

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 7HL (1 stage)
 Type: Submersible
 Synch speed: 3450 rpm
 Curve: 7HL
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 3450 rpm
 Dia: 4.93 in
 Impeller:
 Ns: 3450
 Nss: ---
 Suction: --- in
 Discharge: --- in
 Bowl size: 7.13 in
 Max lateral: 0.38 in
 Thrust K factor: 4.5 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

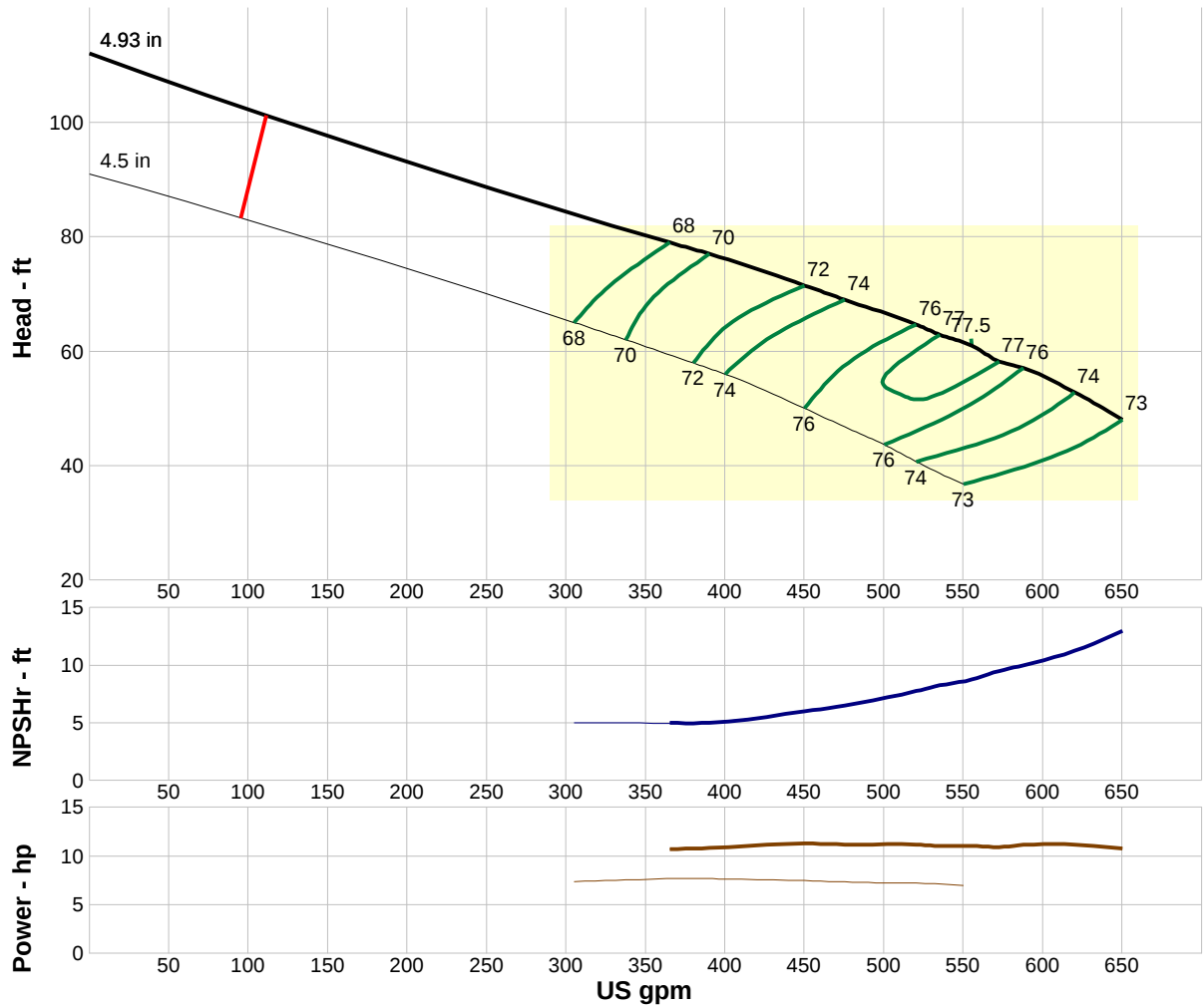
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 315 psi g
 Sphere size: 0.25 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	555 US gpm
Head:	61 ft
Eff:	77.5%
Power:	11 hp
NPSHr:	8.75 ft
---- Design Curve ----	
Shutoff head:	112 ft
Shutoff dP:	48.4 psi
Min flow:	111 US gpm
BEP:	77.5% @ 555 US gpm
NOL power:	11.3 hp @ 450 US gpm
-- Max Curve --	
Max power:	11.3 hp @ 450 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
624	3450	52.2	73.9	11.1	11.5
520	3450	64.7	76	11.2	7.75
416	3450	74.6	70.9	11	5.43
312	3450	83.8	63.8	10.4	5
208	3450	93.2	55.4	9.92	5