

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 10EC (1 stage)
 Type: Vertical
 Synch speed: 1760 rpm
 Curve: 10EC
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 7.703 in
 Impeller:
 Ns: 1760
 Nss: ---
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 9.5 in
 Max lateral: 0.75 in
 Thrust K factor: 4 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

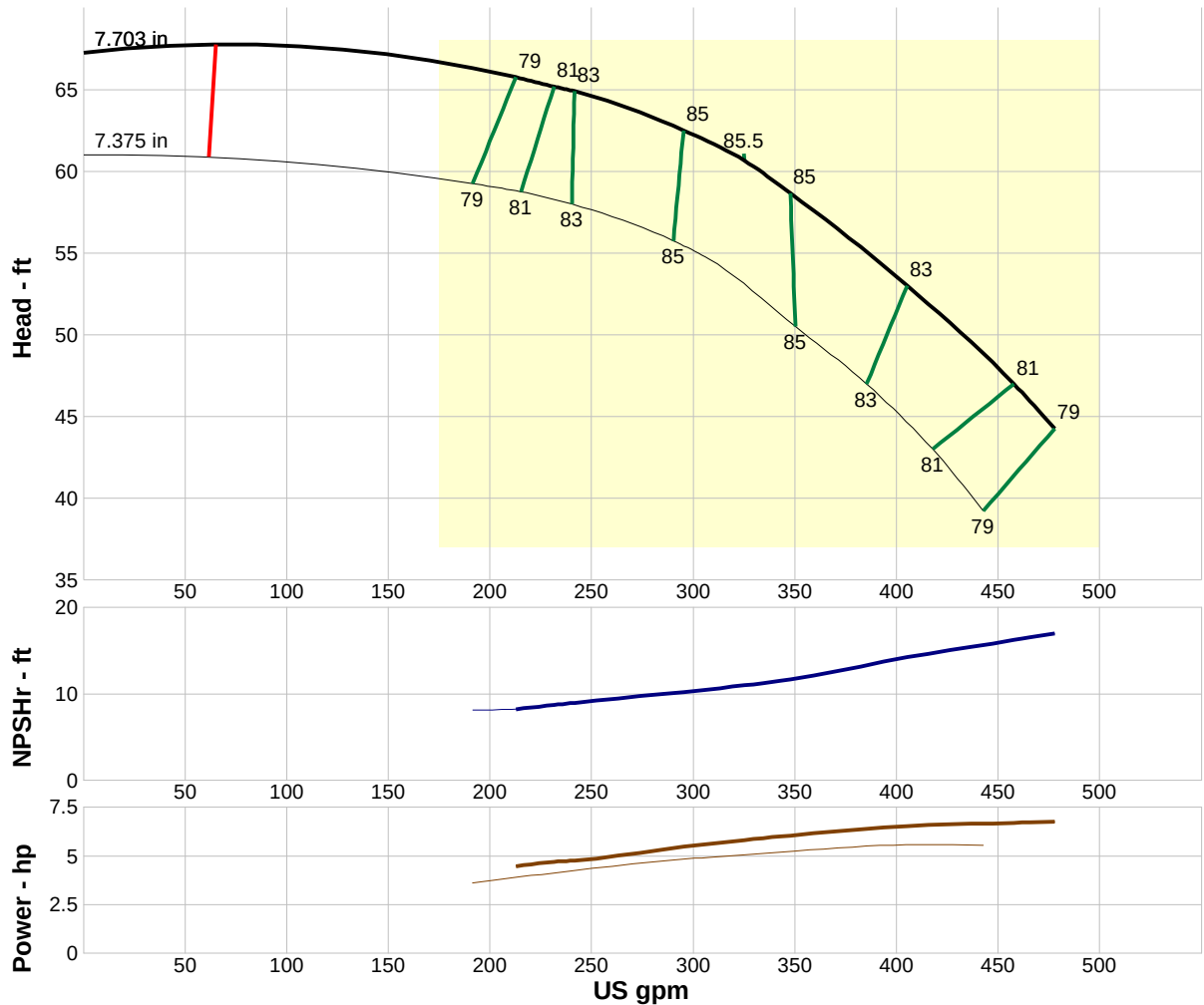
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 278 psi g
 Sphere size: 0.531 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	325 US gpm
Head:	60.7 ft
Eff:	85.5%
Power:	5.82 hp
NPSHr:	11 ft
---- Design Curve ----	
Shutoff head:	67.3 ft
Shutoff dP:	29.1 psi
Min flow:	65 US gpm
BEP:	85.5% @ 325 US gpm
NOL power:	6.75 hp @ 478 US gpm
-- Max Curve --	
Max power:	6.75 hp @ 478 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
458	1760	46.9	80.9	6.7	16.3
382	1760	55.3	83.8	6.34	13.2
306	1760	61.8	85.2	5.6	10.5
229	1760	65.2	80.8	4.67	8.69
153	1760	66.2	72.7	3.73	6.67