

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

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

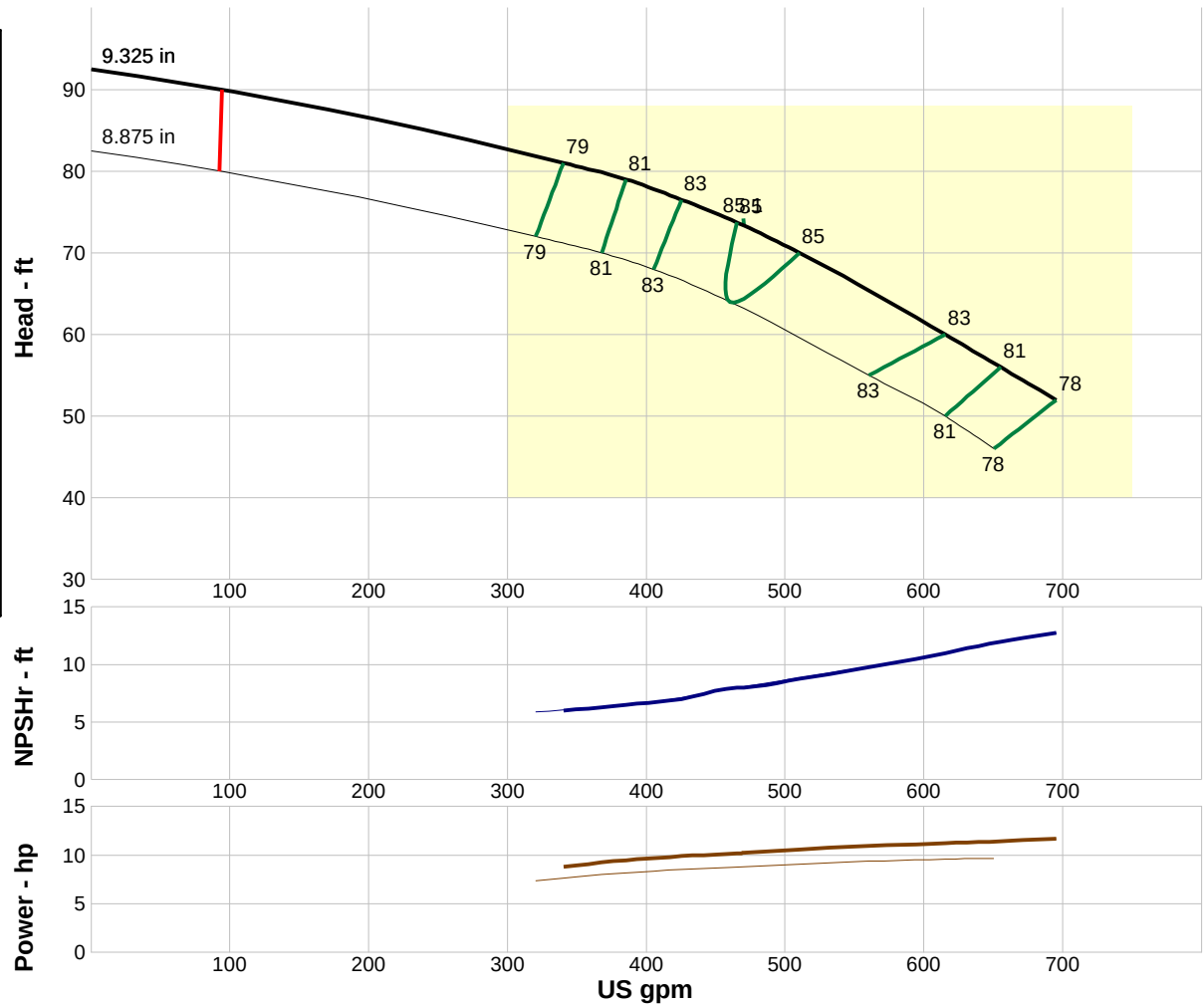
Motor:

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:	470 US gpm
Head:	73.3 ft
Eff:	85.1%
Power:	10.2 hp
NPSHr:	8.01 ft
---- Design Curve ----	
Shutoff head:	92.5 ft
Shutoff dP:	40 psi
Min flow:	94 US gpm
BEP:	85.1% @ 470 US gpm
NOL power:	11.7 hp @ 695 US gpm
-- Max Curve --	
Max power:	11.7 hp @ 695 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
667	1760	54.8	80.1	11.5	12.2
556	1760	65.6	84.1	10.9	9.74
445	1760	75.1	84	10	7.5
334	1760	81.2	78.7	8.71	5.93
222	1760	85	73.8	7.02	4.69