

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 7MH (1 stage)
 Type: Submersible
 Synch speed: 3450 rpm
 Curve: 7MH
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 3450 rpm
 Dia: 5.25 in
 Impeller:
 Ns: 3450
 Nss: ---
 Suction: --- in
 Discharge: --- in
 Bowl size: 7.13 in
 Max lateral: 0.5 in
 Thrust K factor: 3.5 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

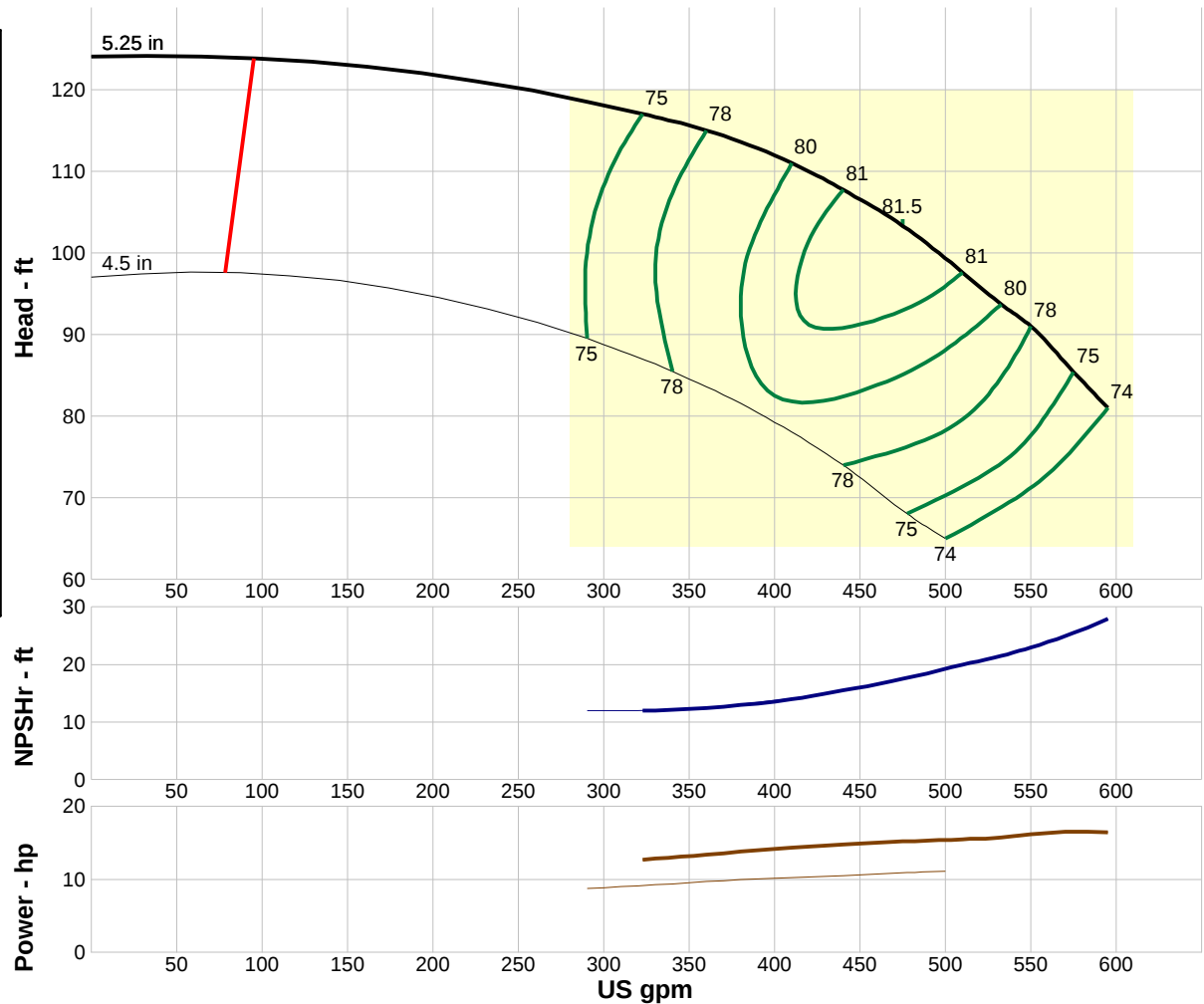
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 445 psi g
 Sphere size: 0.25 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	475 US gpm
Head:	103 ft
Eff:	81.5%
Power:	15.2 hp
NPSHr:	17.5 ft
---- Design Curve ----	
Shutoff head:	124 ft
Shutoff dP:	53.6 psi
Min flow:	95 US gpm
BEP:	81.5% @ 475 US gpm
NOL power:	16.5 hp @ 575 US gpm
-- Max Curve --	
Max power:	16.5 hp @ 575 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
571	3450	86.3	75.5	16.5	25.1
476	3450	103	81.5	15.2	17.6
381	3450	113	78.8	13.8	13.1
286	3450	118	72.1	12	11.5
190	3450	120	64.4	10.2	10.2