

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 8LC-1C (1 stage)
 Type: Vertical
 Synch speed: 3450 rpm
 Curve: 8LC-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 3450 rpm
 Dia: 5.9375 in
 Impeller:
 Ns: 3450
 Nss: ---
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 7.75 in
 Max lateral: 0.281 in
 Thrust K factor: 2.6 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

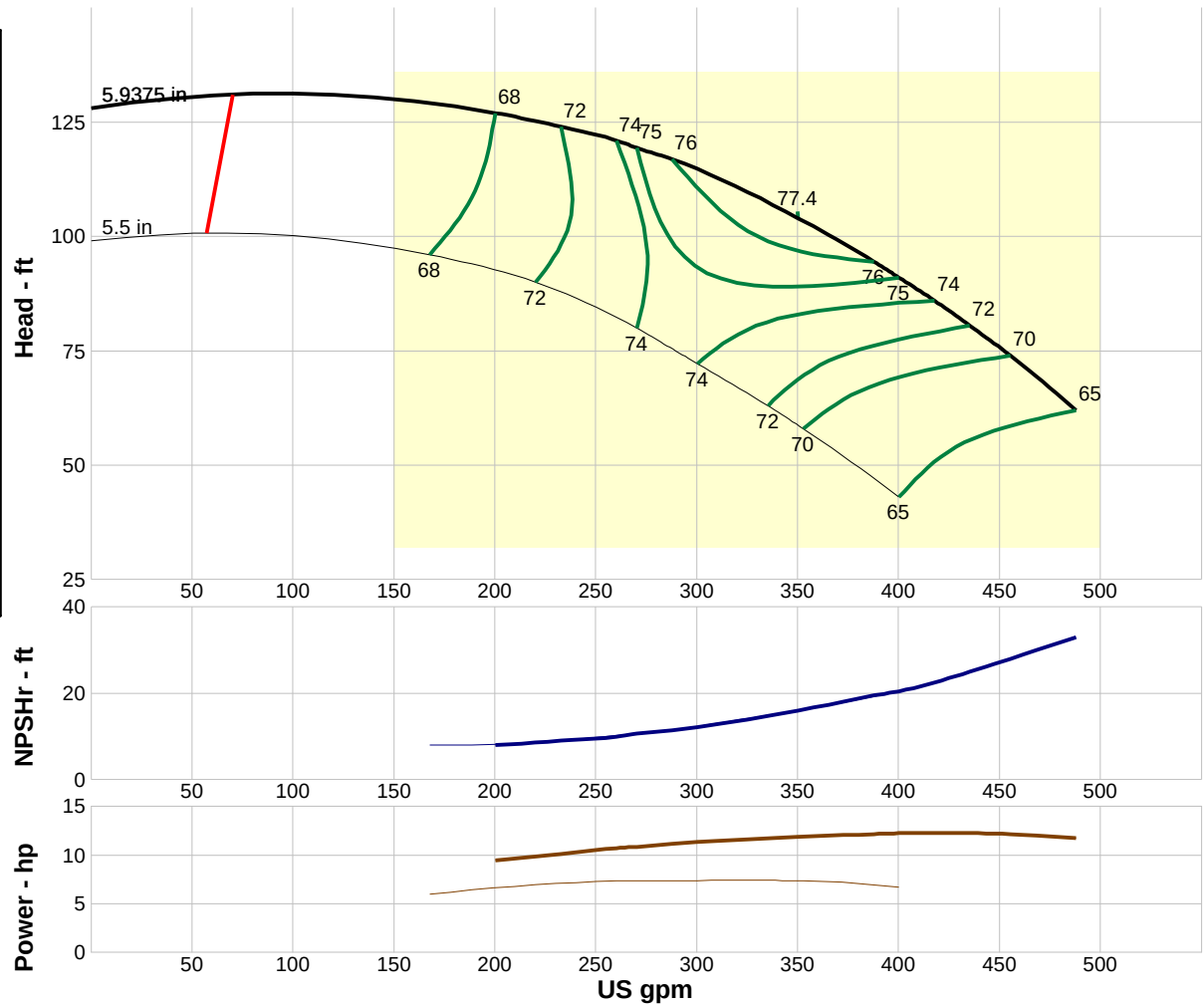
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 390 psi g
 Sphere size: 0.25 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	350 US gpm
Head:	104 ft
Eff:	77.4%
Power:	11.9 hp
NPSHr:	16 ft
---- Design Curve ----	
Shutoff head:	128 ft
Shutoff dP:	55.3 psi
Min flow:	70 US gpm
BEP:	77.4% @ 350 US gpm
NOL power:	12.3 hp @ 435 US gpm
-- Max Curve --	
Max power:	12.3 hp @ 435 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
468	3450	69.2	68	12	30
390	3450	93.8	75.8	12.2	19.7
312	3450	112	76.5	11.4	13.2
234	3450	124	72.1	10.1	9.05
156	3450	127	62.6	8.51	6.65