

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 7LL (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 7LL
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 5.4 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: --- in
 Discharge: --- in
 Bowl size: 7.13 in
 Max lateral: 0.5 in
 Thrust K factor: 2.63 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

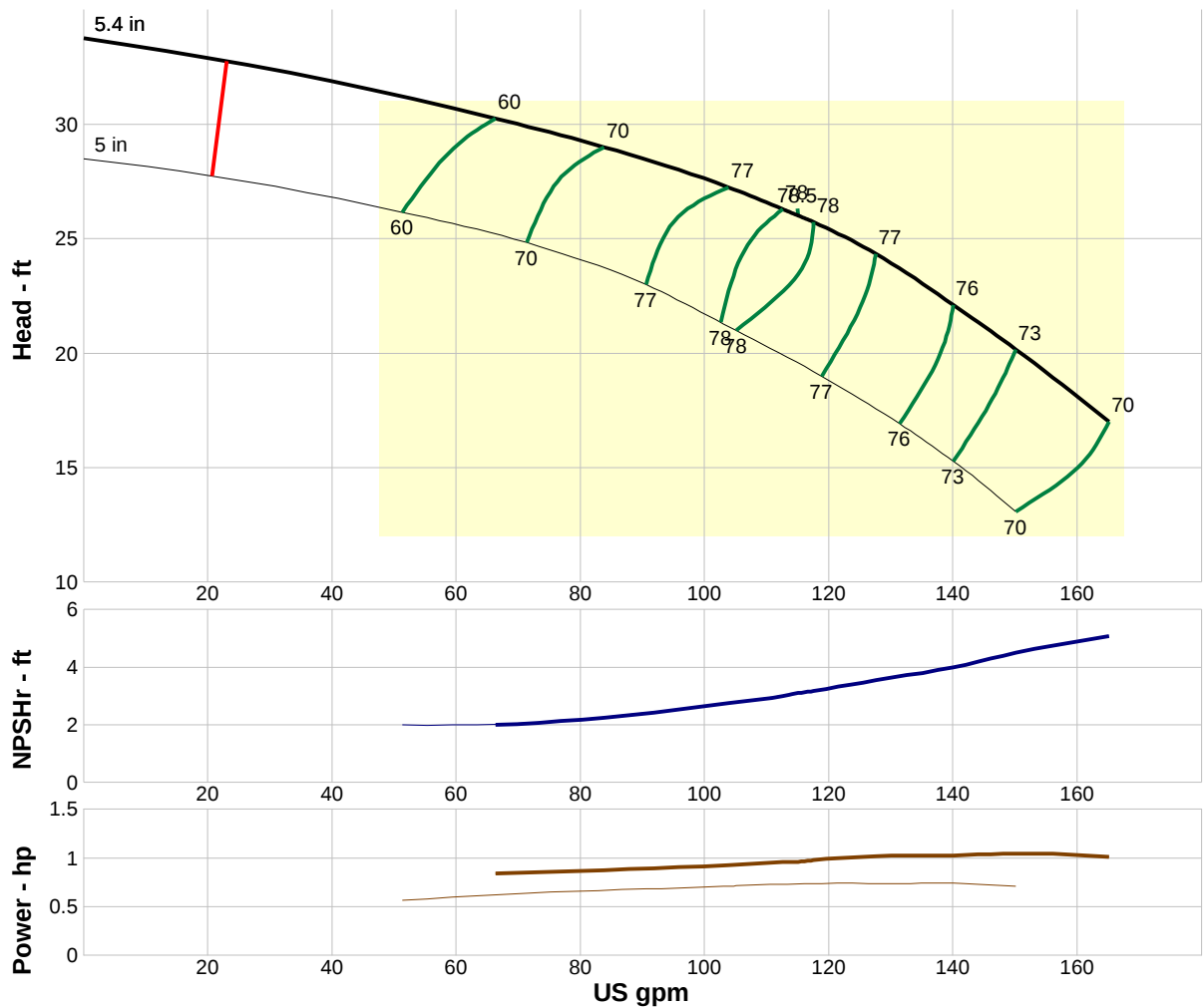
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 425 psi g
 Sphere size: 0.25 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	115 US gpm
Head:	26 ft
Eff:	78.5%
Power:	0.962 hp
NPSHr:	3.1 ft
---- Design Curve ----	
Shutoff head:	33.8 ft
Shutoff dP:	14.6 psi
Min flow:	23 US gpm
BEP:	78.5% @ 115 US gpm
NOL power:	1.05 hp @ 150 US gpm
-- Max Curve --	
Max power:	1.05 hp @ 150 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
158	1760	18.5	71.4	1.03	4.8
132	1760	23.5	76.6	1.02	3.71
106	1760	27	77.3	0.935	2.81
79.2	1760	29.3	67.4	0.868	2.18
52.8	1760	31	52.3	0.818	1.81