

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 8HL (1 stage)
 Type: Submersible
 Synch speed: 3450 rpm
 Curve: 8HH-1000
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 3450 rpm
 Dia: 6.5 in
 Impeller:
 Ns: 3450
 Nss: ---
 Suction: --- in
 Discharge: 6 in
 Bowl size: 8.187 in
 Max lateral: 0.5 in
 Thrust K factor: 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

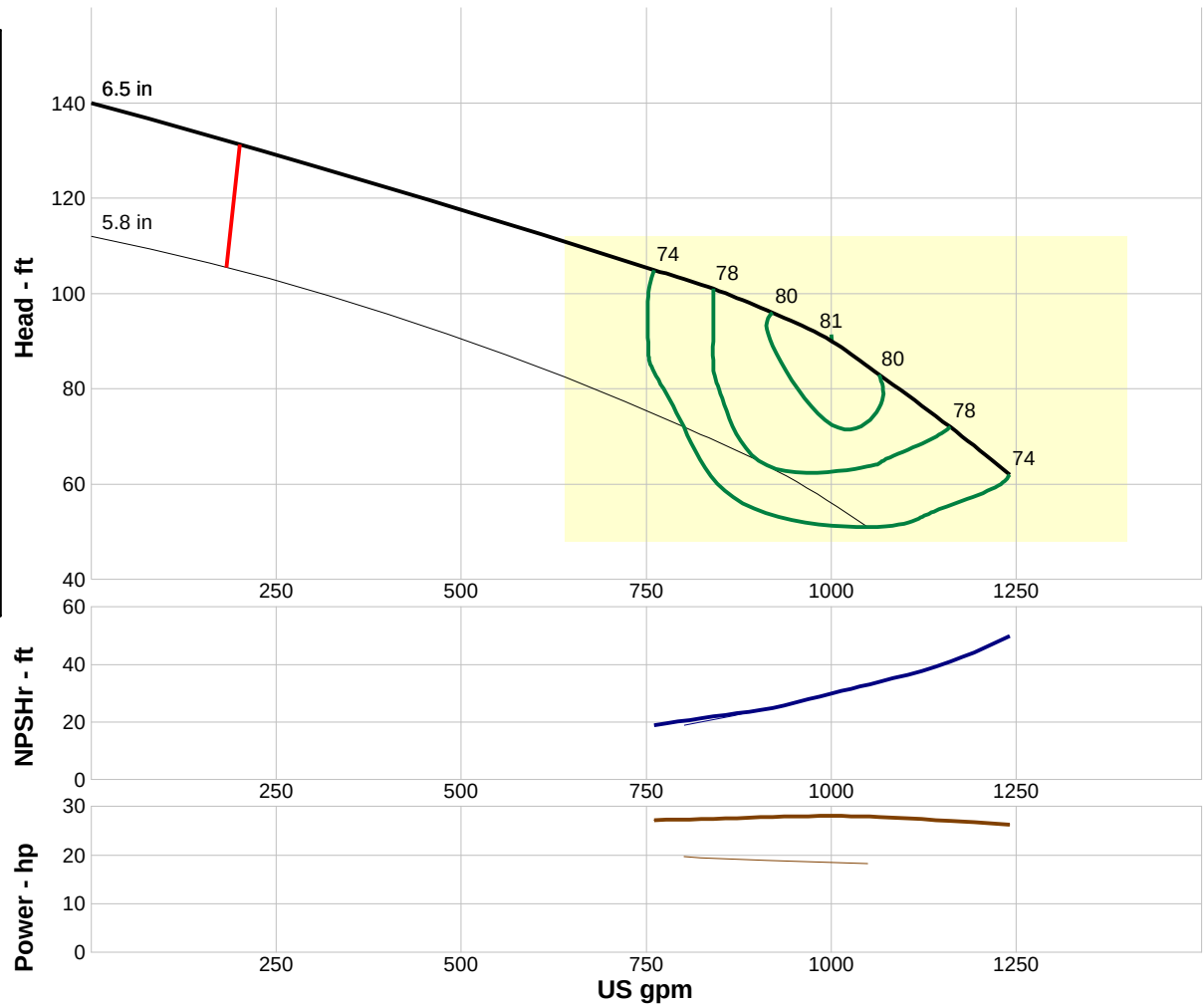
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 540 psi g
 Sphere size: 0.25 in
 Power: 200 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	1000 US gpm
Head:	90 ft
Eff:	81%
Power:	28.1 hp
NPSHr:	30 ft
---- Design Curve ----	
Shutoff head:	140 ft
Shutoff dP:	60.5 psi
Min flow:	200 US gpm
BEP:	81% @ 1000 US gpm
NOL power:	28.1 hp @ 1000 US gpm
-- Max Curve --	
Max power:	28.1 hp @ 1000 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1190	3450	68.3	76.5	26.7	44.4
992	3450	90.6	80.9	28	29.5
794	3450	103	75.7	27.3	20.3
595	3450	113	65.8	26.7	12.8
397	3450	122	55.9	26.2	5.39