

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 10LC-1C (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 10LC-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 7.5 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 9.75 in
 Max lateral: 0.313 in
 Thrust K factor: 4.1 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

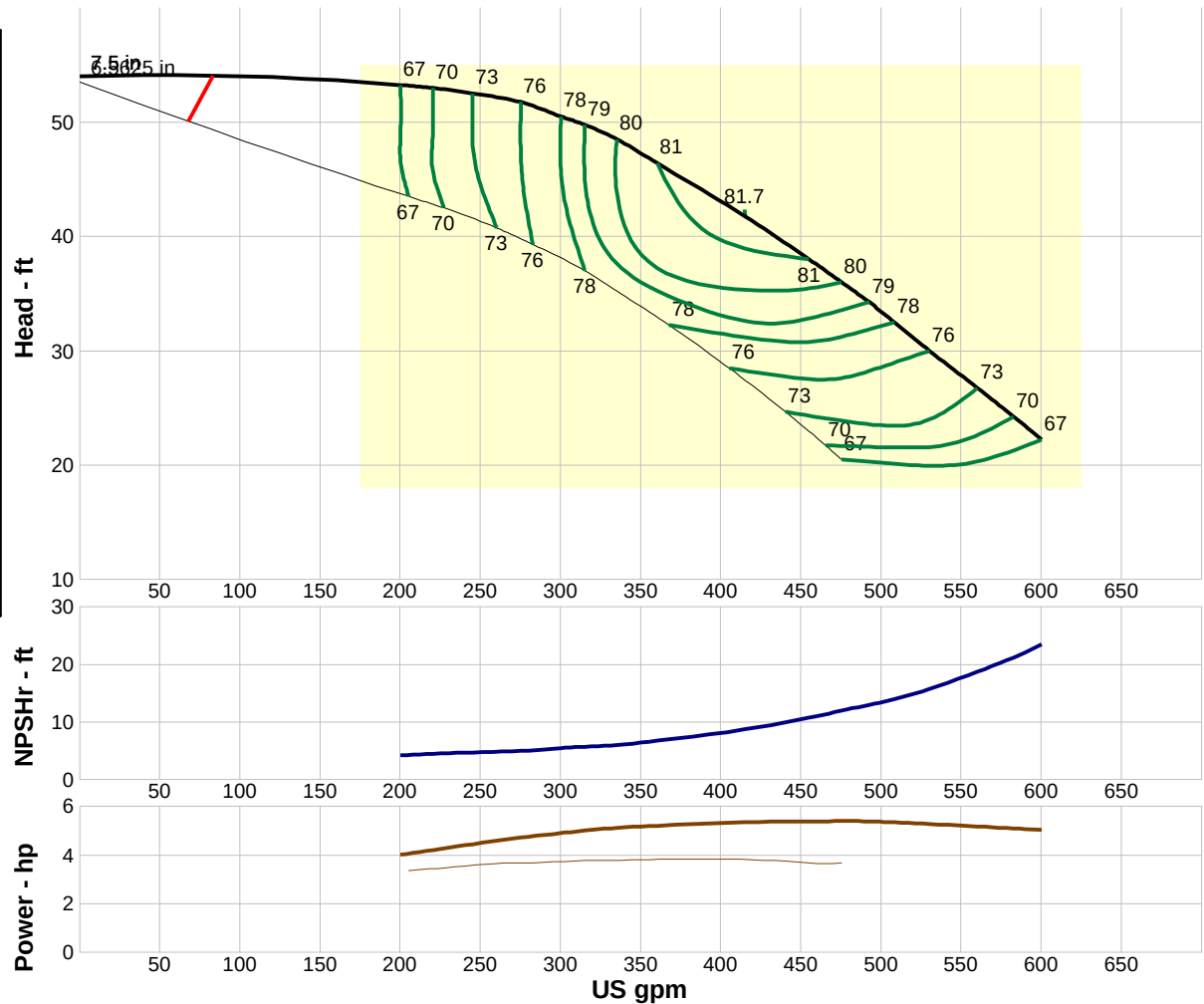
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 325 psi g
 Sphere size: 0.375 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	415 US gpm
Head:	41.8 ft
Eff:	81.7%
Power:	5.36 hp
NPSHr:	8.75 ft
---- Design Curve ----	
Shutoff head:	54 ft
Shutoff dP:	23.3 psi
Min flow:	83 US gpm
BEP:	81.7% @ 415 US gpm
NOL power:	5.4 hp @ 475 US gpm
-- Max Curve --	
Max power:	5.4 hp @ 475 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
576	1760	25	70.9	5.12	20.5
480	1760	35.5	79.7	5.4	12.3
384	1760	44.4	81.3	5.27	7.62
288	1760	51.1	77	4.82	5.26
192	1760	53.3	65.8	3.94	4.15