

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 8LC-1C (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 8LC-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 5.9375 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 7.687 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

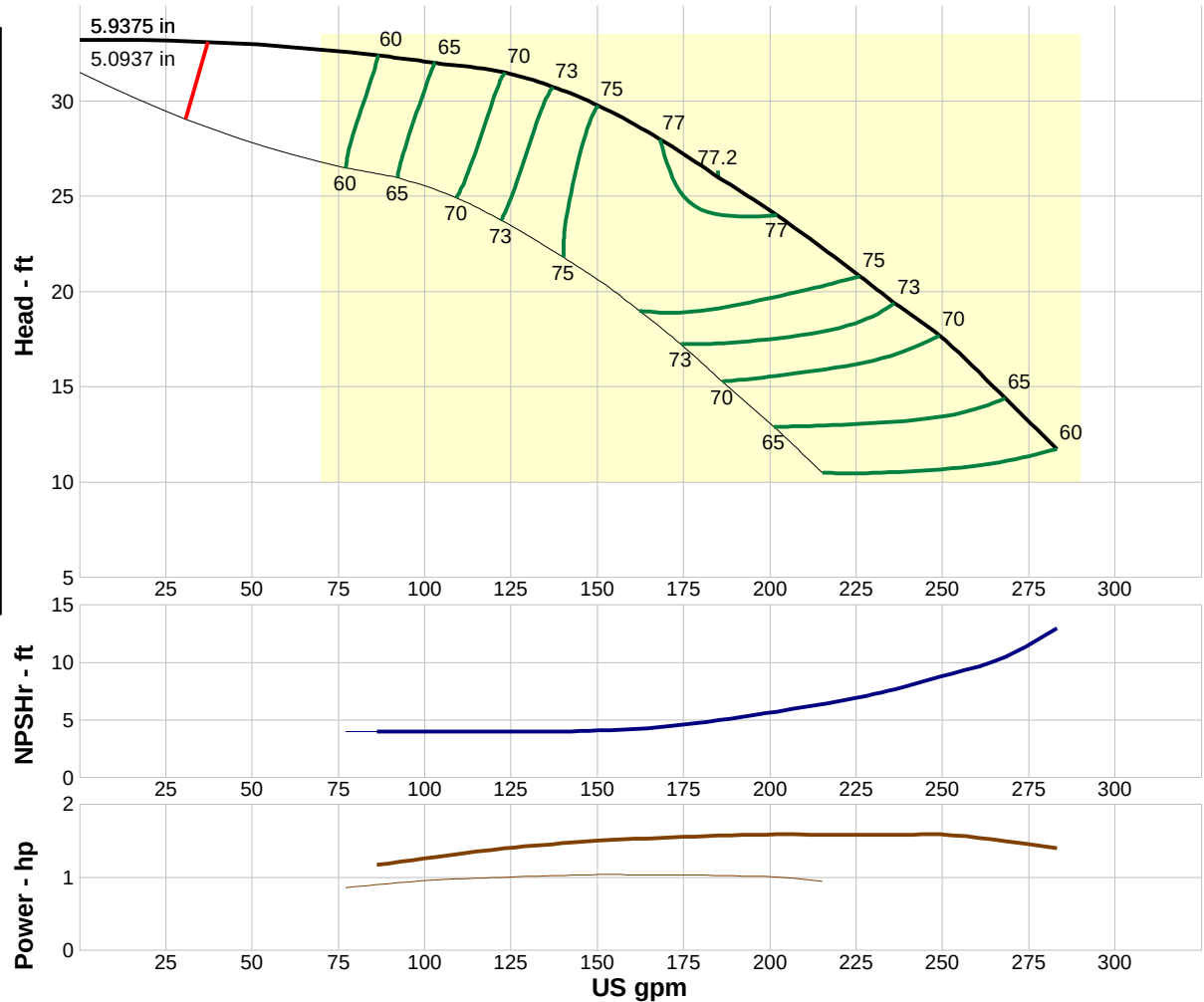
Motor:

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

Pump Limits:

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

---- Data Point ----	
Flow:	185 US gpm
Head:	26 ft
Eff:	77.2%
Power:	1.57 hp
NPSHr:	5 ft
---- Design Curve ----	
Shutoff head:	33.2 ft
Shutoff dP:	14.4 psi
Min flow:	37 US gpm
BEP:	77.2% @ 185 US gpm
NOL power:	1.59 hp @ 249 US gpm
-- Max Curve --	
Max power:	1.59 hp @ 249 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
271	1760	13.9	64	1.48	11
226	1760	20.8	75	1.58	7
181	1760	26.5	77.2	1.57	4.86
136	1760	30.8	72.8	1.45	4
90.4	1760	32.3	61.3	1.2	4