

# SCI Series Pump - NEMA 12 | Submittal Data

Submittal No: 301-S640 | Model: SCI2513D | RPM: 1760 | HP: 25HP | TEFC | Effective: August 23, 2021 | Supersedes: NEW

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

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

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

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

## PRODUCT DATA

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

DOE BASIC MODEL NO. \_\_\_\_\_ SCI2513D-A-4P-PD

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

PEI<sub>VL</sub> \_\_\_\_\_ 0.45 \_\_\_\_\_ HI ENERGY RATING \_\_\_\_\_ 55

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

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

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

RPM \_\_\_\_\_ 1760 \_\_\_\_\_ HP \_\_\_\_\_ 25 \_\_\_\_\_ PHASE \_\_\_\_\_

NSF 61 CERTIFIED YES NO

## DIMENSIONS

Model No. | 2513D

Flange Size (Suction x Discharge) | 3 x 2 1/2 (76 x 64)

| HORSEPOWER |                                   | 25          |
|------------|-----------------------------------|-------------|
| TEFC       | MOTOR FRAME                       | 284JM       |
|            | G MAX                             | 23.38 (594) |
|            | MAXIMUM ASSEMBLY WEIGHT LBS. (KG) | 739 (335)   |
| A          | ANSI Class 125:                   | 4.72 (120)  |
|            | ANSI Class 250:                   | 5.09 (129)  |
| B          | ANSI Class 125:                   | 12.23 (311) |
|            | ANSI Class 250:                   | 12.54 (319) |
| C (MOTOR)  |                                   | 11.0 (279)  |
| D          |                                   | 10.75 (273) |
| E          |                                   | 7.00 (178)  |
| F          |                                   | 9.84 (250)  |
| H (PUMP)   |                                   | 12.40 (315) |
| J          |                                   | 4.72 (120)  |
| K          | ANSI Class 125:                   | 2.36 (60)   |
|            | ANSI Class 250:                   | 2.73 (69)   |
| L          |                                   | 8.26 (210)  |
| N (PUMP)   |                                   | 0.56 (14)   |
| P          |                                   | 0.53 (13)   |
| R          |                                   | 9.5 (241)   |
| S          | ANSI Class 125:                   | 10.34 (263) |
|            | ANSI Class 250:                   | 10.71 (272) |

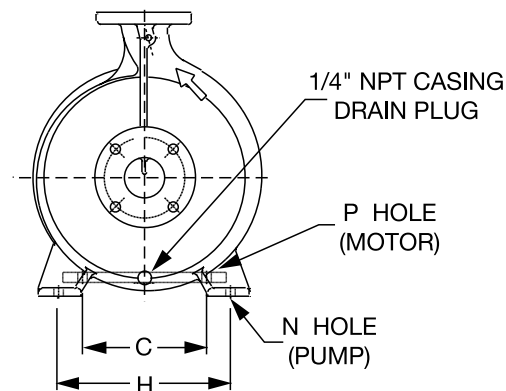
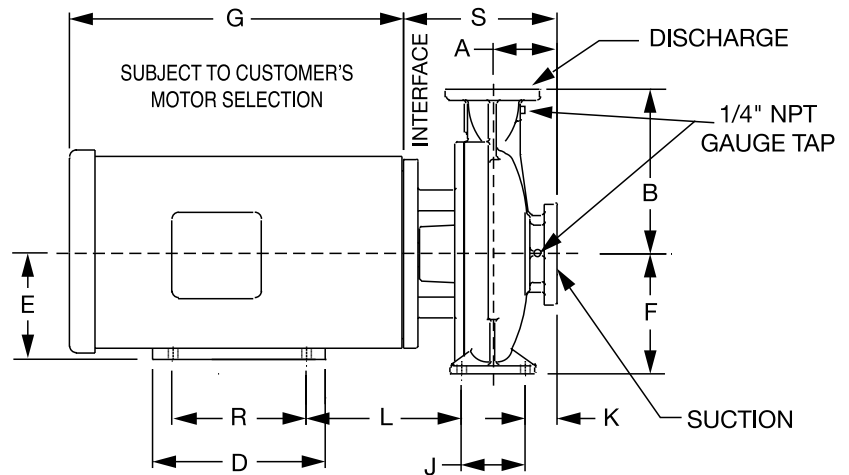
## OPERATING SPECIFICATIONS

|          | 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



(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 ( ).

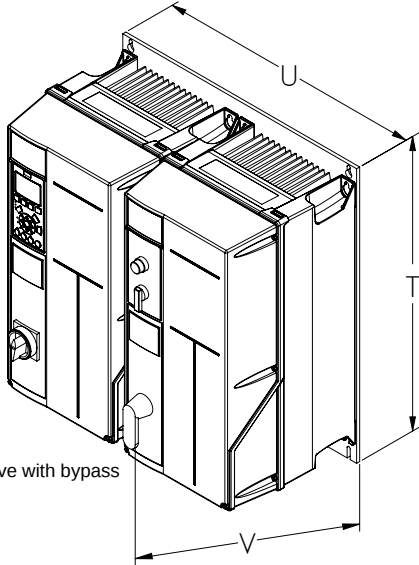
Do not use for construction purposes unless certified.

| 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

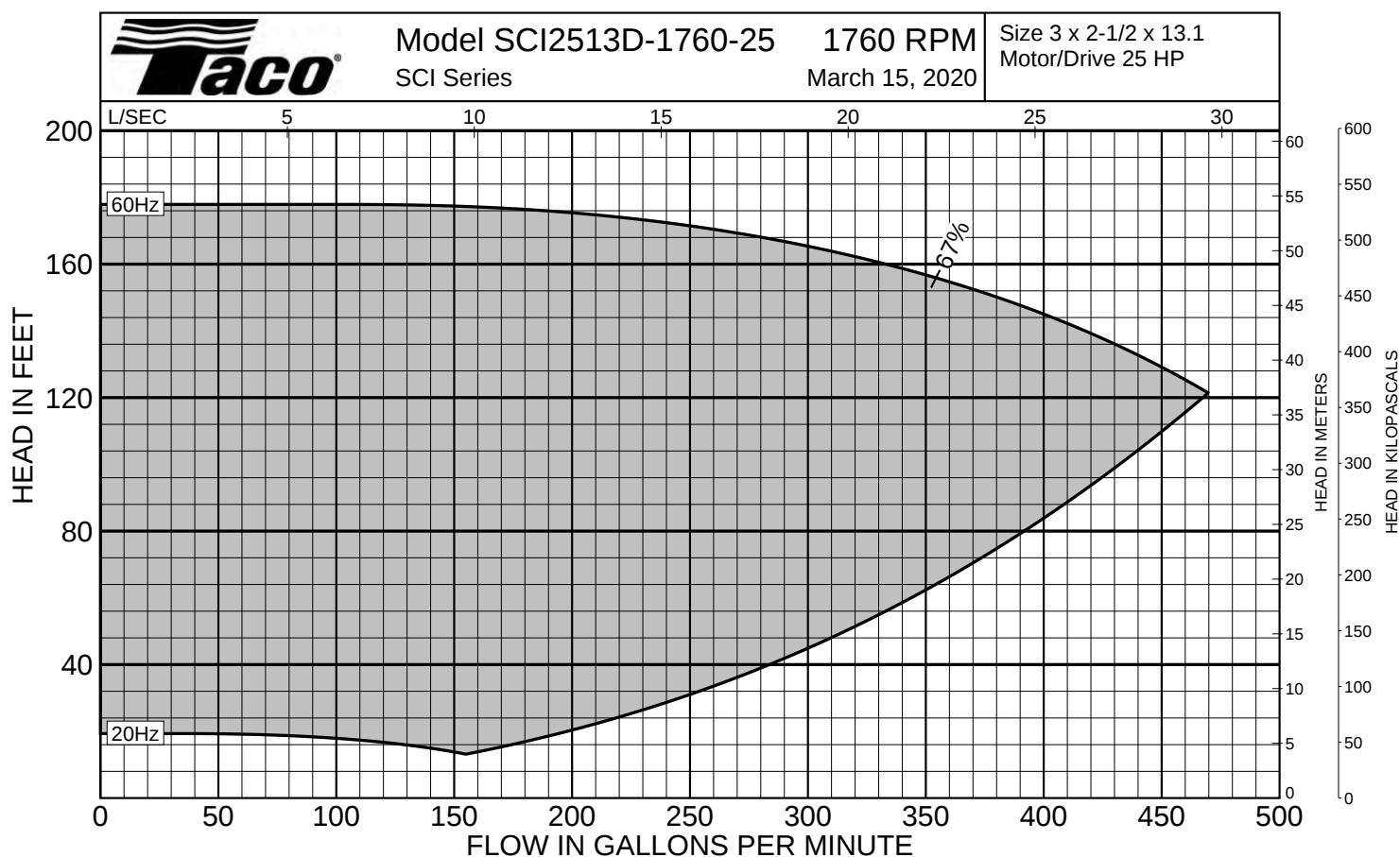
|                            |                                                                                                                                                                                                                                                                                                                                    |                     |            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|
| 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) |
| 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) |
| 20 (15) - 20 (15)   | 30 (22) - 40 (30)    |      | WITHOUT BYPASS (B2) | 25.6 (650)           | 9.5 (242)  | 12.1 (308) |
|                     |                      |      | WITH BYPASS (B2)    | 28.2 (716)           | 19.1 (485) | 12.9 (327) |
| 25 (18) - 40 (30)   | 50 (37) - 75 (55)    |      | WITHOUT BYPASS (C1) | 26.9 (680)           | 12.1 (308) | 14.1 (359) |
|                     |                      |      | WITH BYPASS (C1)    | 29.9 (761)           | 24.4 (619) | 14.9 (379) |

COMMENTS



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