

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 14MC-1C (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 14MC-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 10.875 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 10 in
 Discharge: 10 in
 Bowl size: 14 in
 Max lateral: 0.625 in
 Thrust K factor: 10 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

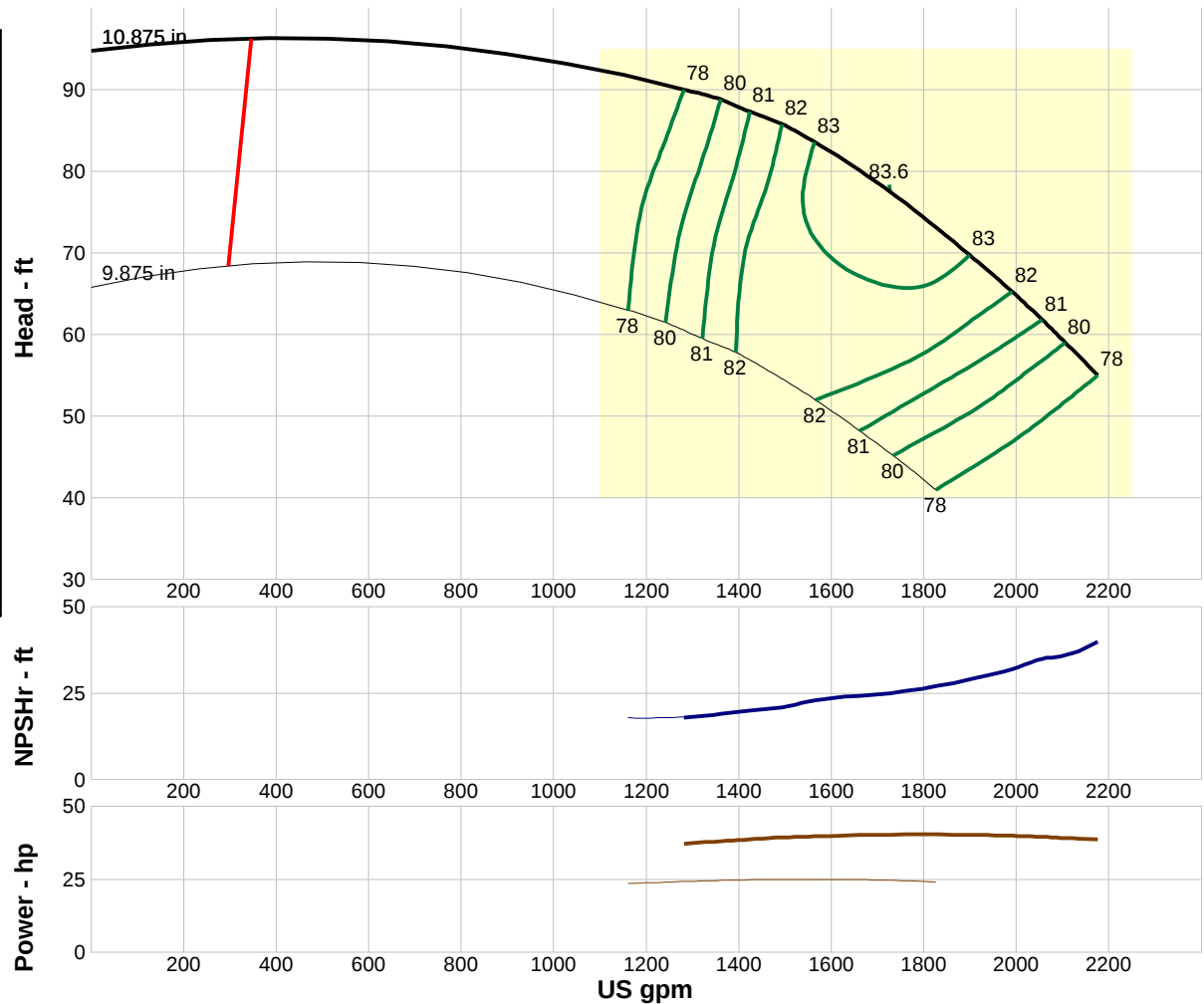
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 303 psi g
 Sphere size: 1 in
 Power: 450 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	1725 US gpm
Head:	77.5 ft
Eff:	83.6%
Power:	40.4 hp
NPSHr:	25 ft
---- Design Curve ----	
Shutoff head:	94.8 ft
Shutoff dP:	41 psi
Min flow:	345 US gpm
BEP:	83.6% @ 1725 US gpm
NOL power:	40.4 hp @ 1725 US gpm
-- Max Curve --	
Max power:	40.4 hp @ 1725 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
2088	1760	60	80.3	39.3	35.7
1740	1760	76.8	83.5	40.4	25.3
1392	1760	88	80.5	38.4	19.5
1044	1760	90.9	72.1	34.9	15.1
696	1760	92.2	63.4	31.4	10.7