

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 10EC (1 stage)
 Type: Vertical
 Synch speed: 3450 rpm
 Curve: 10EC
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 3450 rpm
 Dia: 7.703 in
 Impeller:
 Ns: 3450
 Nss: ---
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 9.5 in
 Max lateral: 0.75 in
 Thrust K factor: 5 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

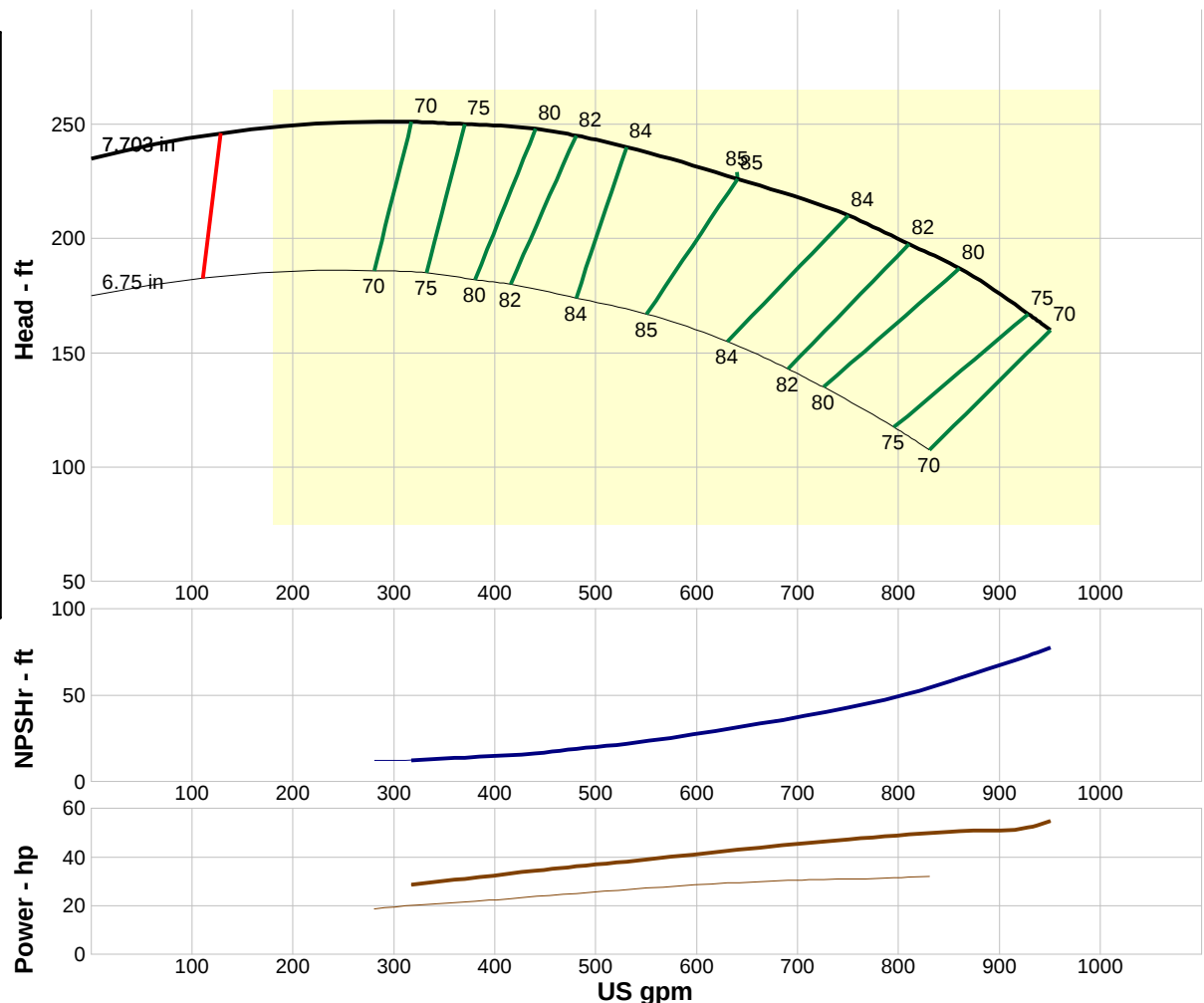
Motor:

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:	640 US gpm
Head:	226 ft
Eff:	85%
Power:	43 hp
NPSHr:	31.5 ft
---- Design Curve ----	
Shutoff head:	235 ft
Shutoff dP:	102 psi
Min flow:	128 US gpm
BEP:	85% @ 640 US gpm
NOL power:	54.8 hp @ 950 US gpm
-- Max Curve --	
Max power:	54.8 hp @ 950 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
912	3450	172	76.2	51.8	69.9
760	3450	208	83.7	47.7	44.3
608	3450	230	84.7	41.6	28.7
456	3450	247	80.8	35.2	17.5
304	3450	250	68.8	28.1	12.1