

# 850 SERIES – Model 3X2-8



## Model 3X2-8 – Frame-Mounted Configuration

### PERFORMANCE

#### 850FM/3X2-8/2P

**Max. Flow Rate:** 348 gpm

**Max. Head:** 253 ft.

**Max. Working Temperature:** 120° F

**Max. Working Pressure:** 175 psi

**Max. Rated Speed:** 3600 RPM

**Max. Particle Size:** 0.28" Diameter

**Hydrotest Pressure:** 263 psi

#### 850FM/3X2-8/4P

**Max. Flow Rate:** 185 gpm

**Max. Head:** 65 ft.

**Max. Working Temperature:** 120° F

**Max. Working Pressure:** 175 psi

**Max. Rated Speed:** 1800 RPM

**Max. Particle Size:** 0.28" Diameter

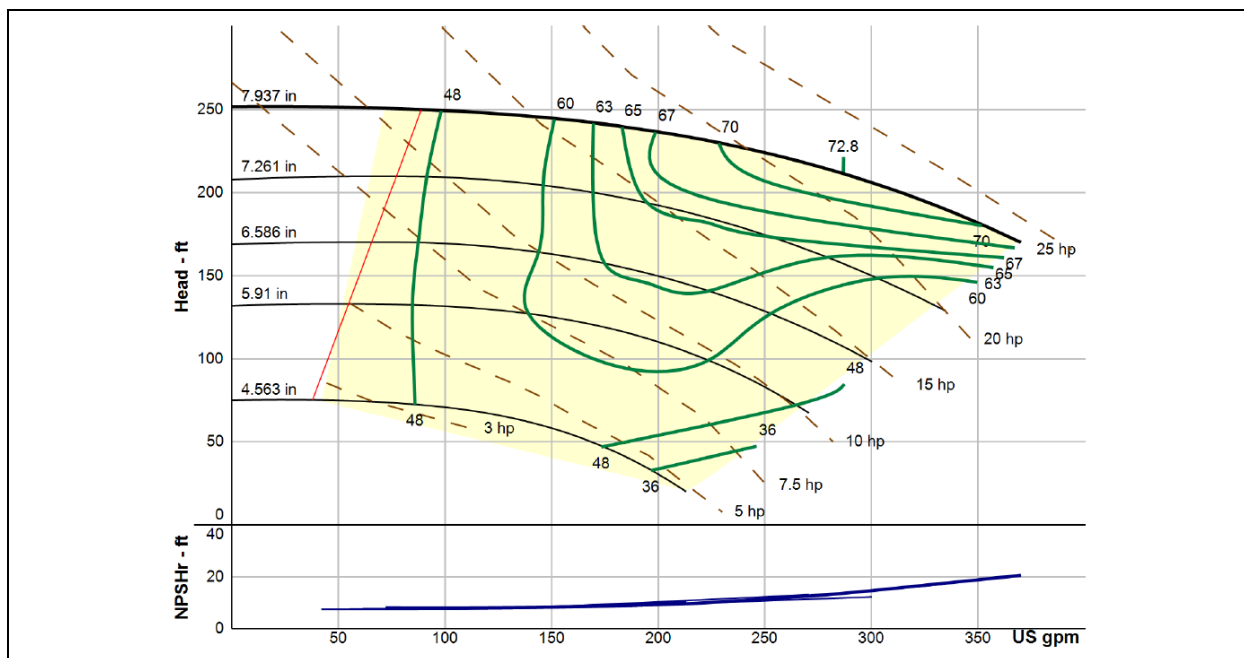
**Hydrotest Pressure:** 263 psi

|                                  |                        |                              |
|----------------------------------|------------------------|------------------------------|
| 850 Series Model: 850FM/3X2-8/2P | PEI <sub>CL</sub> 0.91 | Impeller Diameter: 7.937 in. |
| 850 Series Model: 850FM/3X2-8/4P | PEI <sub>CL</sub> 0.90 | Impeller Diameter: 7.937 in. |

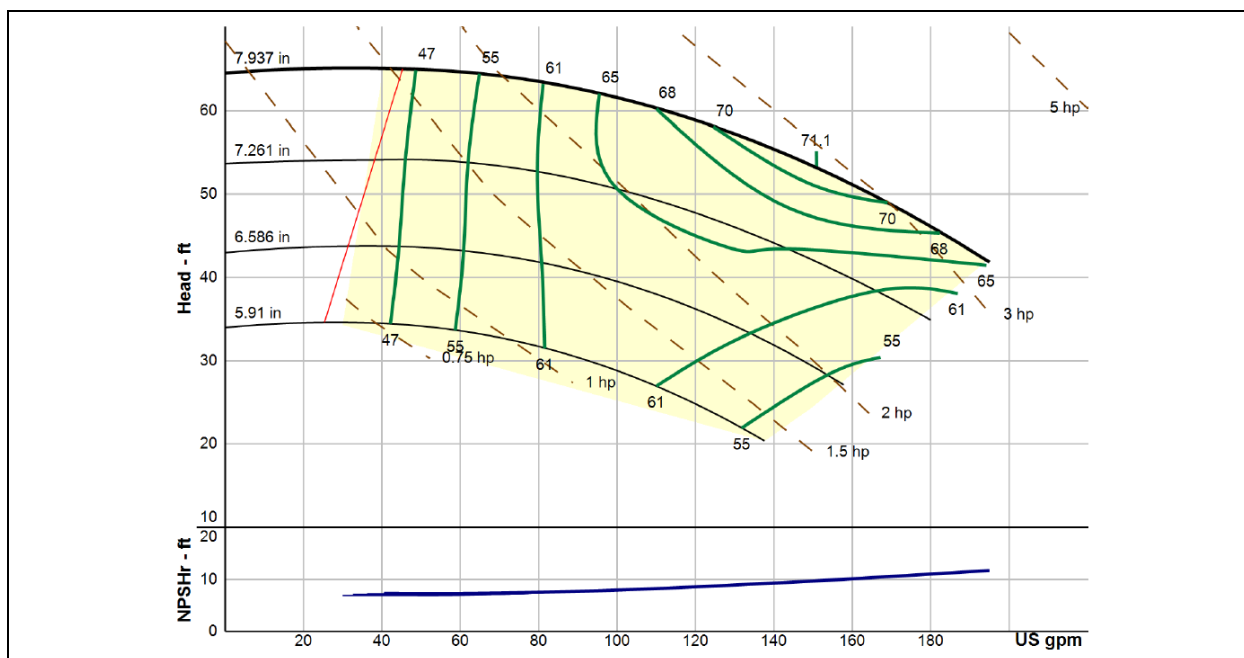
# 850 SERIES – Model 3X2-8



## PERFORMANCE CURVE – 850FM/3X2-8/2P, 3450 RPM



## PERFORMANCE CURVE – 850FM/3X2-8/4P, 1750 RPM

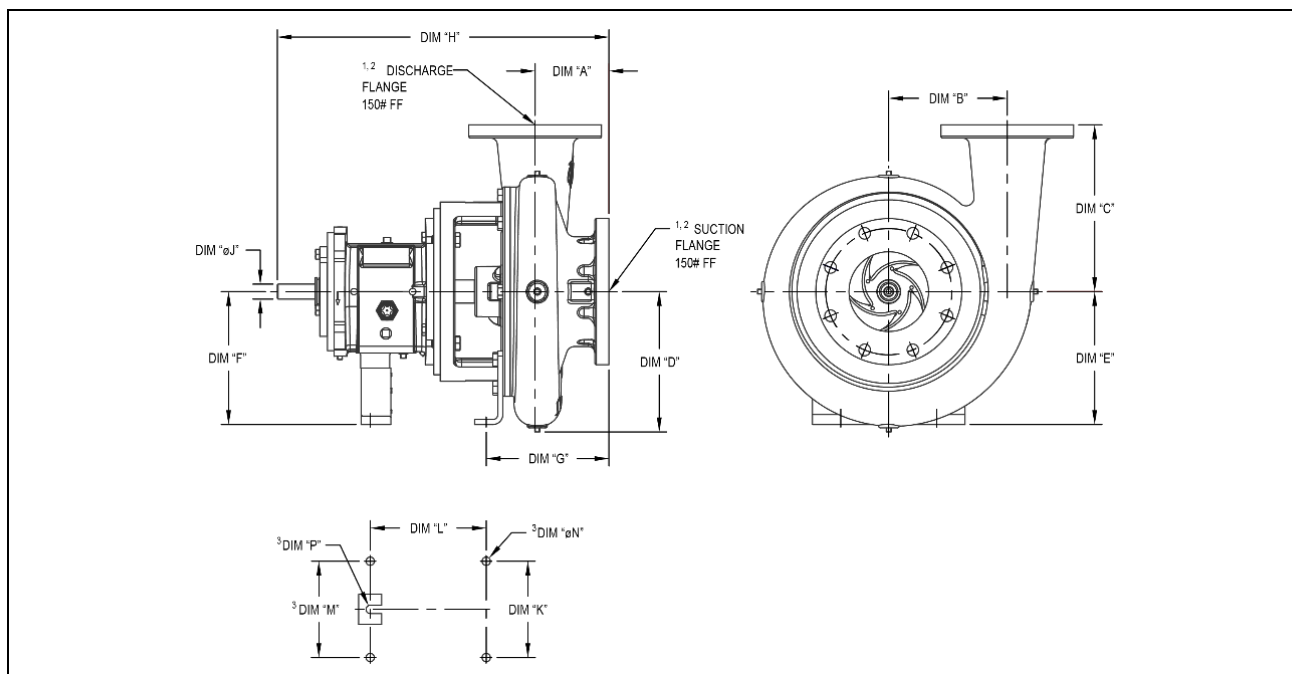


|                                  |                        |                              |
|----------------------------------|------------------------|------------------------------|
| 850 Series Model: 850FM/3X2-8/2P | PEI <sub>CL</sub> 0.91 | Impeller Diameter: 7.937 in. |
| 850 Series Model: 850FM/3X2-8/4P | PEI <sub>CL</sub> 0.90 | Impeller Diameter: 7.937 in. |

# 850 SERIES – Model 3X2-8



## DIMENSIONS (INCHES)



| Motor Frame | Suction | Discharge | DIM "A" | DIM "B" | DIM "C" | DIM "D" | DIM "E" | DIM "F" | DIM "G" | DIM "H" | Dim "ØJ" | DIM "K" | DIM "L" | DIM "M" | Dim "ØN" | DIM "P" |
|-------------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|----------|---------|
| PFS         | 3.00    | 2.00      | 3.63    | 4.75    | 6.13    | 6.18    | 6.99    | 5.25    | 6.26    | 16.21   | 0.88     | 6.19    | 3.71    | N/A     | 0.44     | R.313   |

<sup>1</sup>150# Flange is dimensionally identical to a 125# Flange

<sup>2</sup>Bolt holes straddle pump centerlines

<sup>3</sup>Mounting bolt hold patterns vary with power frames used.

Pumps fitted with small power frames use 3 holes, while pumps fitted with medium or large power frames use 4 holes.

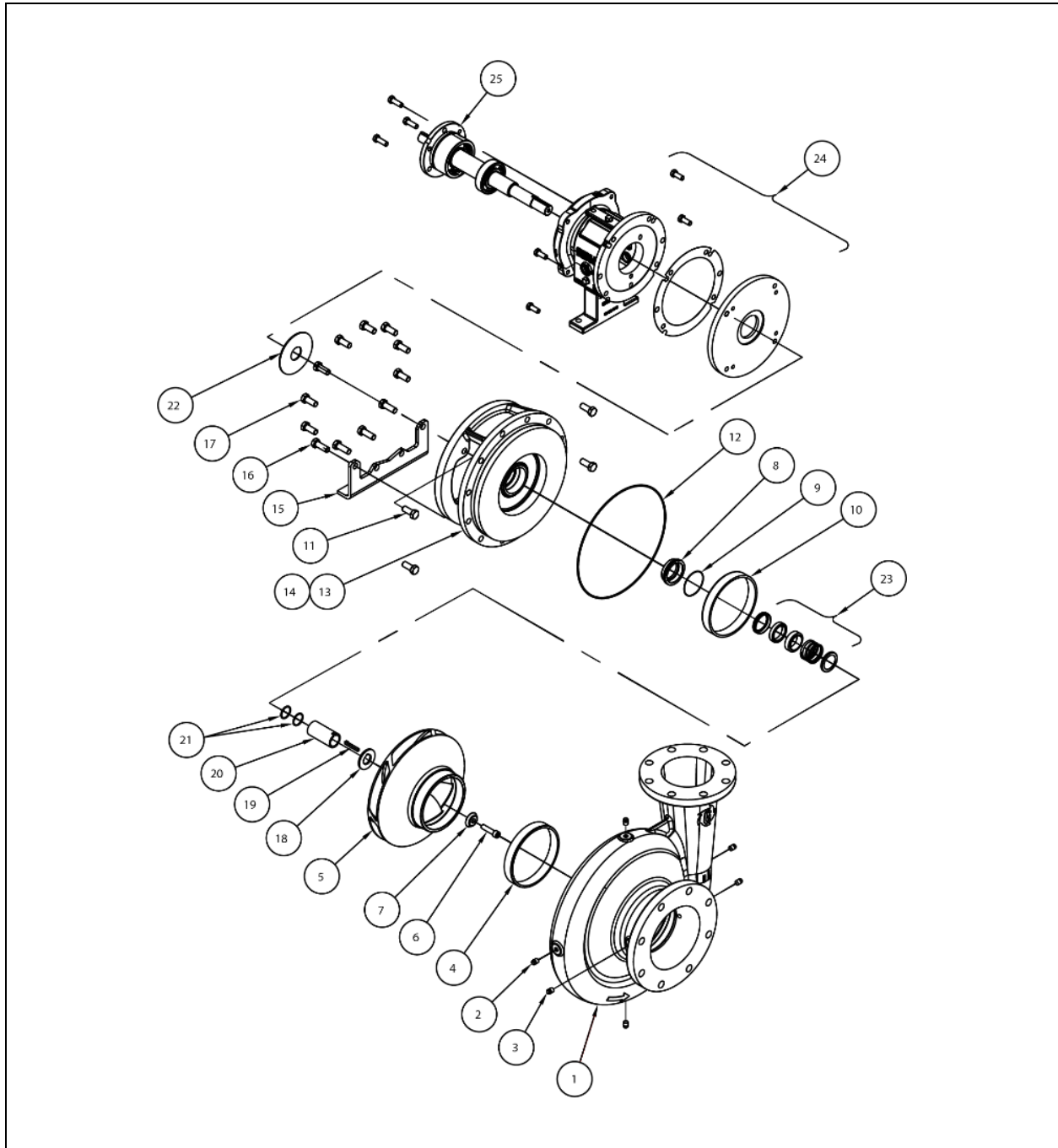
LG1861 REV. A

|                                  |                        |                              |
|----------------------------------|------------------------|------------------------------|
| 850 Series Model: 850FM/3X2-8/2P | PEI <sub>CL</sub> 0.91 | Impeller Diameter: 7.937 in. |
| 850 Series Model: 850FM/3X2-8/4P | PEI <sub>CL</sub> 0.90 | Impeller Diameter: 7.937 in. |

# 850 SERIES – Model 3X2-8



## EXPLODED VIEW



LG1819 REV. A

|                                  |                        |                              |
|----------------------------------|------------------------|------------------------------|
| 850 Series Model: 850FM/3X2-8/2P | PEI <sub>CL</sub> 0.91 | Impeller Diameter: 7.937 in. |
| 850 Series Model: 850FM/3X2-8/4P | PEI <sub>CL</sub> 0.90 | Impeller Diameter: 7.937 in. |

# 850 SERIES – Model 3X2-8



## PARTS LISTING

| Compatible Frame Family  |                                                    |      | PFS (POWER FRAME SMALL)          | Material of Construction       |
|--------------------------|----------------------------------------------------|------|----------------------------------|--------------------------------|
| Item                     | Description                                        | Qty. | P/N                              |                                |
| <b>Case Kit</b>          |                                                    |      |                                  |                                |
| 1                        | Case Kit <sup>1, 3</sup>                           | 1    | 3078409K                         | Cast Iron, ASTM A48 Class 30   |
| 2                        | Pipe Plugs<br>1/4" MNPT                            | 5    | 31005911                         | Steel                          |
| 3                        | Pipe Plugs<br>1/2" MNPT                            |      |                                  |                                |
| 4                        | Case Wear Ring                                     | 1    | 8015100                          | Bismuth Tin Bronze (Lead Free) |
| <b>Impeller Kit</b>      |                                                    |      |                                  |                                |
| 5                        | Impeller, Only <sup>4</sup>                        | 1    | 5100200                          | Aluminum Bronze, ASTM B148     |
|                          | Impeller, Kit <sup>4, 5</sup>                      | 1    | 5100200K                         | Aluminum Bronze, ASTM B148     |
| <b>Back Pull Out Kit</b> |                                                    |      |                                  |                                |
| 6                        | Impeller Bolt<br>SHCS, 3/8-16 x 1.25 Lg            | 1    | ALLEN37516X125U                  | Steel                          |
| 7                        | Impeller Washer                                    | 1    | 14412209                         | 300 Series Stainless Steel     |
| 8                        | Seal Adapter Kit <sup>7</sup>                      |      |                                  |                                |
| 9                        | Seal Adapter O-Ring                                |      |                                  |                                |
| 10                       | Bracket Wear Ring                                  |      |                                  |                                |
| 11                       | Bracket/Power Frame Bolts<br>HHCS, 3/8-16 x .75 Lg | 4    | S01C375750WA2A2                  | Steel – Grade 5                |
| 12                       | Case/Bracket O-Ring<br>-171 Buna                   | 1    | 47017108                         | Steel – Grade 5                |
| 13                       | Bracket <sup>2, 3</sup>                            | 1    | 24341EFGK                        | Cast Iron, ASTM A48 Class 30   |
| 14                       | Bracket Plug<br>1/2" MNPT                          |      |                                  |                                |
| 15                       | Foot, Bracket                                      | 1    | 2049616                          | Steel                          |
| 16                       | Case/Bracket Bolts<br>HHCS, 3/8-16 x 1.00 Lg       | 3    | 14129423                         | Steel – Grade 5                |
| 17                       | Case/Bracket Bolts<br>HHCS, 3/8-16 x .75 Lg        | 5    | S01C375750WA2A2                  | Steel – Grade 5                |
| 18                       | Impeller Spacer                                    |      |                                  |                                |
| 19                       | Impeller Key                                       | 1    | 14412407                         | Steel                          |
| 20                       | Sleeve, Kit <sup>6</sup>                           | 1    | 8222400K                         | Bismuth Tin Bronze (Lead Free) |
| 21                       | Sleeve O-Ring<br>-022 Buna                         | 1    | 47002209                         | Buna-N                         |
| 22                       | Deflector                                          | 1    | 22020408                         | Neoprene                       |
| 23                       | Mechanical Seal                                    | 1    | See mechanical seal list for P/N |                                |
| 24                       | Assembly, Power Frame                              | 1    | PFS-850-K                        |                                |
| 25                       | Assembly, Rotating                                 | 1    | 24000-04-41A-RO                  |                                |

LG1860 REV. B

<sup>1</sup>Case Kit includes item 2, 3, 4, 12, and 17

<sup>2</sup>Bracket Kit includes item 11, 14 and 22

<sup>3</sup>Part is available with epoxy coating of interior or interior + exterior. Specified part number is for uncoated part, contact factory for part numbers.

<sup>4</sup>Part is available with epoxy coating. Append 'PC' to the indicated part number when referring to the coated part

<sup>5</sup>Impeller Kit includes item 6, 7, 10, 18 and 19

<sup>6</sup>Sleeve Kit includes item 21

<sup>7</sup>Seal Adapter Kit includes item 9

|                                         |                              |                                     |
|-----------------------------------------|------------------------------|-------------------------------------|
| <b>850 Series Model: 850FM/3X2-8/2P</b> | <b>PEI<sub>CL</sub> 0.91</b> | <b>Impeller Diameter: 7.937 in.</b> |
| <b>850 Series Model: 850FM/3X2-8/4P</b> | <b>PEI<sub>CL</sub> 0.90</b> | <b>Impeller Diameter: 7.937 in.</b> |

