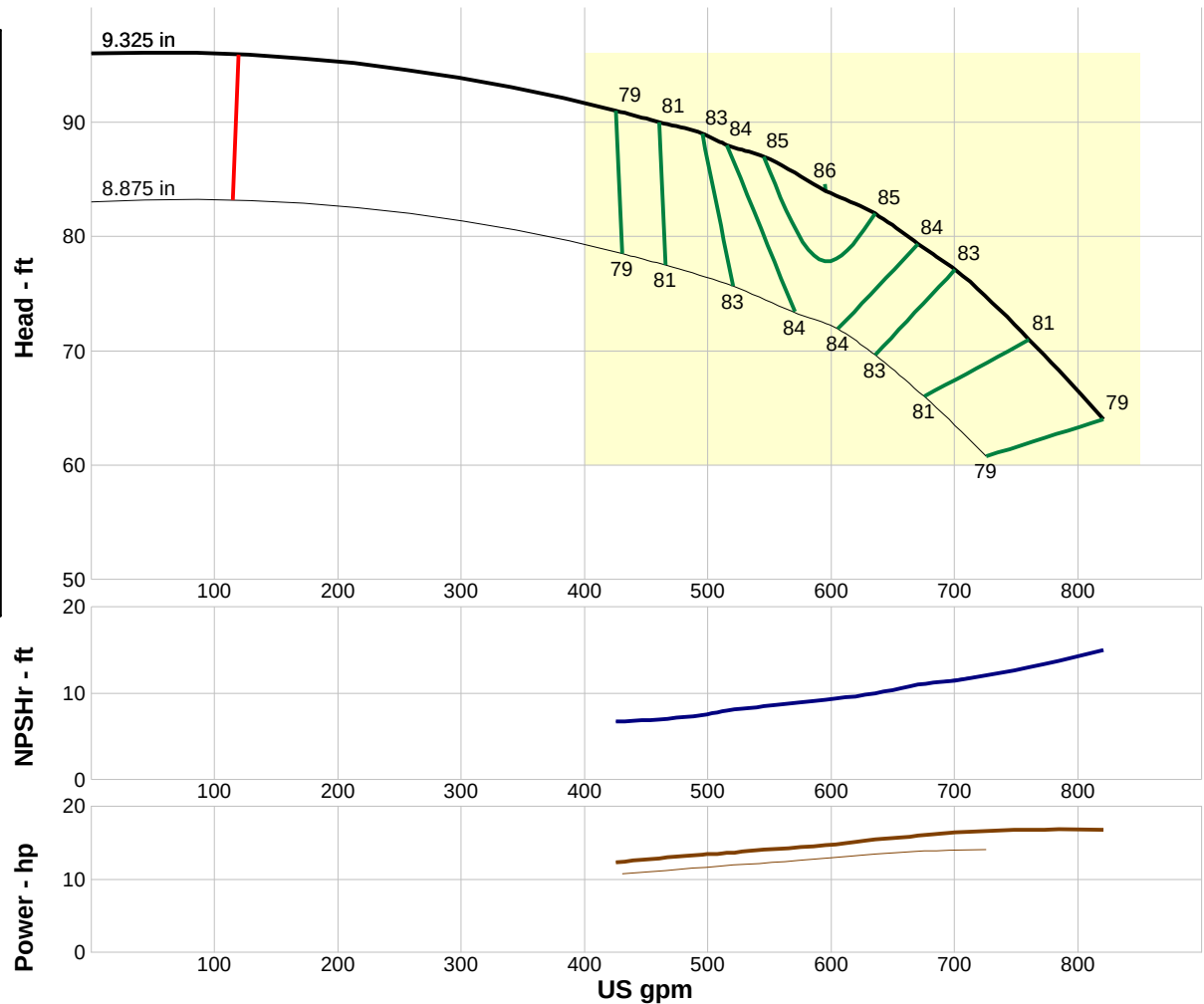
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 254 psi g
 Sphere size: 0.656 in
 Power: 250 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	595 US gpm
Head:	84 ft
Eff:	86%
Power:	14.7 hp
NPSHr:	9.25 ft
---- Design Curve ----	
Shutoff head:	96 ft
Shutoff dP:	41.5 psi
Min flow:	119 US gpm
BEP:	86% @ 595 US gpm
NOL power:	16.8 hp @ 760 US gpm
-- Max Curve --	
Max power:	16.8 hp @ 760 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
787	1760	67.9	80.1	16.8	13.9
656	1760	80.4	84.4	15.8	10.6
525	1760	87.7	84.3	13.8	8.17
394	1760	91.4	77.2	11.9	6.53
262	1760	92.9	69.7	9.83	5.59