

# Submittal Data Information

## SCI Series Pumps

301-2768-C

EFFECTIVE: May 05, 2023

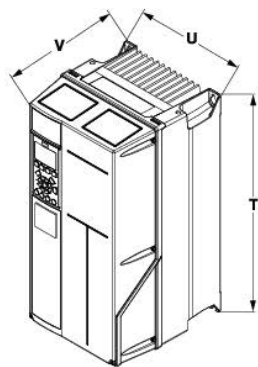
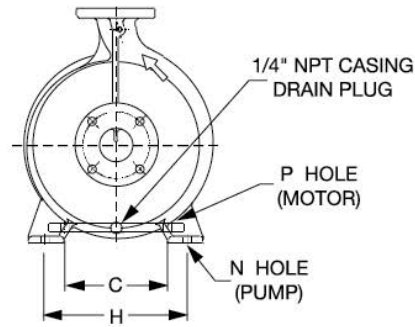
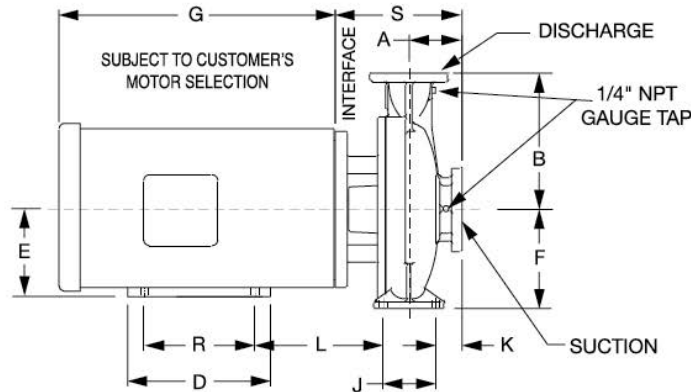
SUPERSEDES: January 27, 2020

MODEL SCI1209-1760-3

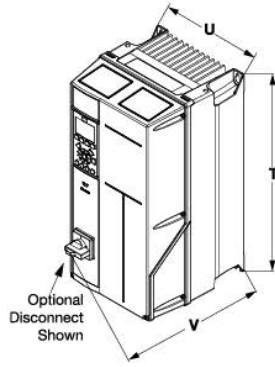
JOB: \_\_\_\_\_ ENGINEER: \_\_\_\_\_

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

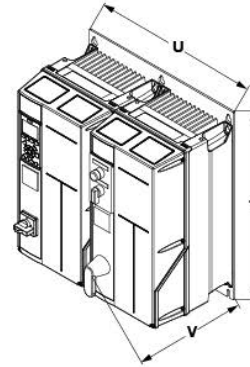
| ITEM NO.             | MODEL NO.                     | IMPELLER DIA.      | G.P.M.               | HEAD/FT | H.P.                          | ELEC. CHAR. |
|----------------------|-------------------------------|--------------------|----------------------|---------|-------------------------------|-------------|
| <b>Configuration</b> | <b>DOE Basic Model Number</b> | <b>PEI Value</b>   | <b>Energy Rating</b> |         |                               |             |
| Pump + Motor + Drive | SCI1209C-A-4P-PD              | PEI <sub>val</sub> | 0.45                 | 55      | WEIGHT _____ PUMP/MOTOR _____ |             |



Basic drive



Drive with optional disconnect



Drive with bypass

| HP Range            |                      |                      | Frame                | Dimensions - Inches (mm) |            |            |
|---------------------|----------------------|----------------------|----------------------|--------------------------|------------|------------|
| 208V                | 460V                 | 575V                 |                      | T                        | U          | V          |
| 1.5 (1.1) - 5 (4.0) | 1.5 (1.1) - 10 (7.5) | 1.5 (1.1) - 10 (7.5) | Without bypass<br>A5 | 16.5 (420)               | 9.5 (242)  | 9.6 (243)  |
| 1.5 (1.1) - 5 (4.0) | 1.5 (1.1) - 10 (7.5) | 1.5 (1.1) - 10 (7.5) | With bypass<br>A5    | 18.9 (478)               | 19.2 (487) | 10.3 (262) |

### DIMENSIONS for NEMA TEFC Type 12 / IP55

50 Cycle Performance Curves attached when applicable.

| Model No.<br>Flange Size<br>(Suction x Discharge) | Motor<br>Frame | HP<br>1760<br>RPM | A<br>ANSI<br>Class<br>125 | B<br>ANSI<br>Class<br>125 | C<br>(Motor) | D             | E             | F             | G              | H             | J            | K<br>ANSI<br>Class<br>125 | L             | N<br>(Pump)  | P            | R            | S<br>ANSI<br>Class<br>125 |
|---------------------------------------------------|----------------|-------------------|---------------------------|---------------------------|--------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------------------|---------------|--------------|--------------|--------------|---------------------------|
| 1209-3<br>1 1/2 x 1 1/4<br>(38 x 32)              | 182JM          | 3                 | 3.50<br>(89)              | 9.10<br>(231)             | 7.5<br>(191) | 6.50<br>(165) | 4.50<br>(114) | 7.09<br>(180) | 12.25<br>(311) | 9.84<br>(250) | 3.75<br>(95) | 1.63<br>(41)              | 5.84<br>(148) | 0.62<br>(16) | 0.41<br>(10) | 4.5<br>(114) | 7.84<br>(199)             |

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

|                 | BRONZE FITTED                        |                                          |                                              | ALL IRON                             |                                          |                                              |
|-----------------|--------------------------------------|------------------------------------------|----------------------------------------------|--------------------------------------|------------------------------------------|----------------------------------------------|
|                 | Standard Pump Construction           |                                          | Optional                                     | Standard Pump Construction           |                                          | Optional                                     |
|                 | 125# Flange                          | 250# Flange                              | 125# or 250#                                 | 125# Flange                          | 250# Flange                              | 125# or 250#                                 |
| Casing          | Cast Iron ASTM A48/A48M-03 Class 30A | Ductile Iron ASTM A536-84 Grade 65-45-12 | N/A                                          | Cast Iron ASTM A48/A48M-03 Class 30A | Ductile Iron ASTM A536-84 Grade 65-45-12 | N/A                                          |
| Cover           | Cast Iron ASTM A48/A48M-03 Class 30A | Ductile Iron ASTM A536-84 Grade 65-45-12 | N/A                                          | Cast Iron ASTM A48/A48M-03 Class 30A | Ductile Iron ASTM A536-84 Grade 65-45-12 | N/A                                          |
| Impeller        | Bronze ASTM B584-98A C87500          | Bronze ASTM B584-98A C87500              | N/A                                          | Cast Iron ASTM A48/A48M-03 Class 30A | Cast Iron ASTM A48/A48M-03 Class 30A     | N/A                                          |
| Wear Ring       | N/A                                  | N/A                                      | Bronze ASTM B584-98A C92200                  | N/A                                  | N/A                                      | N/A                                          |
| Shaft           | Carbon Steel AISI 1045               | Carbon Steel AISI 1045                   | Stainless Steel TYPE 416** or 410** ASTM A58 | Carbon Steel AISI 1045               | Carbon Steel AISI 1045                   | Stainless Steel TYPE 416** or 410** ASTM A58 |
| Shaft Sleeve    | Bronze ASTM B584-98A C92200          | Bronze ASTM B584-98A C92200              | Stainless Steel TYPE 303 ASTM A276           | Stainless Steel TYPE 303 ASTM A276   | Stainless Steel TYPE 303 ASTM A276       | N/A                                          |
| Mech. Seal      | Ceramic/EPT                          | Ceramic/EPT                              | C/F                                          | Ceramic/EPT                          | Ceramic/EPT                              | C/F                                          |
| Seal Flush Line | N/A                                  | N/A                                      | Copper                                       | N/A                                  | N/A                                      | Stainless Steel                              |

CF - Consult Factory

NA - Not Available

## DIMENSIONS (250 PSI)

| Model No.<br>Flange Size<br>(Suction x Discharge) | HP<br>1760<br>RPM | A<br>ANSI<br>Class<br>250 | B<br>ANSI<br>Class<br>250 | K<br>ANSI<br>Class<br>250 | S<br>ANSI<br>Class<br>250 |
|---------------------------------------------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1209-3<br>1 1/2 x 1 1/4<br>(38 x 32)              | 3                 | 3.75<br>(95)              | 9.36<br>(238)             | 1.88<br>(48)              | 8.09<br>(206)             |

## MAXIMUM ASSEMBLY WEIGHT

| Motor Frame | Weight<br>Lbs (Kg) |
|-------------|--------------------|
| 182JM       | 175 (79)           |

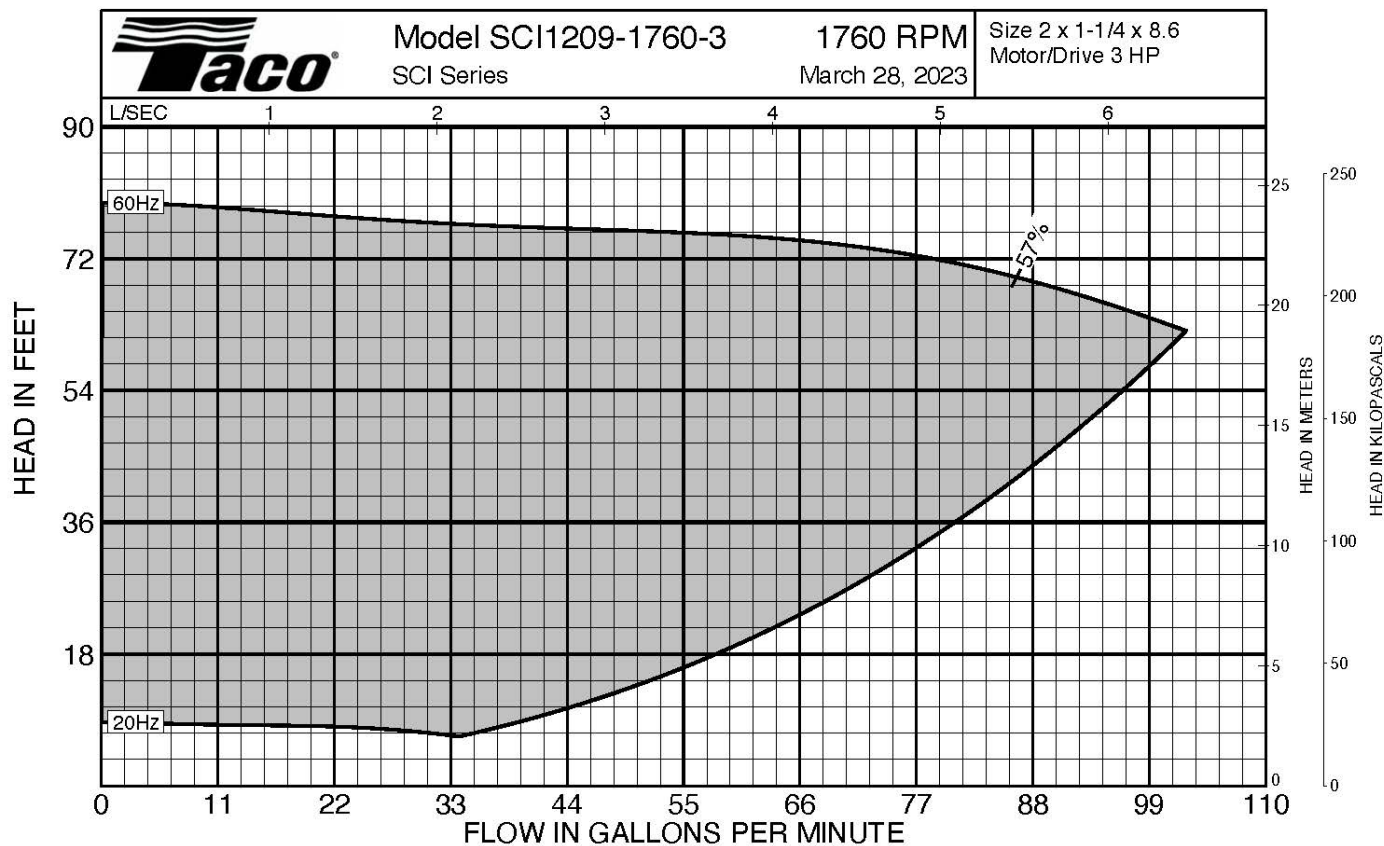
## OPERATING SPECIFICATIONS

|             | Standard             | Optional              |
|-------------|----------------------|-----------------------|
| Flange      | ANSI Class 125       | ANSI Class 250        |
| Pressure    | 175 PSIG* (1210 KPA) | 300 PSIG** (2070 KPA) |
| Temperature | 250°F (120°C)        | 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 Dim.



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

**SPECIFICATIONS:**

| MOTOR DESIGN DATA |    |
|-------------------|----|
| HP                |    |
| Volts             |    |
| Frequency         | Hz |
| Phase             |    |

| DRIVE DATA                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocols (Standard)       | BACnet, Modbus RTU, N2 Metasys, FLN Apogee, FC Protocol                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protocols (Optional)       | <input type="checkbox"/> LonWorks® <input type="checkbox"/> DeviceNet <input type="checkbox"/> Profibus                                                                                                                                                                                                                                                                                                                                                                                                           |
| Enclosure                  | <input type="checkbox"/> NEMA Type 1 / IP21                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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 | <input type="checkbox"/> None <input type="checkbox"/> General Purpose I/O <input type="checkbox"/> Relay Card <input type="checkbox"/> 24VDC Supply <input type="checkbox"/> Analog I/O                                                                                                                                                                                                                                                                                                                          |
| Electrical Configuration   | <input type="checkbox"/> Basic (no disconnect)<br><input type="checkbox"/> Mechanical disconnect<br><input type="checkbox"/> Fused disconnect<br><input type="checkbox"/> 2 Contactor Bypass - Drive Fusing & Main Disconnect (5kA SCCR)<br><input type="checkbox"/> 2 Contactor Bypass - Main Fusing & Disconnect (100kA SCCR)<br><input type="checkbox"/> 3 Contactor Bypass - Drive Fusing & Main Disconnect (5kA SCCR)<br><input type="checkbox"/> 3 Contactor Bypass - Main Fusing & Disconnect (100kA SCCR) |
| ENI/RFI Control            | Integated 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                                                                                                                                                                                                                                                                                                                                                                                                                 |

| CONTROL CONNECTIONS            |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Analog input (follower signal) | 2; selectable voltage or current, direct and inverse acting |
| Digital inputs (programmable)  | 6 (2 can be used as digital outputs)                        |
| Analog outputs (programmable)  | 1; 0/4 to 20 mA                                             |
| Relay outputs (programmable)   | 2 standard Form C 240 V AC, 2 A; 1 or 3 additional optional |
| Auxiliary voltage              | +24 V DC, maximum 200 mA                                    |
| Communication port             | 1 RS485, 1 USB                                              |

