

# SCI Series Pump - NEMA 12 | Submittal Data

Submittal No: 301-S007 | Model: SCI1507D | RPM: 3500 | HP: 7.5HP | TEFC | Effective: January 27, 2020 | Supersedes: NEW

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

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

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

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

## PRODUCT DATA

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

DOE BASIC MODEL NO. \_\_\_\_\_ SCI1507D-A-2P-PD

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

PEI<sub>VL</sub> \_\_\_\_\_ 0.44 \_\_\_\_\_ HI ENERGY RATING \_\_\_\_\_ 56

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

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

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

RPM \_\_\_\_\_ 3500 \_\_\_\_\_ HP \_\_\_\_\_ 7.5 \_\_\_\_\_ PHASE \_\_\_\_\_

NSF 61 CERTIFIED YES NO

## DIMENSIONS

Model No. | 1507D

Flange Size (Suction x Discharge) | 2 ½ x 1 ½ ( 38 x 64)

| HORSEPOWER |                                   | 7.5         |
|------------|-----------------------------------|-------------|
| TEFC       | MOTOR FRAME                       | 213JM       |
|            | G MAX                             | 16.64 (423) |
|            | MAXIMUM ASSEMBLY WEIGHT LBS. (KG) | 256 (116)   |
|            |                                   |             |
| A          | ANSI Class 125:                   | 3.75 (95)   |
|            | ANSI Class 250:                   | 4.06 (103)  |
| B          | ANSI Class 125:                   | 6.75 (171)  |
|            | ANSI Class 250:                   | 7.00 (178)  |
| C (MOTOR)  |                                   | 8.5 (216)   |
| D          |                                   | 8.0 (203)   |
| E          |                                   | 5.25 (133)  |
| F          |                                   | 6.3 (160)   |
| H (PUMP)   |                                   | 8.34 (212)  |
| J          |                                   | 2.76 (70)   |
| K          | ANSI Class 125:                   | 2.37 (60)   |
|            | ANSI Class 250:                   | 2.68 (68)   |
| L          |                                   | 6.45 (164)  |
| N (PUMP)   |                                   | 0.56 (14)   |
| P          |                                   | 0.41 (10)   |
| R          |                                   | 5.5 (140)   |
| S          | ANSI Class 125:                   | 8.08 (205)  |
|            | ANSI Class 250:                   | 8.39 (213)  |

(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.

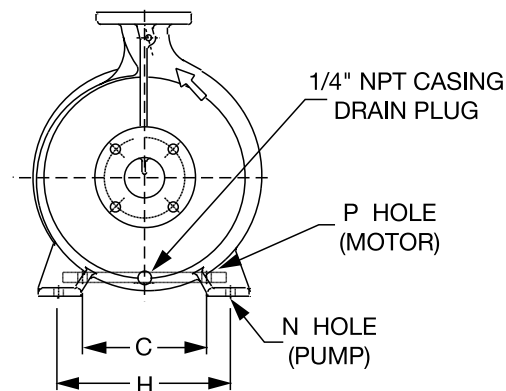
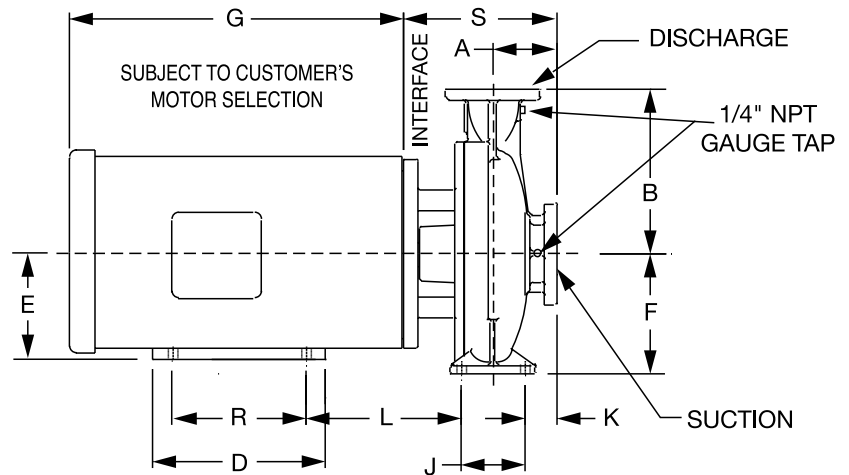
## OPERATING SPECIFICATIONS

|          | 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 (JM 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                      |

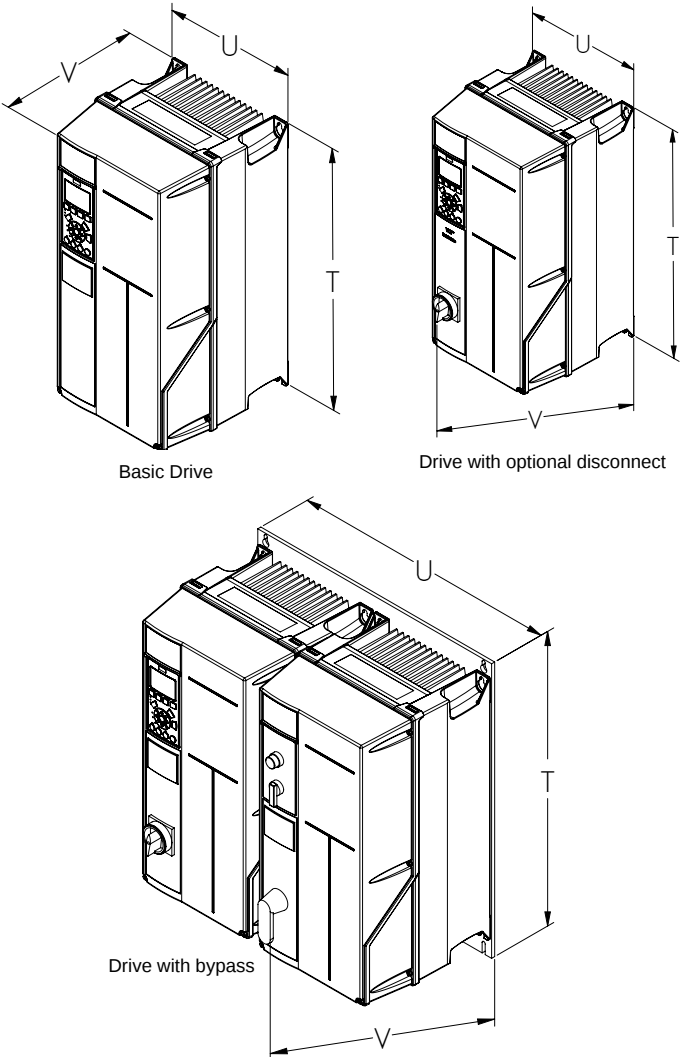
N/A - Not Available

DRIVE DATA

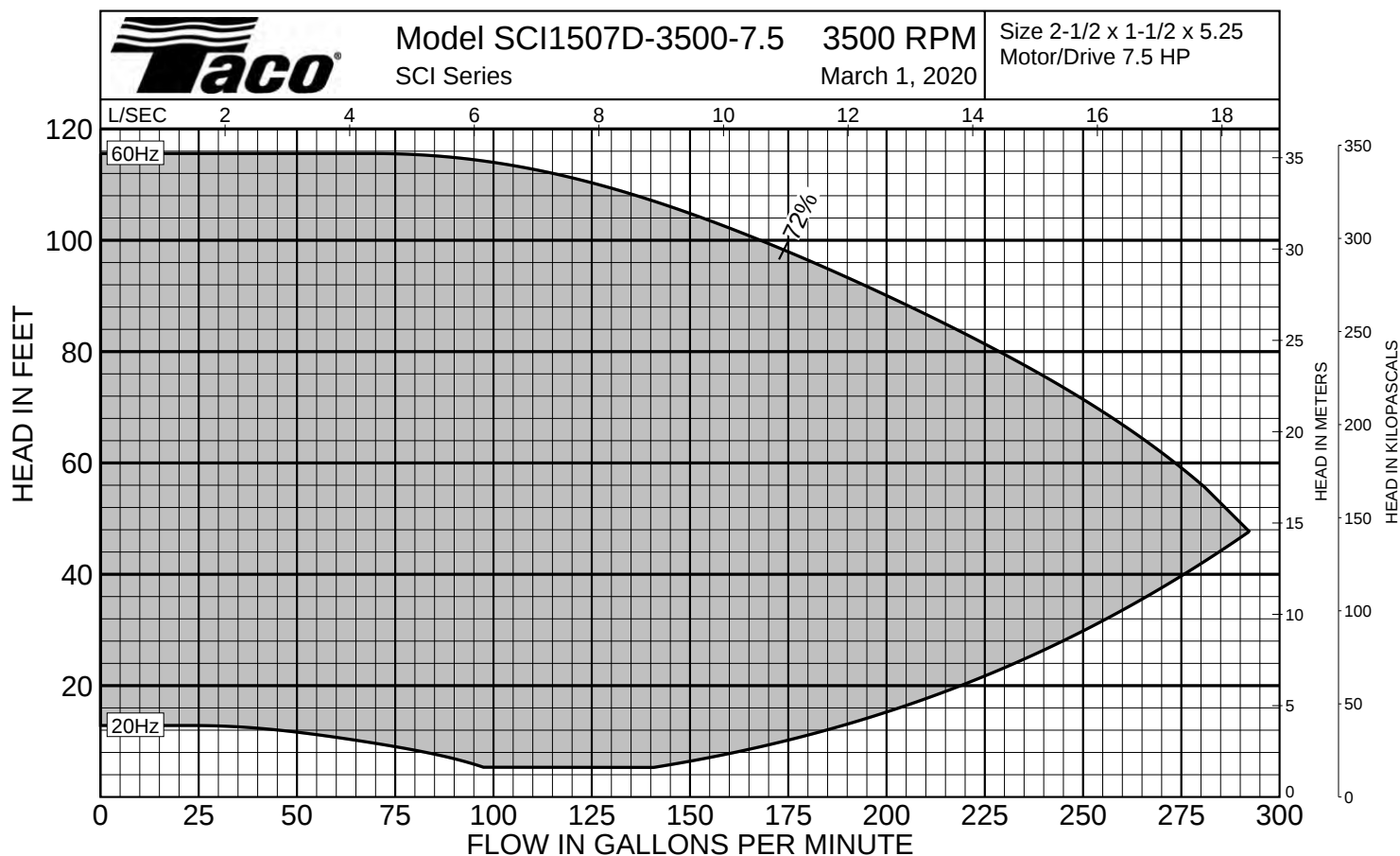
|                            |                                                                                                                                                                                                                                                                                                                                    |                     |            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|
| 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) 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) |
| 7.5 (5.5) - 15 (11) | 15 (11) - 25 (18)    |      | WITHOUT BYPASS (B1) | 18.9 (480)           | 9.5 (242)  | 12.1 (308) |
|                     |                      |      | WITH BYPASS (B1)    | 21.5 (546)           | 19.1 (485) | 12.9 (327) |



COMMENTS



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