

# SFI Series Pump - NEMA 12 | Submittal Data

Submittal No: 301-S093 | Model: SFI3007D | RPM: 1760 | HP: 5HP | TEFC | Effective: January 27, 2020 | Supersedes: NEW

JOB: \_\_\_\_\_

REPRESENTATIVE: \_\_\_\_\_

ENGINEER: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

## PRODUCT DATA

ITEM NO. \_\_\_\_\_

DOE BASIC MODEL NO. SFI3007D-A-4P-PD

MODEL NO. \_\_\_\_\_ VOLTAGE \_\_\_\_\_

PEI<sub>VL</sub> 0.47 HI ENERGY RATING 53

IMPELLER DIA. \_\_\_\_\_ WEIGHT \_\_\_\_\_

GPM \_\_\_\_\_ PUMP/MOTOR \_\_\_\_\_

HEAD/FT \_\_\_\_\_ FREQUENCY \_\_\_\_\_

RPM 1760 HP 5 PHASE \_\_\_\_\_

NSF 61 CERTIFIED YES NO

## DIMENSIONS

Model No. | 3007D

Flange Size (Suction x Discharge) | 4 x 3 (102 x 76)

| HORSEPOWER |                                   | 3           |
|------------|-----------------------------------|-------------|
| TEFC       | MOTOR FRAME                       | 182T        |
|            | G MAX                             | 18.19 (462) |
|            | MAXIMUM ASSEMBLY WEIGHT LBS. (KG) | 344 (156)   |
| A          | ANSI Class 125: 4.72 (120)        |             |
|            | ANSI Class 250: 5.04 (128)        |             |
| B          | ANSI Class 125: 9.00 (229)        |             |
|            | ANSI Class 250: 9.37 (238)        |             |
| C          | 16.18 (411)                       |             |
| D          | 41.5 (1054)                       |             |
| E          | ANSI Class 125: 1.41 (36)         |             |
|            | ANSI Class 250: 1.09 (28)         |             |
| F          | 11.28 (286)                       |             |
| J          | ANSI Class 125: 23.97 (608)       |             |
|            | ANSI Class 250: 24.29 (617)       |             |
| K          | 14.68 (373)                       |             |
| N          | 2.00 (51)                         |             |
| P          | 37.5 (953)                        |             |

(Dimensions are for NEMA TEFC)

50 Cycle Performance Curves attached when applicable

English dimensions are in inches. Metric dimensions are in millimeters.

Metric data is presented in ( ).

Do not use for construction purposes unless certified.

## OPERATING SPECIFICATIONS

|          | FLANGE         | PRESSURE              | TEMPERATURE   |
|----------|----------------|-----------------------|---------------|
| STANDARD | ANSI Class 125 | 175 PSIG* (1210 KPA)  | 250°F (120°C) |
| OPTIONAL | ANSI Class 250 | 300 PSIG** (2070 KPA) | 250°F (120°C) |

Motors: All NEMA Standard (T Frame)

\* In accordance with ANSI Standard B16.1 Class 125

\*\* In accordance with ANSI Standard B16.1 Class 250



| MATERIALS OF CONSTRUCTION |               |              | CASING                                    | COVER                                | IMPELLER                                | WEAR RING                   | SHAFT        | SHAFT SLEEVE                       | MECHANICAL SEAL                              | SEAL FLUSH LINE ASSEMBLY |
|---------------------------|---------------|--------------|-------------------------------------------|--------------------------------------|-----------------------------------------|-----------------------------|--------------|------------------------------------|----------------------------------------------|--------------------------|
| STANDARD CONSTRUCTION     | BRONZE FITTED | 125# FLANGE  | Cast Iron ASTM A48/A48M-03 Class 30A      | Cast Iron ASTM A48/A48M-03 Class 30A | Bronze ASTM B584 ALLOY C83600 or C84400 | N/A                         | Carbon Steel | Bronze ASTM B584-98A C92200        | Ceramic/EPT                                  | N/A                      |
|                           |               | 250# FLANGE  | Ductile Iron ASTM A536-84 Grade 65-45-12  | Cast Iron ASTM A48/A48M-03 Class 30A | Bronze ASTM B584 ALLOY C83600 or C84400 | N/A                         | Carbon Steel | Bronze ASTM B584-98A C92200        | Ceramic/EPT                                  | N/A                      |
| OPTIONAL                  |               | 125# OR 250# | N/A                                       | N/A                                  | Stainless Steel ASTM A351/A 351M-08     | Bronze ASTM B584-98A C92200 | N/A          | Stainless Steel TYPE 303 ASTM A276 | Tyngsten Carbide /EPT or Silicon-Carbide/EPT | Copper & Brass C3600     |
| STANDARD CONSTRUCTION     | NSF 61        | 125# FLANGE  | Cast Iron ASTM A48/A48M-03 Class 30A      | Cast Iron ASTM A48/A48M-03 Class 30A | Stainless Steel ASTM A351/A 351M-08     | N/A                         | Carbon Steel | Bronze ASTM B584-98A C92200        | Ceramic/EPT                                  | Copper & Brass C3600     |
|                           |               | 250# FLANGE  | Ductile Iron ASTM A536-84 Grade: 65-45-12 | Cast Iron ASTM A48/A48M-03 Class 30A | Stainless Steel ASTM A351/A 351M-08     | N/A                         | Carbon Steel | Bronze ASTM B584-98A C92200        | Ceramic/EPT                                  | Copper & Brass C3600     |
| OPTIONAL                  |               | 125# OR 250# | N/A                                       | N/A                                  | N/A                                     | Bronze ASTM B584-98A C92200 | N/A          | N/A                                | N/A                                          | N/A                      |

N/A - Not Available

DRIVE DATA

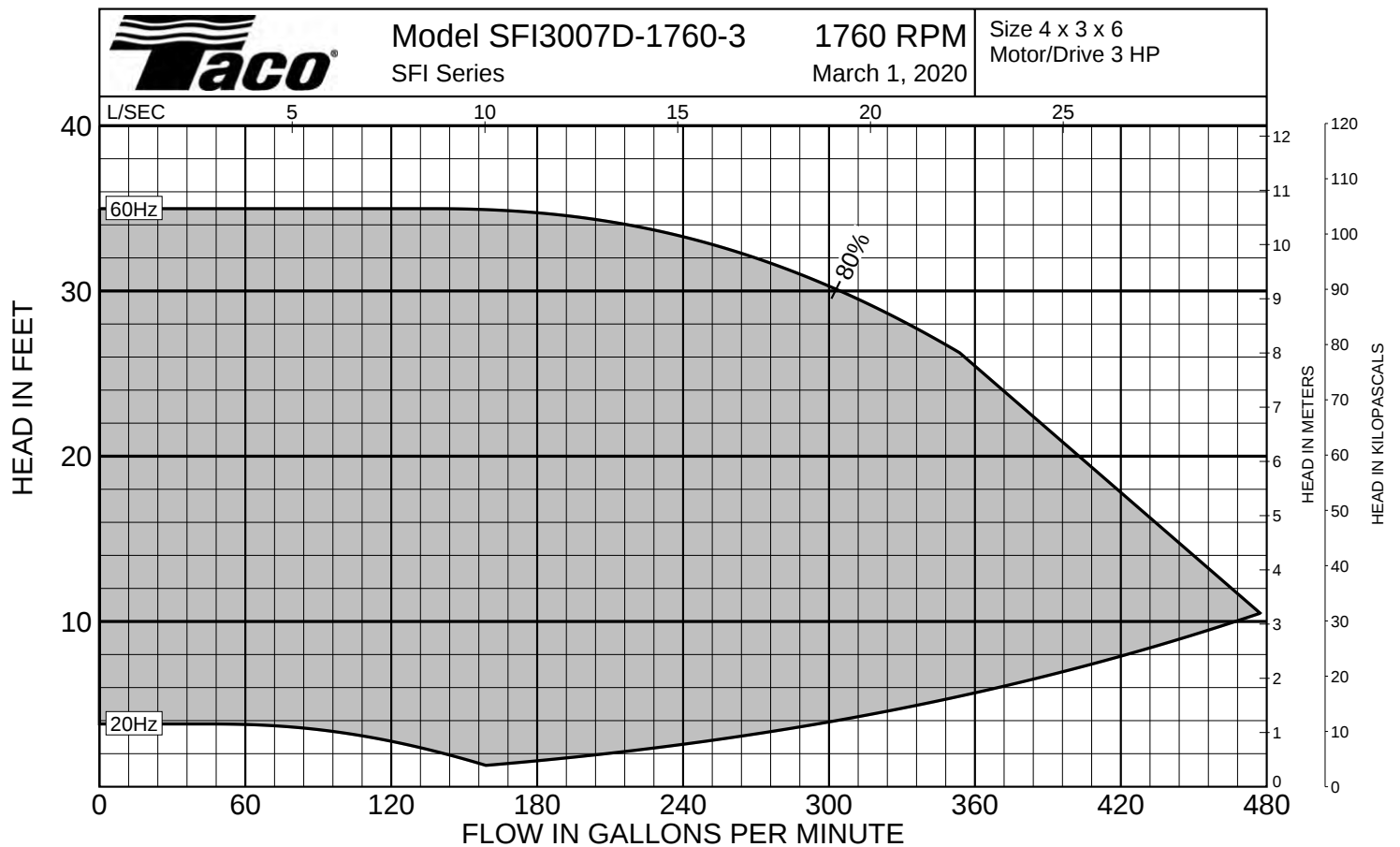
|                            |                                                                                                                                                                                                                                                                                                                                    |                     |            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|
| PROTOCOLS (Standard)       | BACnet, Modbus RTU, N2 Metasys, FLN Apogee, FC Protocol                                                                                                                                                                                                                                                                            |                     |            |
| PROTOCOLS (Optional)       | LonWorks®                                                                                                                                                                                                                                                                                                                          | DeviceNet           | Profibus   |
| ENCLOSURE                  | NEMA Type 12 / IP55                                                                                                                                                                                                                                                                                                                |                     |            |
| I/O (Standard)             | 6 Digital Inputs / 2 Digital Outputs<br>1 Analog Current Output / 2 Analog Inputs<br>2 Pulse Inputs<br>2 Form C Relays                                                                                                                                                                                                             |                     |            |
| ADDITIONAL CONTROL OPTIONS | None                                                                                                                                                                                                                                                                                                                               | General Purpose I/O | Relay Card |
| ELECTRICAL CONFIGURATION   | Basic (no disconnect)    Mechanical disconnect    Fused disconnect<br>2 Contactor Bypass - Drive Fusing & Main Disconnect (5kA SCCR)<br>2 Contactor Bypass - Main Fusing & Disconnect (100kA SCCR)<br>3 Contactor Bypass - Drive Fusing & Main Disconnect (5kA SCCR)<br>3 Contactor Bypass - Main Fusing & Disconnect (100kA SCCR) |                     |            |
|                            | 24VDC Supply    Analog I/O                                                                                                                                                                                                                                                                                                         |                     |            |
| EMC/RFI CONTROL            | Intergated filter designed to meet EN61800-3                                                                                                                                                                                                                                                                                       |                     |            |
| HARMONIC SUPPRESSION       | Dual DC-link chokes (Equivalent: 5% AC line reactor)<br>Supporting IEEE 519-1992 requirements                                                                                                                                                                                                                                      |                     |            |
| COOLING                    | Fan-cooled through back channel                                                                                                                                                                                                                                                                                                    |                     |            |
| AMBIENT TEMPERATURE        | -10°C to 45°C up to 1000 meters above sea level<br>-14°F to 113°F up to 3300 feet above sea level                                                                                                                                                                                                                                  |                     |            |

DRIVE DIMENSIONS

| HP RANGE          |                      |      | FRAME               | DIMENSIONS - IN (MM) |            |            |
|-------------------|----------------------|------|---------------------|----------------------|------------|------------|
| 208V              | 460V                 | 575V |                     | T                    | U          | V          |
| 1.5 (1.1) - 5 (4) | 1.5 (1.1) - 10 (7.5) |      | WITHOUT BYPASS (A5) | 16.5 (420)           | 9.5 (242)  | 9.6 (243)  |
|                   |                      |      | WITH BYPASS (A5)    | 18.9 (478)           | 19.3 (487) | 10.3 (262) |



COMMENTS



Curves based on Clear Water @ 60F with a Specific Gravity of 1.0