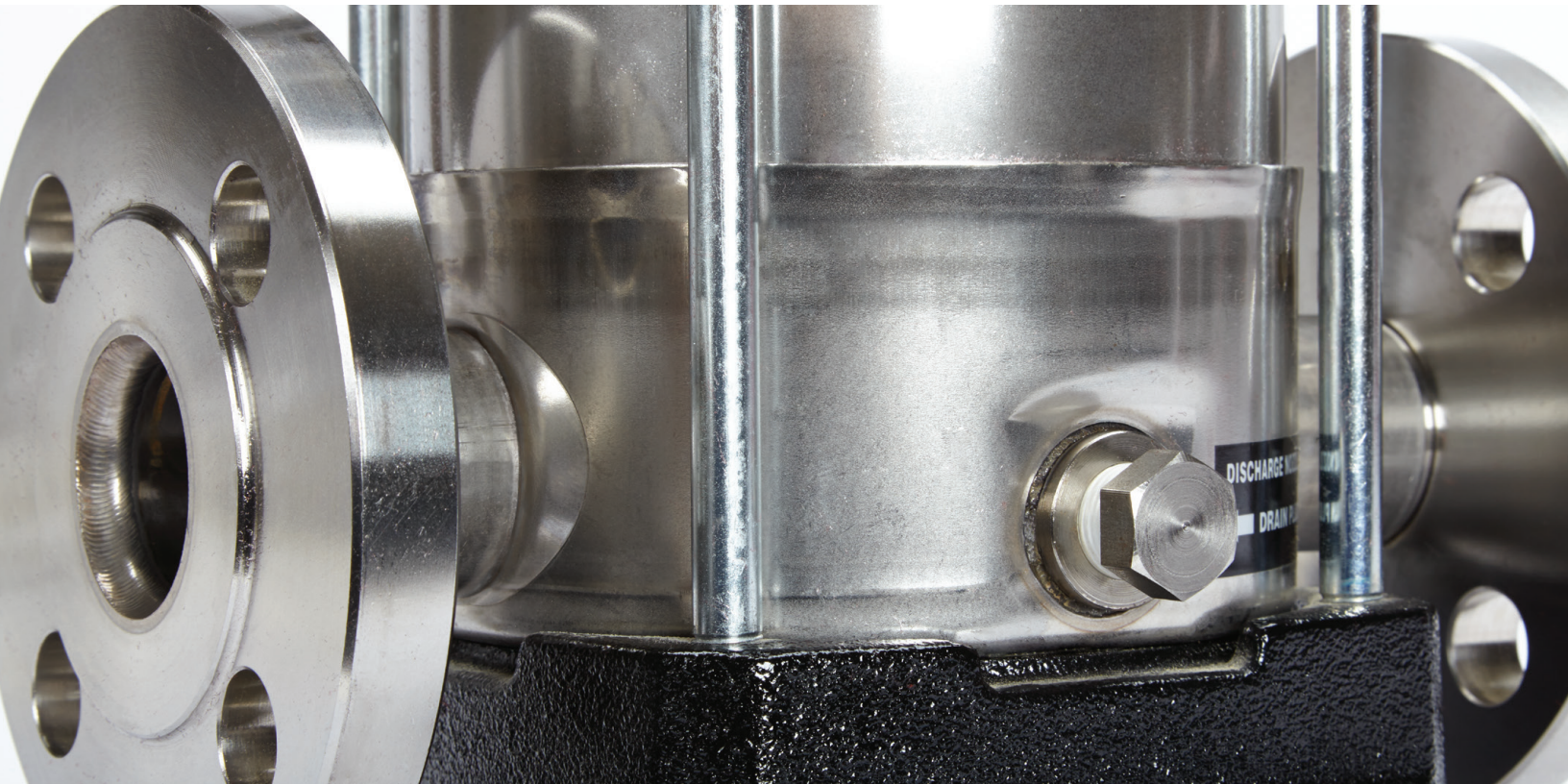




8K Series Pumps

Stainless Steel Multistage Centrifugal Pumps



Product Quality, Reliability and Support You Expect

www.catpumps.com

8K Multistage Centrifugal Pumps

Designed for long-life and trouble free service, the 8K series is a superior line of multistage centrifugal pumps. Originally engineered for booster, water purification, and hot water applications, many other industries have adopted this product due to its reliable performance.

The 8K series is an industrial-grade pump consisting of 304 or 316 SS hydraulic assemblies constructed with cast stainless steel flanges for maximum installation support. Optional mechanical seal face configurations are available. The 8K also features tungsten carbide lower pump bearings and sleeves – standard construction for all services, providing maximum operating life. Count on the 8K to get the job done.



Features:

- All stainless steel wetted parts (8K, 8CK feature 304SS – 8SK feature 316SS)
- All Viton® elastomers (other materials available for special applications)
- Vertical pump design utilizes standard footless NEMA motors
- An air vent at the top of the casing cover prevents air entrapment eliminating run-dry conditions during start-up
- Dimensions and flanges are built to industry standards to allow easy retrofit of existing systems
- All series utilize a cartridge-style mechanical seal with standard materials of Silicon Carbide/Carbon/Viton®
- Reinforced impellers and bowls eliminate flexing during operation
- Temperature range -22° F to 248° F

Applications:

- Water Boosting
- Water Supply
- Reverse Osmosis
- Washing Systems
- Boiler Feed
- Fire Misting
- Water Treatment
- Sprinkler Systems
- Heat Exchangers
- Filtration

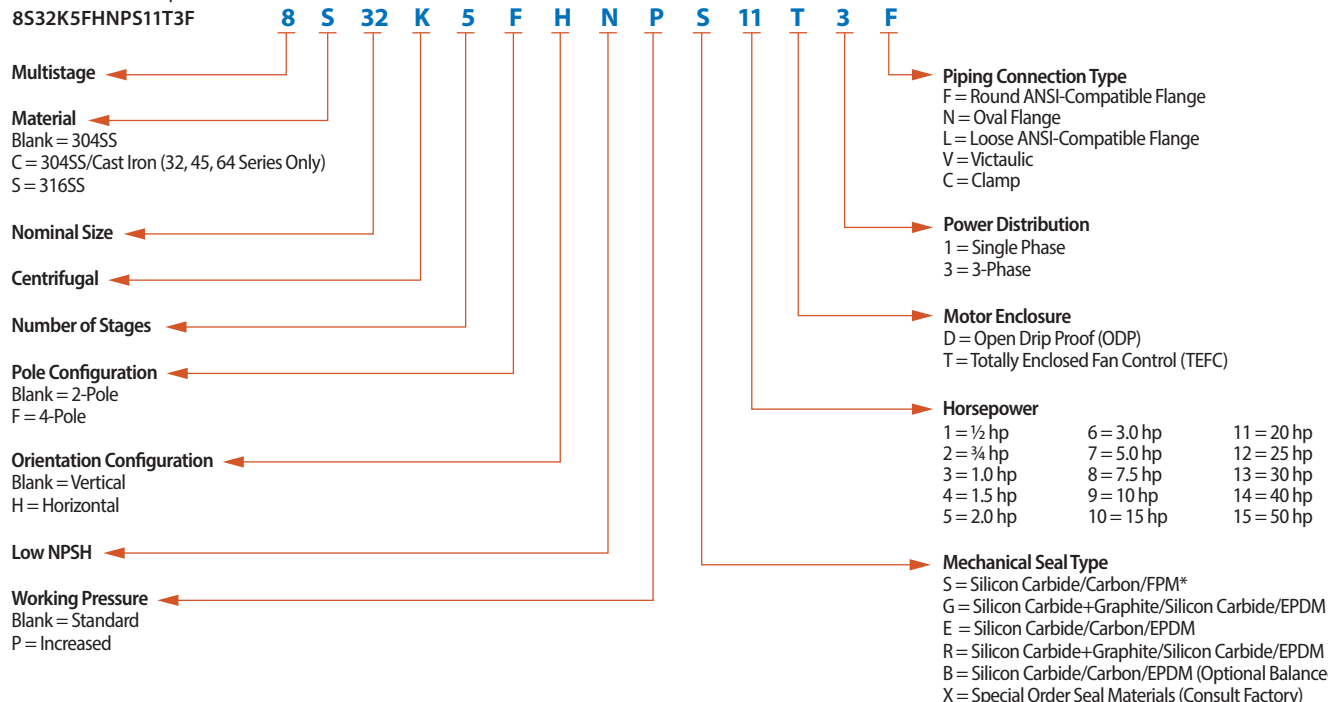
Materials:

- 8K – 304SS
- 8CK – 304SS/
Cast Iron
(32, 45, 64 Series only)
- 8SK – 316 SS

Part Number Breakdown:

Part Number Example:

8S32K5FHNPST11T3F



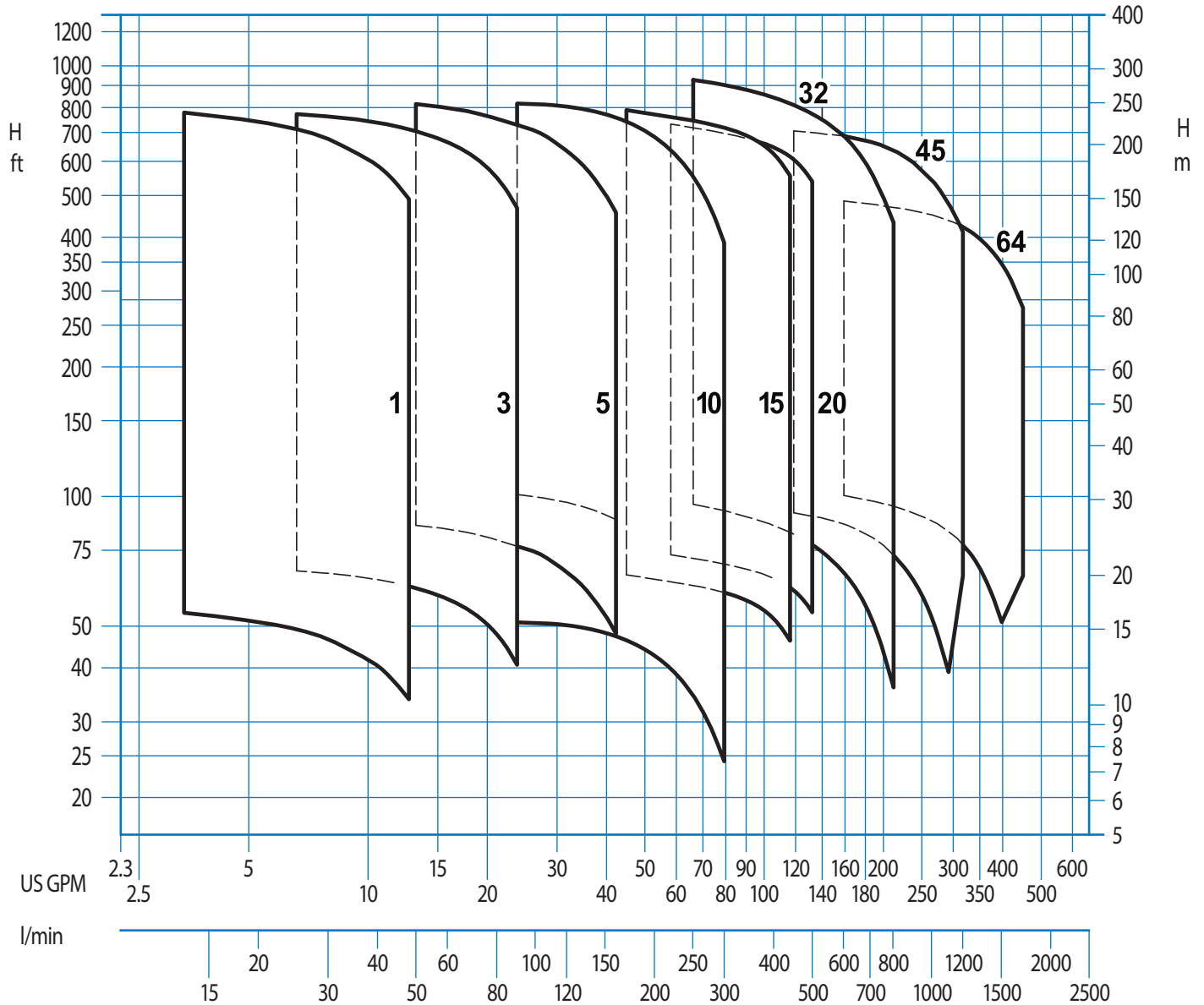
Viton® is a registered trademark of DuPont Dow Elastomers

* Models 8K/8SK 1–20 and 8K/8CK/8SK 32–64 certified to NSF/ANSI 61 & 372.
Low NPSH models and models with operational seal types are not NSF Certified.

Model 8K/8CK/8SK Selection Chart

60 Hz • Nominal Speed 3500 RPM • 8K1 – 8K20 Series

60 Hz • Nominal Speed 3450 RPM • 8K32 – 8K64 Series



Individual Model Selection:

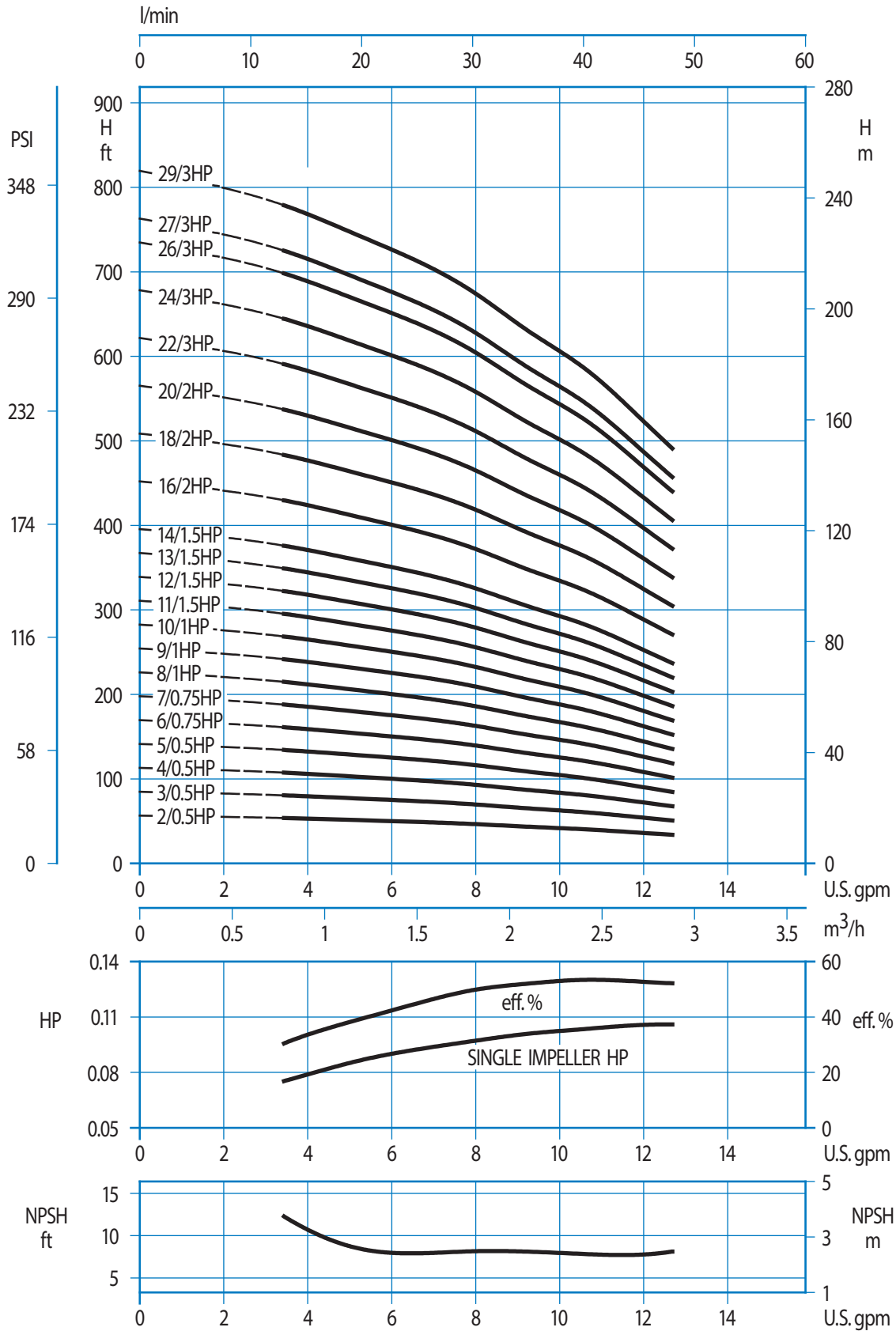
| | |
|------------|--------|
| 8K1 Series | Page 4 |
| 8K3 Series | Page 5 |
| 8K5 Series | Page 6 |

| | |
|-------------|--------|
| 8K10 Series | Page 7 |
| 8K15 Series | Page 8 |
| 8K20 Series | Page 9 |

| | |
|-------------|---------|
| 8K32 Series | Page 10 |
| 8K45 Series | Page 11 |
| 8K64 Series | Page 12 |

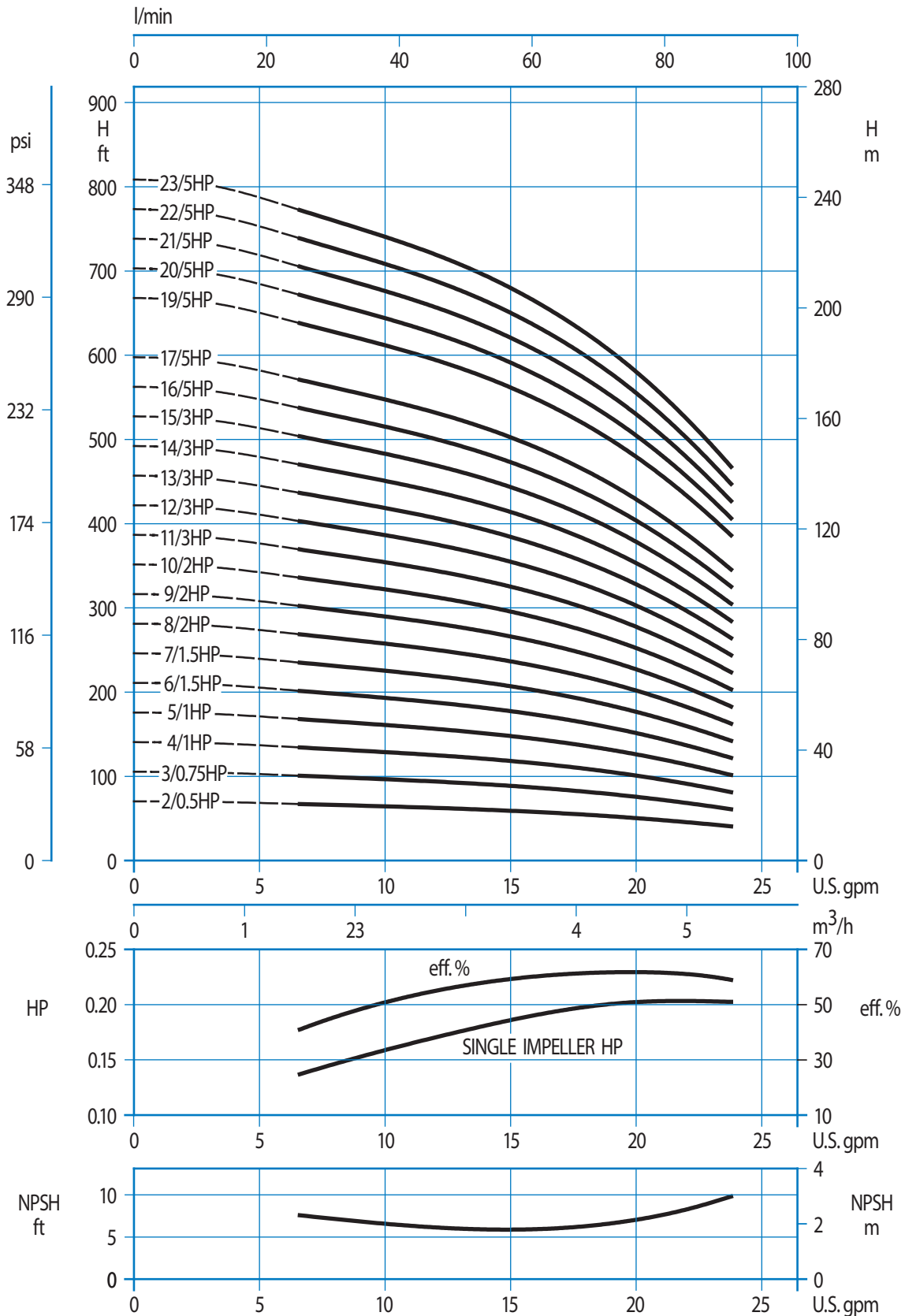
8K/8SK 1-Series Performance Curves

0.5 HP – 3 HP • Nominal Speed 3500 RPM • 300# ANSI 1¼" 4-Bolt



8K/8SK 3-Series Performance Curves

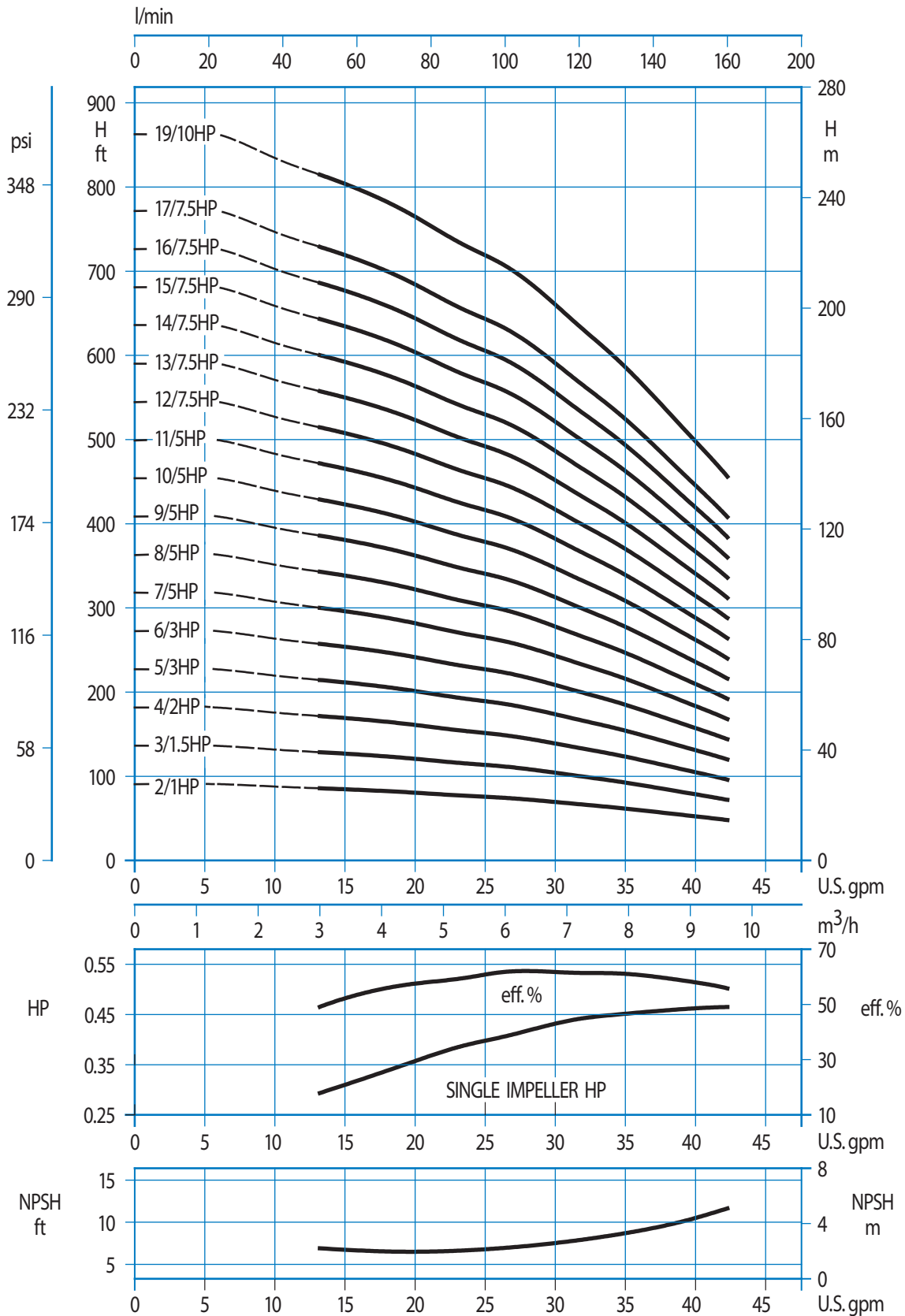
0.5 HP – 5 HP • Nominal Speed 3500 RPM • 300# ANSI 1 1/4" 4-Bolt



Contact Cat Pumps for low NPSH pump option

8K/8SK 5-Series Performance Curves

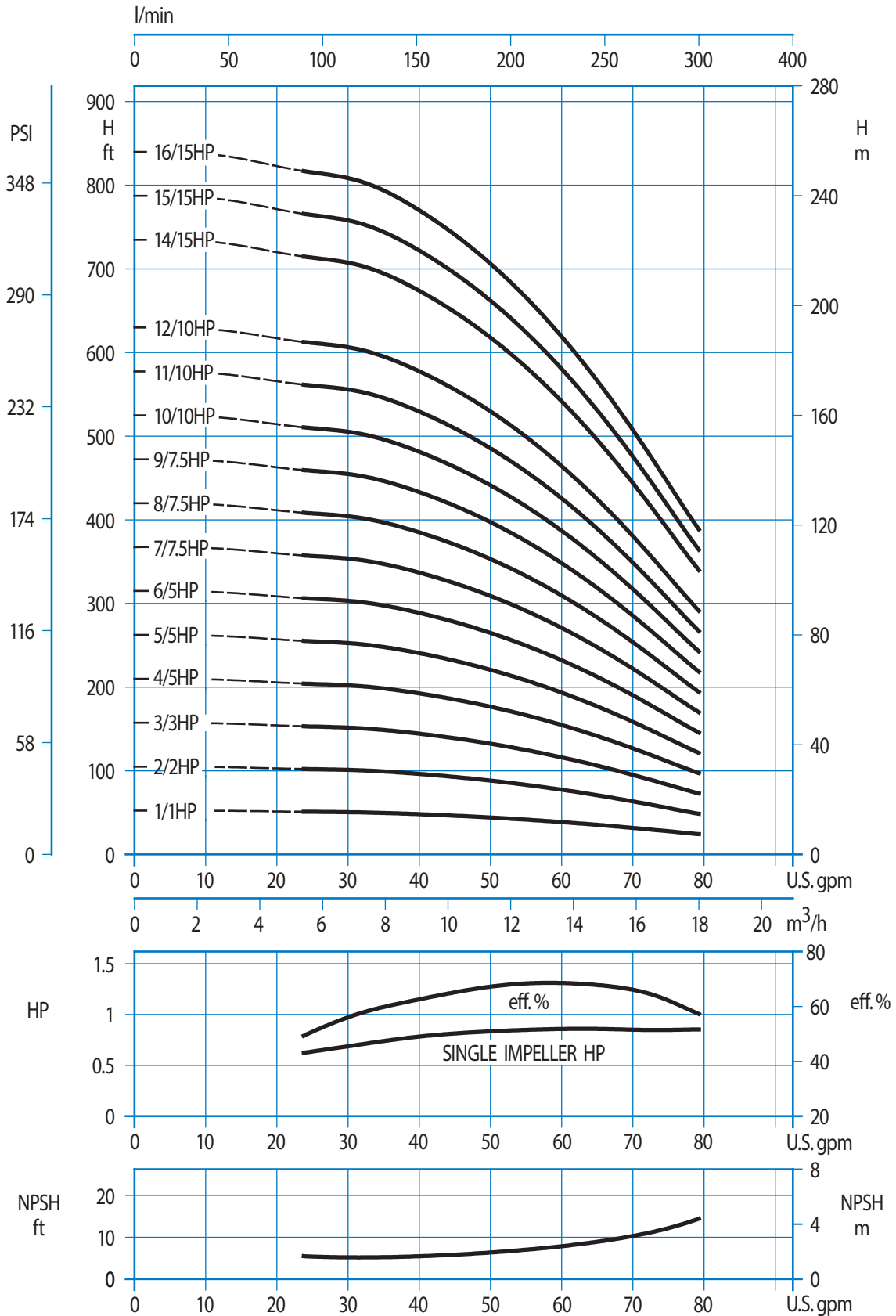
1.0 HP – 10 HP • Nominal Speed 3500 RPM • 300# ANSI 1¼" 4-Bolt



Contact Cat Pumps for low NPSH pump option

8K/8SK 10-Series Performance Curves

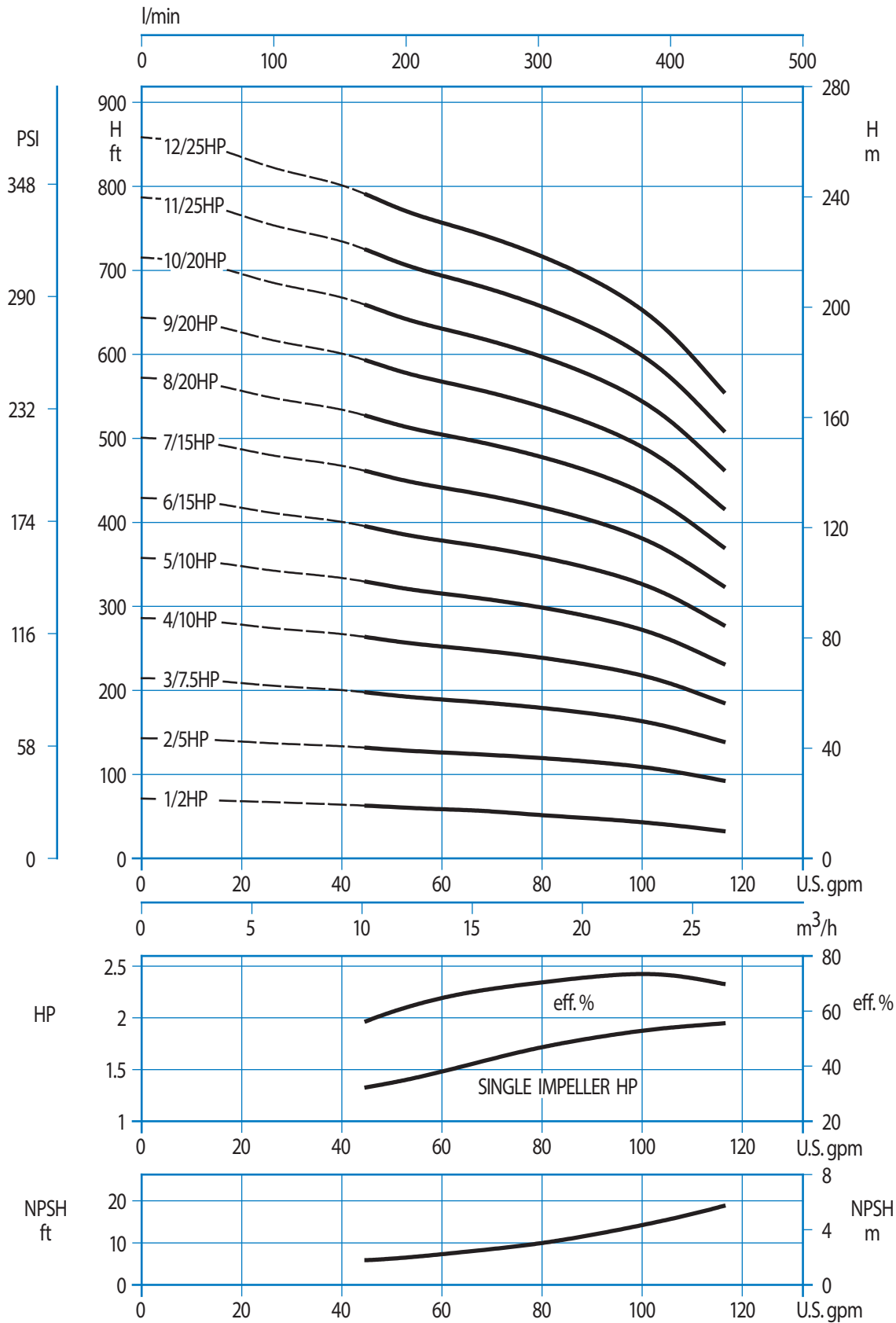
1.0 HP – 15 HP • Nominal Speed 3500 RPM • 300# ANSI 2" 8-Bolt



Contact Cat Pumps for low NPSH pump option

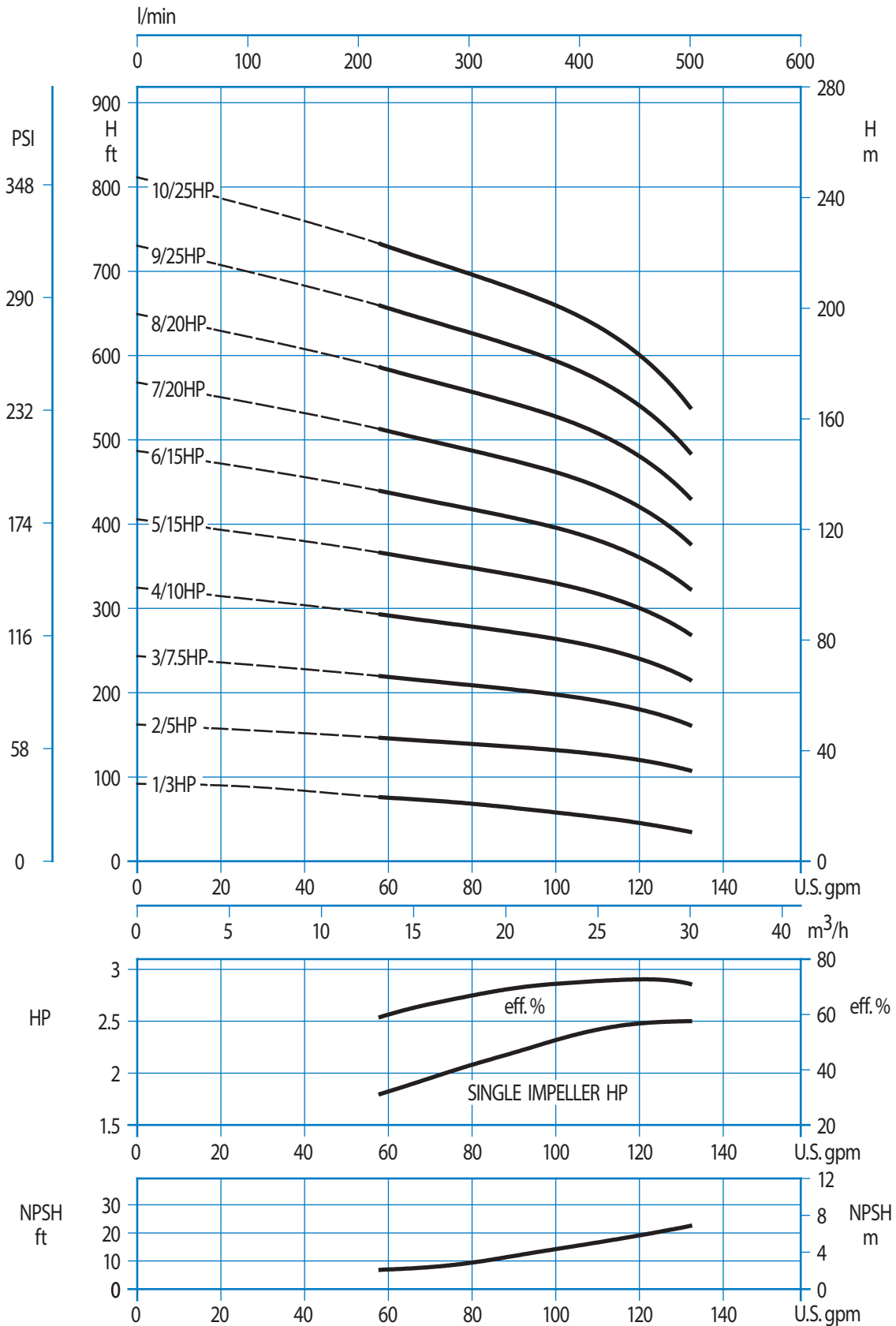
8K/8SK 15-Series Performance Curves

2.0 HP – 25 HP • Nominal Speed 3500 RPM • 300# ANSI 2" 8-Bolt



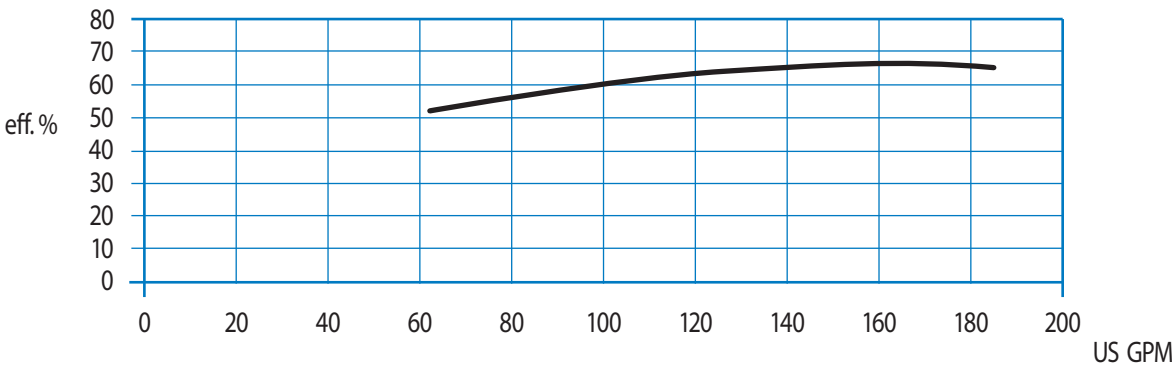
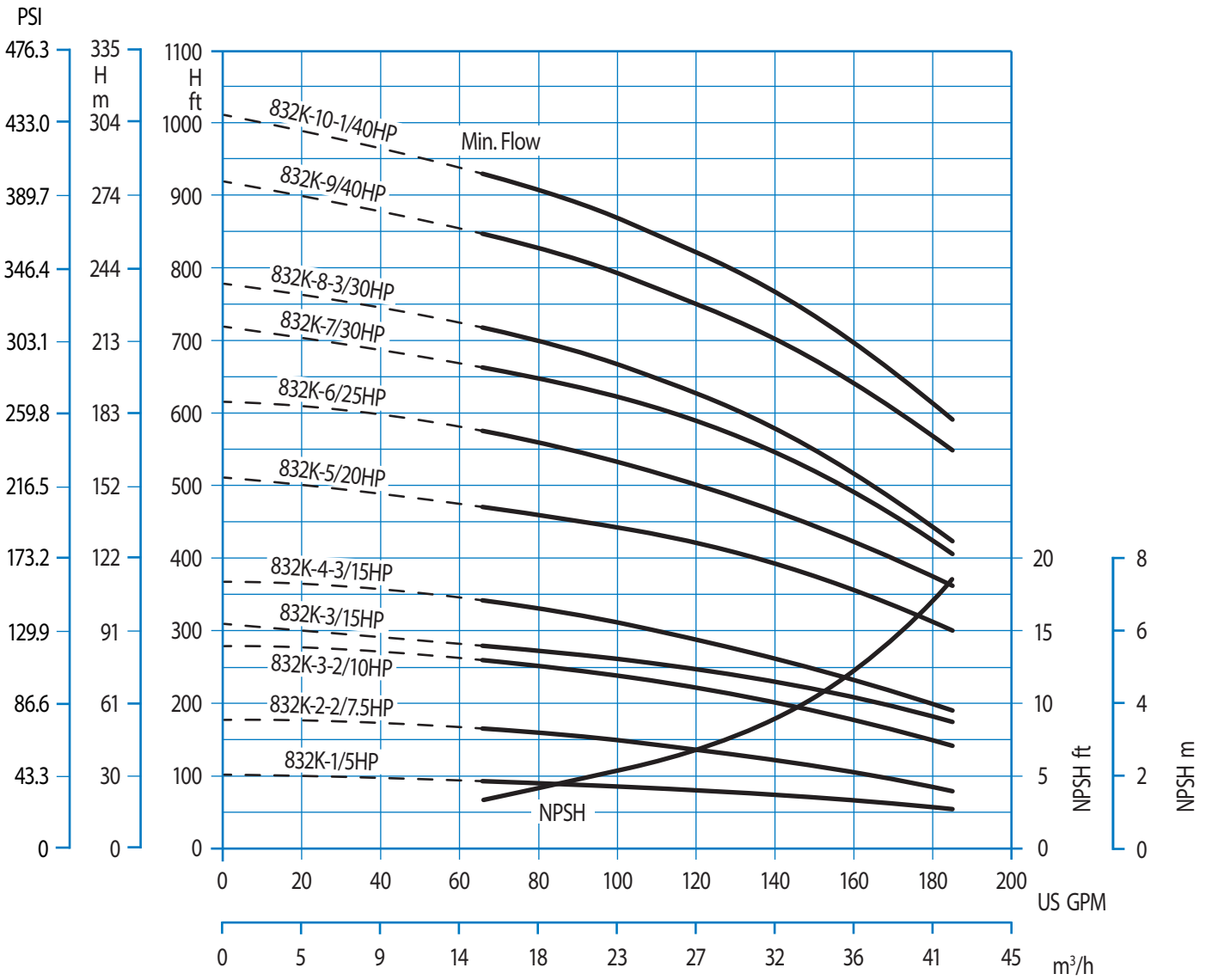
8K/8SK 20-Series Performance Curves

3.0 HP – 25 HP • Nominal Speed 3500 RPM • 300# ANSI 2" 8-Bolt



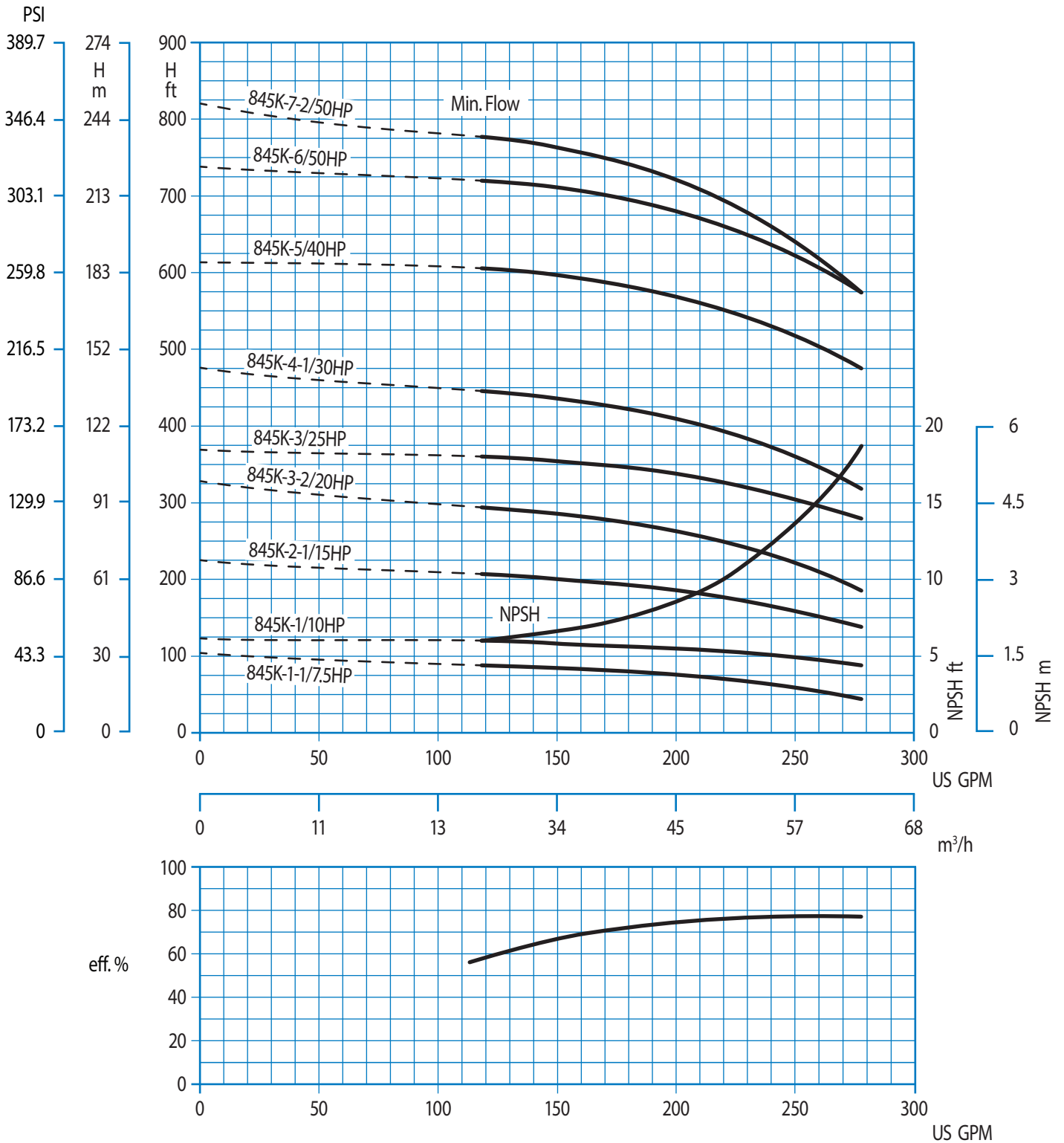
8K/8SK 32-Series Performance Curves

5.0 HP – 40 HP • Nominal Speed 3450 RPM • 300# 2½" 8-Bolt



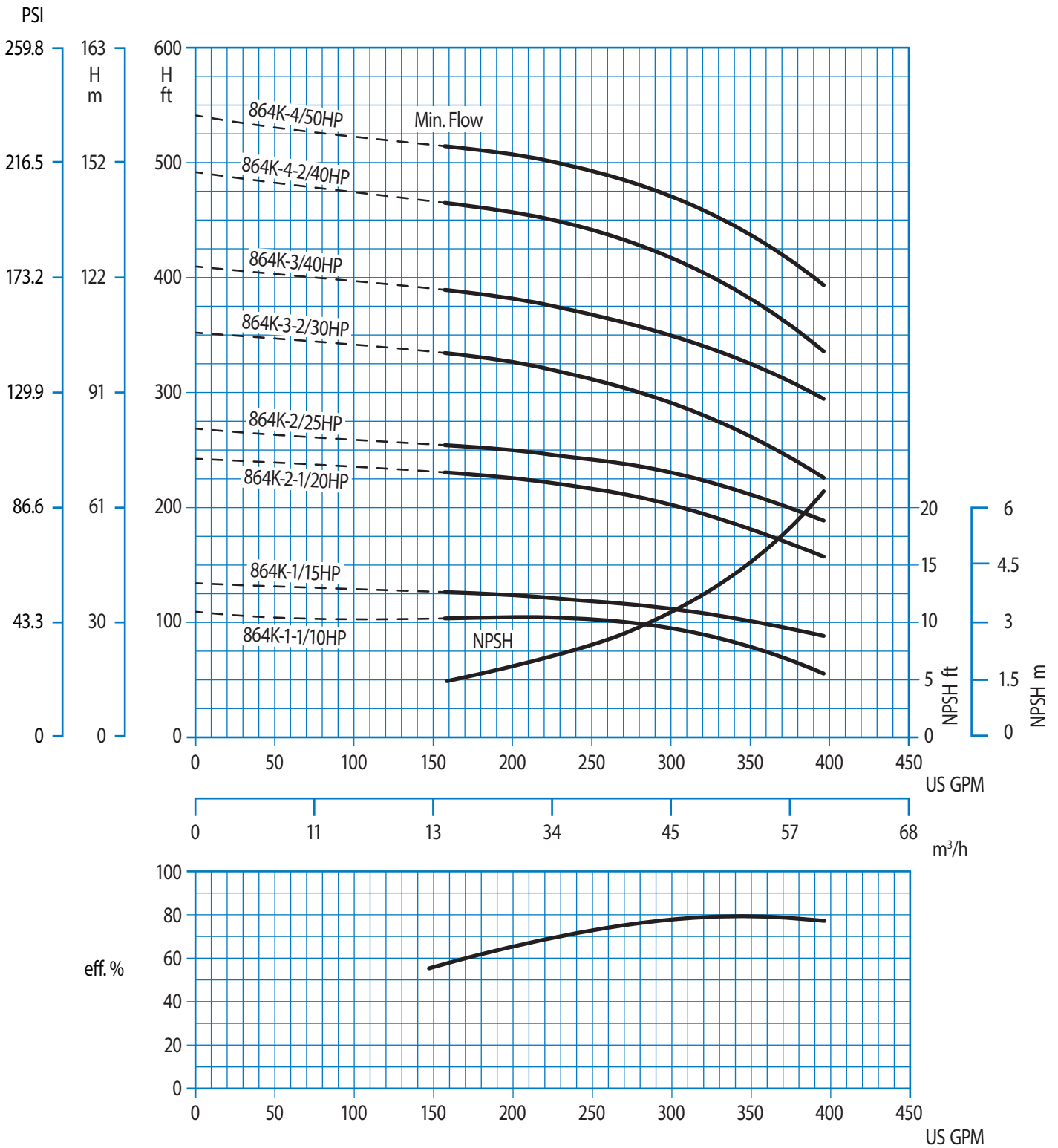
8CK/8SK 45-Series Performance Curves

7.5 HP – 25 HP • Nominal Speed 3450 RPM • 150# ANSI 3" 4-Bolt
 30 HP – 50 HP • Nominal Speed 3450 RPM • 300# ANSI 3" 8-Bolt



8CK/8SK 64-Series Performance Curves

10 HP – 50 HP • Nominal Speed 3450 RPM • 300# ANSI 4" 8-Bolt



Product Specifications

81K/83K/85K/810K/820K
8S1/8S3/8S5/8S10/8S20K

| PUMP | | | | | | | | | | | | | | |
|------------------|--------------------------------------|-----------------------|--|---|---|----|----|----|--------------|---|---|----|----|----|
| Version | | | 8K | | | | | | 8SK | | | | | |
| | | | 1 | 3 | 5 | 10 | 15 | 20 | 1 | 3 | 5 | 10 | 15 | 20 |
| Performance Type | Nominal Size | | 1/2 to 25 hp | | | | | | | | | | | |
| | HP | | 2.9 to 132.1 gpm | | | | | | | | | | | |
| | Capacity | | 24.3 to 860 ft TDH | | | | | | | | | | | |
| | Head | | | | | | | | | | | | | |
| Liquid Handling | Type of Liquid | | Clean Water (for Other Clean Liquids, Consult Factory) | | | | | | | | | | | |
| | Maximum Working Pressure | | 230/375 psi (Depending on Model) | | | | | | | | | | | |
| | Liquid Temperature Range | | -22° F To 248° F (-30° C to 120° C) | | | | | | | | | | | |
| Size | Suction Inlet | | 1 1/4" | | | 2" | | | 1 1/4" | | | 2" | | |
| | Discharge | | 1 1/4" | | | 2" | | | 1 1/4" | | | 2" | | |
| Pipe Connection | Oval Flange | Up to 230 psi | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Round Flange (ANSI-Compatible) | Up to 230 psi | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | Up to 375 psi | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Loose Round Flange (ANSI-Compatible) | Up to 230 psi | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | | Up to 375 psi | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Victaulic | Up to 230 & 375 psi | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Clamp | Up to 230 & 375 psi | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Materials | Impeller | | AISI 304 | | | | | | AISI 316 | | | | | |
| | Intermediate Casing | | AISI 304 | | | | | | AISI 316 | | | | | |
| | Liner Ring | | AISI 304+PPS | | | | | | AISI 316+PPS | | | | | |
| | Bottom Casing | | AISI 304 | | | | | | AISI 316 | | | | | |
| | Casing Cover | | AISI 304 | | | | | | AISI 316 | | | | | |
| | Shaft | AISI 304 | 81K/83K/85K/810K/815K/820K (Depending on Model) | | | | | | | | | | | |
| | | AISI 316L | 8S1K/8S3K/8S5K/8S10K/8S15K/8S20K (Depending on Model) | | | | | | | | | | | |
| | Shaft Sleeve Bearing | | Tungsten Carbide | | | | | | | | | | | |
| | Shaft Seal (Mechanical Seal) | SiC/Carbon/FPM | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | SiC+Graphite/SiC/FPM | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | | SiC/Carbon/EPDM | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | | SiC+Graphite/SiC/EPDM | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | O-Ring | FPM | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | EPDM | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Outer Casing | | AISI 304 | | | | | | AISI 316L | | | | | |
| | Motor Bracket | | Cast Iron | | | | | | | | | | | |
| | Tie Rod | | AISI 431 | | | | | | | | | | | |
| | Coupling | Up to 5 hp | Die Cast Aluminum | | | | | | | | | | | |
| | | 7 1/2 hp and Larger | Cast Iron | | | | | | | | | | | |
| | Base | | Die Cast Aluminum | | | | | | | | | | | |
| Motor | Type | | NEMA C/TC/TSC Frame, TEFC or ODP Enclosure | | | | | | | | | | | |
| | Speed | | 2-Pole, 60 Hz, 3500 rpm | | | | | | | | | | | |
| | Power Requirements | | 3-Phase, 230/460V or 208-230/460V – Single-Phase, 115/230V | | | | | | | | | | | |
| | Direction or Rotation | | Clockwise When Viewed from Motor End | | | | | | | | | | | |
| | Motor Options | | Consult Factory for Optional Motor Types | | | | | | | | | | | |

Legend: ● Standard ○ Options

Product Specifications

8C32K/8C45K/8C64K

8S32K/8S45K/8S64K

| PUMP | | | | | | | | |
|------------------|--|--|--|----|--------------|----|----|---|
| Version | | 8CK | | | 8SK | | | |
| Performance Type | Nominal Size | 32 | 45 | 64 | 32 | 45 | 64 | |
| | HP | 5 to 60 hp | | | | | | |
| | Capacity | 79.3 to 449.14 gpm | | | | | | |
| | Head | 25.3 to 918.7 ft | | | | | | |
| Liquid Handling | Type of Liquid | Clean Water (for Other Clean Liquids, Consult Factory) | | | | | | |
| | Maximum Working Pressure | 230/360/435 psi (Depending on Model) | | | | | | |
| | Liquid Temperature Range | -22° F to 248° F (-30° C to 120° C) | | | | | | |
| Size | Suction Inlet | 2½" | 3" | 4" | 2½" | 3" | 4" | |
| | Discharge | 2½" | 3" | 4" | 2½" | 3" | 4" | |
| Pipe Connection | Round Flange (ANSI-Compatible Raised Face) | ● | ● | ● | | | | |
| | Loose Round Flange (ANSI-Compatible Raised Face) | | | | ● | ● | ● | |
| Materials | Impeller | AISI 304 | | | AISI 316L | | | |
| | Intermediate Casing | AISI 304 | | | AISI 316L | | | |
| | Liner Ring | AISI 316+PPS | | | AISI 316+PPS | | | |
| | Bottom Casing | Cast Iron | | | AISI 316 | | | |
| | Casing Cover | AISI 304 | | | AISI 316L | | | |
| | Shaft | AISI 304 | 8C32K/8C45K/8C64K (Depending on Model) | | | | | |
| | | AISI 316L | 8S32K/8S45K/8S64K (Depending on Model) | | | | | |
| | | AISI 329A | 8S45K/8S64K (Depending on Model) | | | | | |
| | Shaft Sleeve Bearing | Tungsten Carbide | | | | | | |
| | Shaft Seal (Mechanical Seal) | SiC/Carbon/FPM | ● | ● | ● | ● | ● | ● |
| | | SiC+Graphite/SiC/FPM | ○ | ○ | ○ | ○ | ○ | ○ |
| | | SiC/Carbon/EPDM | ○ | ○ | ○ | ○ | ○ | ○ |
| | | SiC+Graphite/SiC/EPDM | ○ | ○ | ○ | ○ | ○ | ○ |
| | O-Ring | FPM | ● | ● | ● | ● | ● | ● |
| | | EPDM | ○ | ○ | ○ | ○ | ○ | ○ |
| | Outer Casing | AISI 304 | | | AISI 316L | | | |
| | Motor Bracket | Cast Iron | | | | | | |
| Tie Rod | AISI 431 | | | | | | | |
| Coupling | Up to 5 hp | Die Cast Aluminum | | | | | | |
| | From 7½ to 40 hp | Cast Iron | | | | | | |
| | 150 hp and Larger | Carbon Steel | | | | | | |
| Base | Cast Iron | | | | | | | |
| Motor | Type | NEMA C/TC/TSC Frame, TEFC or ODP Enclosure | | | | | | |
| | Speed | 2-Pole, 60 Hz, 3450 rpm | | | | | | |
| | Power Requirements | 3 Phase, 230/460V or 208-230/460V, Single Phase 115/230V | | | | | | |
| | Direction or Rotation | Clockwise When Viewed from Motor End | | | | | | |
| | Motor Options | Consult Factory for Optimal Motor Types | | | | | | |

Legend: ● Standard ○ Options

Additional Centrifugal Pumps

304 Stainless Steel Casing

Centrifugal pumps offer solutions for high-flow, low-pressure industrial pumping needs. Typical fluids pumped include freshwater or liquids with some suspended solids. Below is a sampling of popular centrifugal models that include the pump, seal and motor. Most of the pumps listed are rated at 3450 rpm, but many models are available at 1725 rpm.



SUBMERSIBLE PUMPS WITH INTEGRAL MOTOR AND SEAL*

45 to 100 gpm (170 to 379 lpm)

| PUMP MODEL | MAXIMUM FLOW | | MAXIMUM PRESSURE | | HORSEPOWER | | PHASE/VOLTAGE |
|------------|--------------|-----|------------------|------|------------|-----|---------------|
| | GPM | LPM | PSI | BAR | HP | KW | |
| 1K100 | 45 | 170 | 10 | 0.69 | 0.3 | 0.2 | 1PH / 115V** |
| 1K201 | 73 | 276 | 17 | 1.17 | 0.5 | 0.4 | 1PH / 115V** |
| 1K203 | 73 | 276 | 17 | 1.17 | 0.5 | 0.4 | 1PH / 115V*** |
| 1K205 | 73 | 276 | 17 | 1.17 | 0.5 | 0.4 | 3PH / 460V*** |
| 1K301 | 74 | 280 | 21 | 1.45 | 0.75 | 0.6 | 1PH / 115V** |
| 1K303 | 74 | 280 | 21 | 1.45 | 0.75 | 0.6 | 1PH / 115V*** |
| 1K305 | 74 | 280 | 21 | 1.45 | 0.75 | 0.6 | 3PH / 460V*** |
| 2K102 | 88 | 333 | 9 | 0.62 | 0.5 | 0.4 | 1PH / 230V*** |
| 2K103 | 88 | 333 | 9 | 0.62 | 0.5 | 0.4 | 1PH / 230V** |
| 2K200 | 100 | 379 | 11 | 0.76 | 1.0 | 0.7 | 1PH / 115V** |
| 2K202 | 100 | 379 | 11 | 0.76 | 1.0 | 0.7 | 1PH / 230V** |

*Motor side seal is NBR fitted Carbon/Ceramic and impeller side seal is Viton® fitted Silicon Carbide/Silicone Carbide.

**Supplied with automatic float switch

***Manual models, no float switch

END-SUCTION MOTORIZED UNITS WITH TEFC 56J NEMA MOTOR

38 to 63 gpm (144 to 238 lpm)

| | | | | | | | |
|----------|----|-----|----|-----|-----|-----|--------------------|
| 3K132WT0 | 38 | 144 | 62 | 4.3 | 2.0 | 1.5 | 1PH / 115/208-230V |
| 3K132MT3 | 38 | 144 | 62 | 4.3 | 2.0 | 1.5 | 3PH / 208-230/460V |
| 3K392BT3 | 52 | 197 | 13 | 0.9 | 0.5 | 0.4 | 3PH / 208-230/460V |
| 3K142WT0 | 63 | 238 | 32 | 2.2 | 1.0 | 0.7 | 1PH / 115/208-230V |
| 3K142WT3 | 63 | 238 | 32 | 2.2 | 1.0 | 0.7 | 3PH / 208-230/460V |
| 3K152WT0 | 63 | 238 | 44 | 3.0 | 1.5 | 1.1 | 1PH / 115/208-230V |
| 3K152WT3 | 63 | 238 | 44 | 3.0 | 1.5 | 1.1 | 3PH / 208-230/460V |
| 3K162WT3 | 63 | 238 | 63 | 4.3 | 3.0 | 2.2 | 3PH / 208-230/460V |

Note: All motors are rated at 3450 rpm except model 3K392BT3 which is rated at 1725. All models listed are equipped with a Viton®/Carbon/Ceramic chemical resistant seal. Buna-N and high temperature seals are also available.

END-SUCTION MOTORIZED UNITS WITH TEFC 213/215JM NEMA MOTOR

153 to 380 gpm (579 to 1,438 lpm)

| | | | | | | | |
|----------|-----|-------|----|-----|-----|------|--------------------|
| 4K142WT3 | 153 | 579 | 90 | 6.2 | 7.5 | 5.6 | 3PH / 208-230/460V |
| 4K192WT3 | 250 | 946 | 82 | 5.7 | 10 | 7.5 | 3PH / 208-230/460V |
| 4K252WT3 | 380 | 1,438 | 84 | 5.8 | 15 | 11.2 | 3PH / 208-230/460V |

Note: All motors are rated at 3450 rpm. All models listed are equipped with a Viton®/Carbon/Ceramic chemical resistant seal. Buna-N and high temperature seals are also available.

SELF-PRIMING MOTORIZED UNITS WITH TEFC 56J NEMA MOTOR

18.5 gpm (70 lpm)

| | | | | | | | |
|----------|------|----|----|-----|-----|-----|--------------------|
| 5K112WT0 | 18.5 | 70 | 56 | 3.9 | 1.0 | 0.7 | 1PH / 115/208-230V |
| 5K112WT3 | 18.5 | 70 | 56 | 3.9 | 1.0 | 0.7 | 3PH / 208-230/460V |
| 5K122WT0 | 18.5 | 70 | 82 | 5.7 | 1.0 | 0.7 | 1PH / 115/208-230V |
| 5K122MT3 | 18.5 | 70 | 82 | 5.7 | 2.0 | 1.5 | 3PH / 208-230/460V |

Note: All motors are rated at 3450 rpm. All models listed are equipped with a Viton®/Carbon/Ceramic chemical resistant seal. Buna-N and high temperature seals are also available.

ABOUT CAT PUMPS

Proven Quality, Customer Focused

Cat Pumps is the world leader in the design, manufacture and marketing of the most dependable high-pressure positive displacement reciprocating triplex pumps and systems in the market. Our mission to exceed customer expectations for quality, reliability, availability, delivery, technical expertise and aftermarket support to assure the best value in all the industries served.

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