



Company: Bonneville Power Administration

Name:

Date: 11/25/2006

Pump:

Size: 10LC-1C (1 stage)
 Type: Vertical
 Synch speed: 3450 rpm
 Curve: 10LC-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 3450 rpm
 Dia: 7.5 in
 Impeller:
 Ns: 3450
 Nss: ---
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 9.9375 in
 Max lateral: 0.65 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

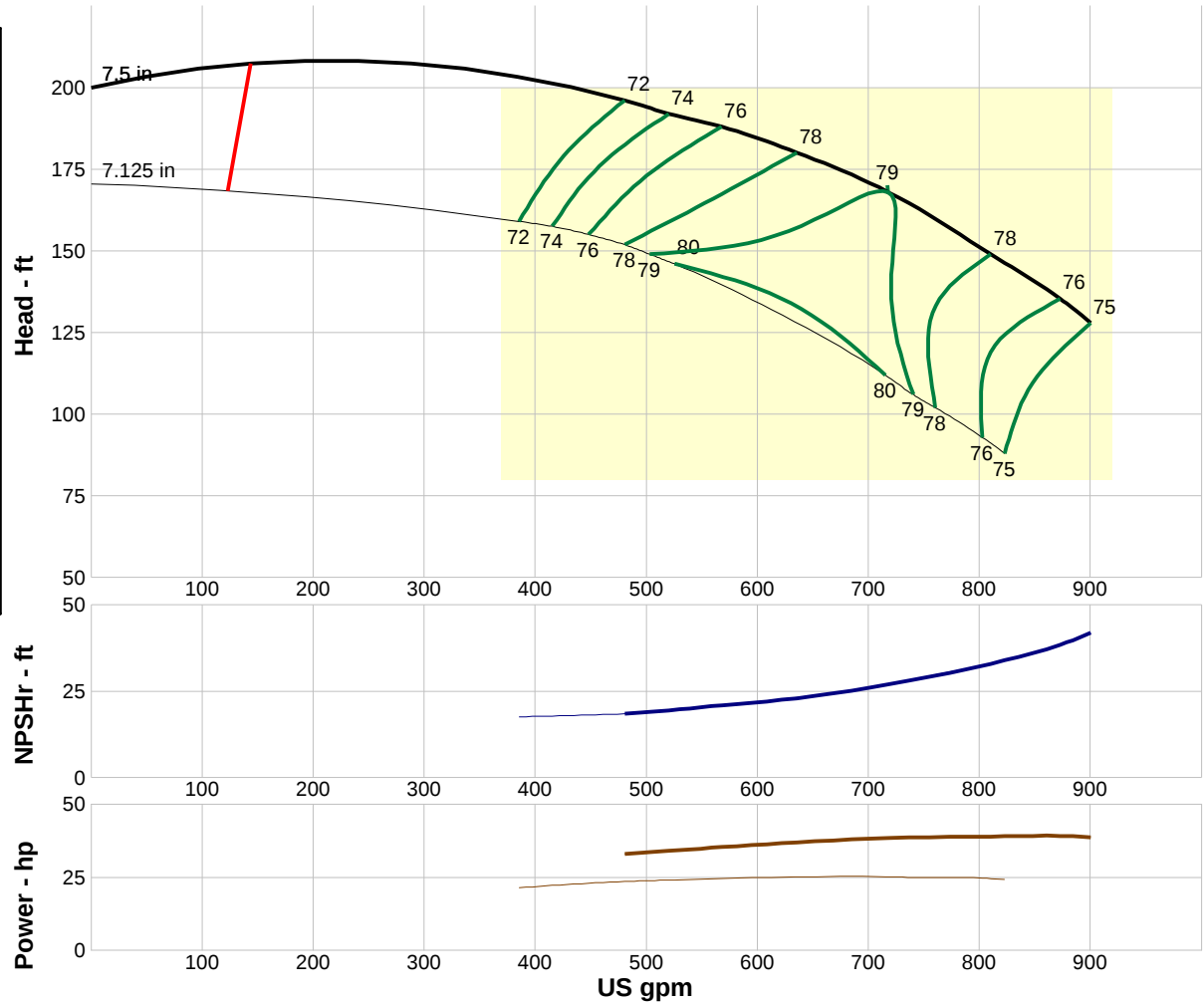
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 325 psi g
 Sphere size: 0.75 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	718 US gpm
Head:	168 ft
Eff:	79%
Power:	38.5 hp
NPSHr:	27 ft
---- Design Curve ----	
Shutoff head:	200 ft
Shutoff dP:	86.5 psi
Min flow:	144 US gpm
BEP:	79% @ 718 US gpm
NOL power:	39.2 hp @ 873 US gpm
-- Max Curve --	
Max power:	39.2 hp @ 873 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
864	3450	137	76.3	39.2	37.8
720	3450	167	79	38.5	27.2
576	3450	187	76.3	35.6	21.3
432	3450	196	69.6	31.7	17.3
288	3450	198	62.4	27.8	13.7