

Company: Bonneville Power Administration

Name:

Date: 11/25/2006



Pump:

Size: 7LH (1 stage)
 Type: Submersible
 Synch speed: 3450 rpm
 Curve: 7LH
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 3450 rpm
 Dia: 5.4 in
 Impeller:
 Ns: 3450
 Nss: ---
 Suction: --- in
 Discharge: --- in
 Bowl size: 7.13 in
 Max lateral: 0.5 in
 Thrust K factor: 2.63 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

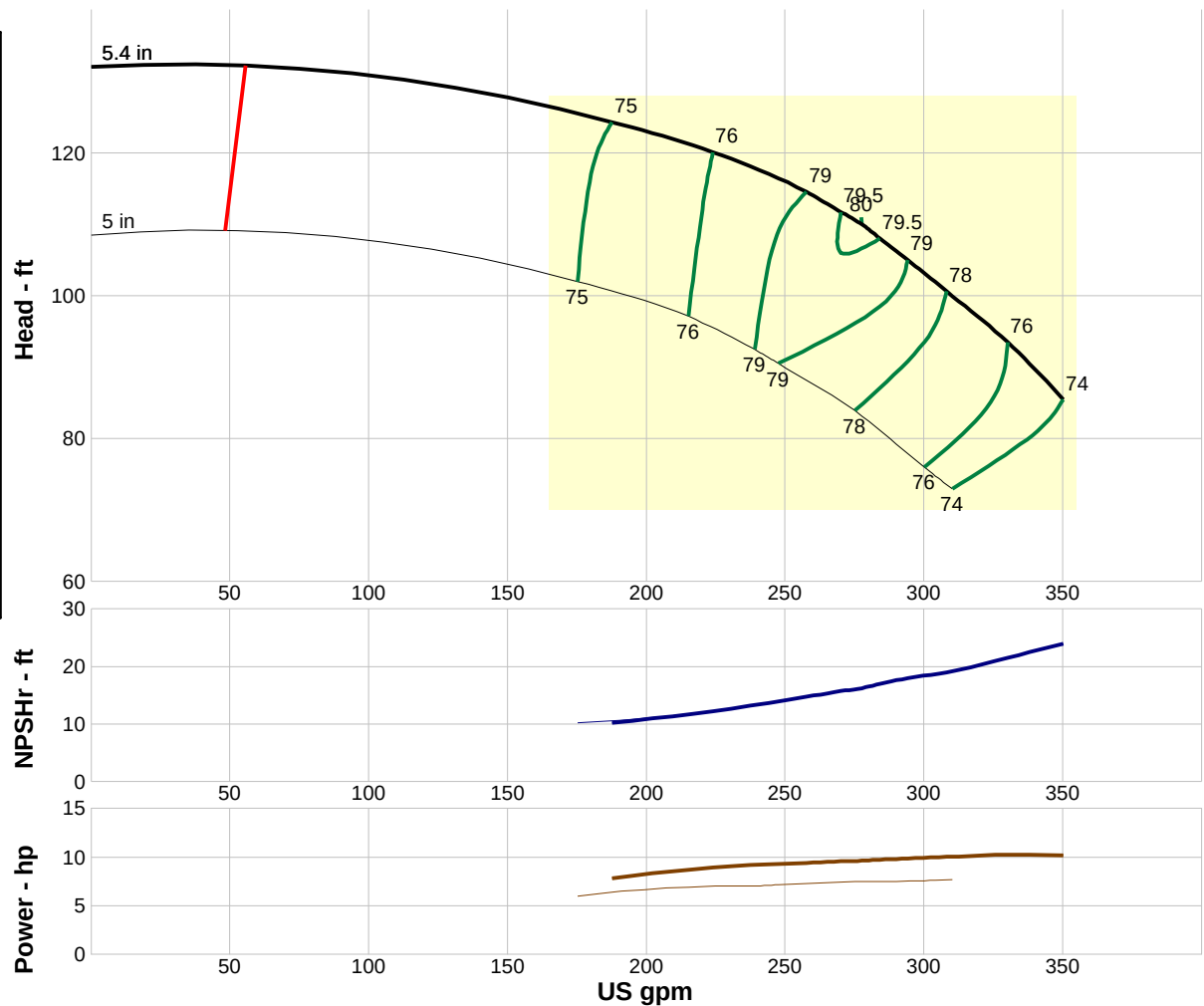
Motor:

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

Pump Limits:

Temperature: 140 °F
 Pressure: 475 psi g
 Sphere size: 0.25 in
 Power: 150 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	278 US gpm
Head:	110 ft
Eff:	80%
Power:	9.64 hp
NPSHr:	16.3 ft
---- Design Curve ----	
Shutoff head:	132 ft
Shutoff dP:	57.1 psi
Min flow:	55.5 US gpm
BEP:	80% @ 278 US gpm
NOL power:	10.3 hp @ 330 US gpm
-- Max Curve --	
Max power:	10.3 hp @ 330 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
336	3450	91.1	75.4	10.2	22.3
280	3450	109	79.8	9.68	16.5
224	3450	120	76	8.93	12.3
168	3450	125	74.5	7.27	9.18
112	3450	127	72.9	5.59	6.09