

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 14MC-1C (1 stage)
 Type: Vertical
 Synch speed: 1160 rpm
 Curve: 14MC-1C
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1160 rpm
 Dia: 10.875 in
 Impeller:
 Ns: 1160
 Nss: ---
 Suction: 10 in
 Discharge: 10 in
 Bowl size: 14 in
 Max lateral: 1.03 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

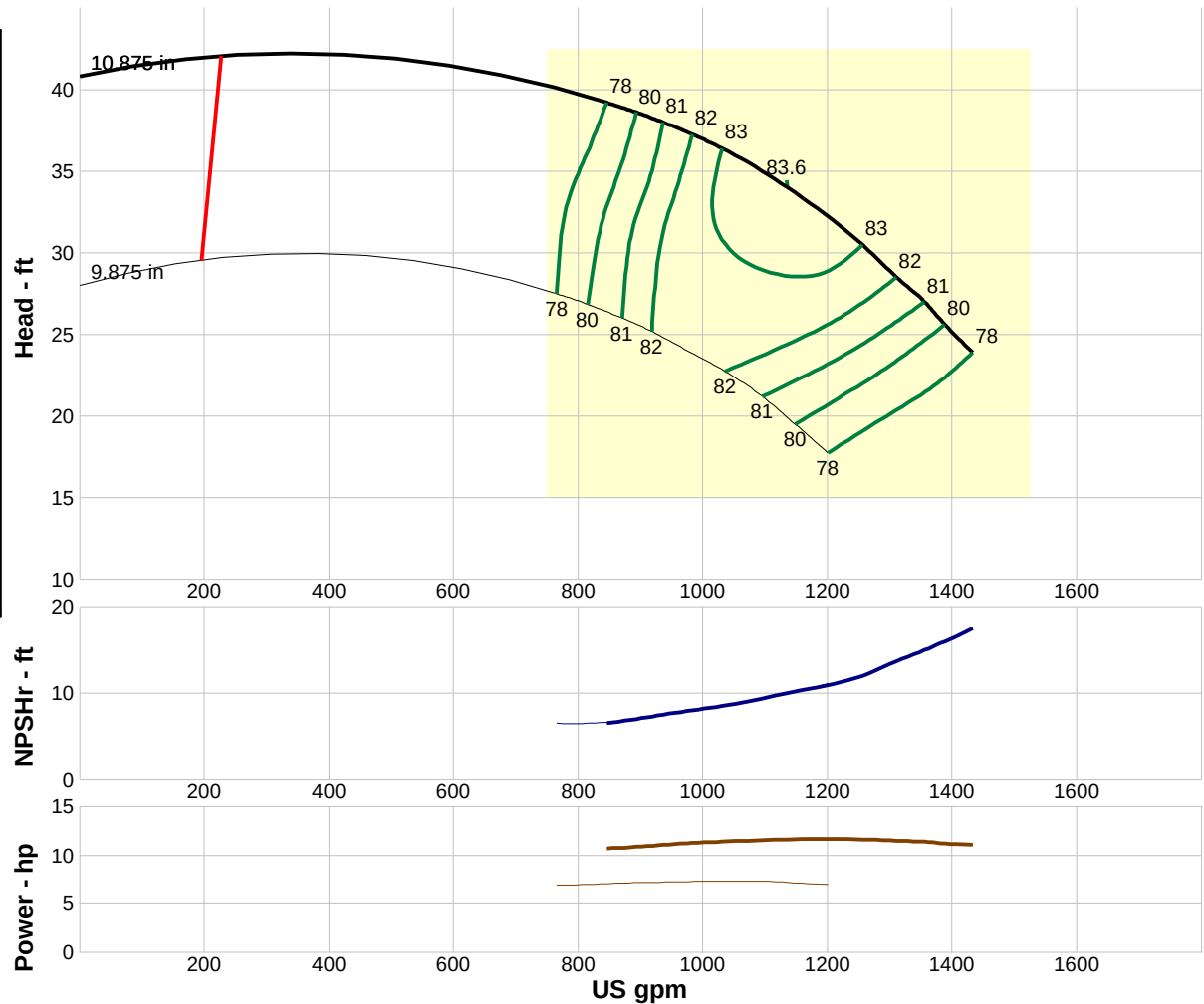
Motor:

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: 0.5 in
 Power: 450 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	1135 US gpm
Head:	34 ft
Eff:	83.6%
Power:	11.7 hp
NPSHr:	10 ft
---- Design Curve ----	
Shutoff head:	40.8 ft
Shutoff dP:	17.6 psi
Min flow:	227 US gpm
BEP:	83.6% @ 1135 US gpm
NOL power:	11.7 hp @ 1135 US gpm
-- Max Curve --	
Max power:	11.7 hp @ 1135 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1375	1160	26.1	80.4	11.3	15.6
1146	1160	33.7	83.5	11.7	10.2
917	1160	38.3	80.6	11	7.29
688	1160	39.5	71.4	10.2	4.85
458	1160	39.9	61.7	9.5	2.43