



Company: Bonneville Power Administration

Name:

Date: 2/8/2007

Selection: FPI

#### Pump:

Size: AF42-36-320

Type: AXIAL FLOW

Synch speed: 327 rpm

Curve:

Specific Speeds:

Dimensions:

Speed: 320 rpm

Line: A (42)

Impeller:

Ns: ---

Nss: ---

Suction: --- in

Discharge: --- in

#### Search Criteria:

Flow: --- US gpm

Head: --- ft

#### Fluid:

Water

Density: 62.25 lb/ft<sup>3</sup>

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

--- hp

Speed: ---

Frame: ---

Sizing criteria: Max Power on Design Curve

#### Pump Limits:

Temperature: --- °F

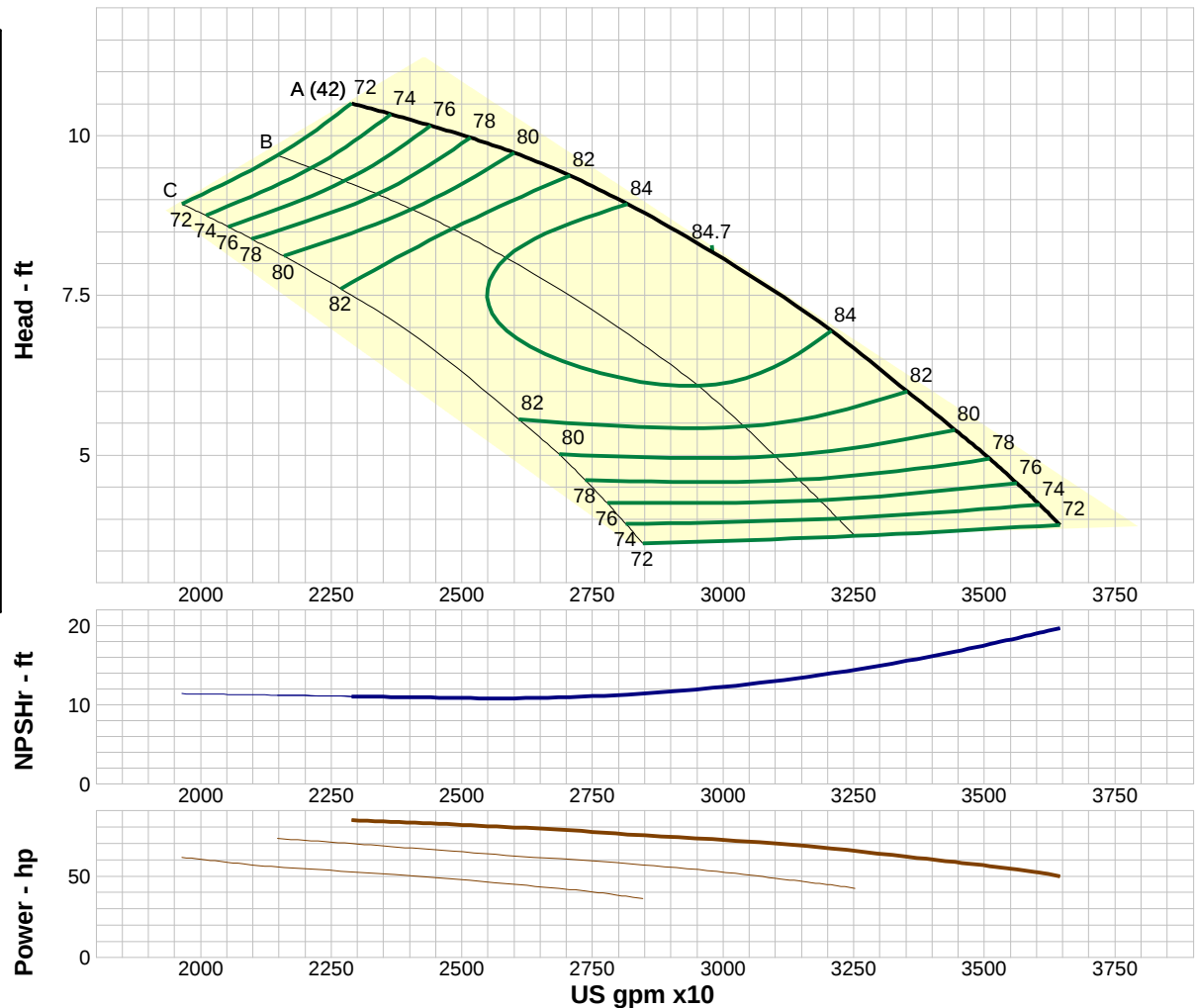
Pressure: --- psi g

Sphere size: --- in

Power: --- hp

Eye area: --- in<sup>2</sup>

| ---- Data Point ----   |                        |
|------------------------|------------------------|
| Flow:                  | 29782 US gpm           |
| Head:                  | 8.18 ft                |
| Eff:                   | 84.7%                  |
| Power:                 | 72.6 hp                |
| NPSHr:                 | 12.2 ft                |
| ---- Design Curve ---- |                        |
| Shutoff head:          | 10.2 ft                |
| Shutoff dP:            | 4.39 psi               |
| Min flow:              | --- US gpm             |
| BEP:                   | 84.7% @ 29782 US gpm   |
| NOL power:             | 84.3 hp @ 22875 US gpm |
| -- Max Curve --        |                        |
| Max power:             | 84.3 hp @ 22875 US gpm |



The performance is guaranteed for the design point only when pumping clean water at 85 degrees F. Consult factory for certified performance curve.

#### Performance Evaluation:

| Flow<br>US gpm | Speed<br>rpm | Head<br>ft | Efficiency<br>% | Power<br>hp | NPSHr<br>ft |
|----------------|--------------|------------|-----------------|-------------|-------------|
| 34979          | 320          | 5.02       | 78.3            | 56.6        | 17.5        |
| 29149          | 320          | 8.47       | 84.4            | 73.8        | 11.9        |
| 23319          | 320          | 10.4       | 73.2            | 83.8        | 11.1        |
| 17489          | 320          | ---        | ---             | ---         | ---         |
| 11660          | 320          | ---        | ---             | ---         | ---         |