

SFI Series Pump - NEMA 12 | Submittal Data

Submittal No: 301-S819 | Model: SFI4009D | RPM: 1760 | HP: 20HP | TEFC | Effective: August 23, 2021 | Supersedes: NEW

JOB: _____

REPRESENTATIVE: _____

ENGINEER: _____

CONTRACTOR: _____

PRODUCT DATA

ITEM NO. _____

DOE BASIC MODEL NO. _____ SFI4009D-A-4P-PD

MODEL NO. _____ VOLTAGE _____

PEI_{VL} _____ 0.46 _____ HI ENERGY RATING _____ 54

IMPELLER DIA. _____ WEIGHT _____

GPM _____ PUMP/MOTOR _____

HEAD/FT _____ FREQUENCY _____

RPM _____ 1760 _____ HP _____ 20 _____ PHASE _____

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

DIMENSIONS

Model No. | 4009D

Flange Size (Suction x Discharge) | 5 x 4 (127 x 102)

	HORSEPOWER	20
TEFC	MOTOR FRAME	256T
	G MAX	23.41 (594)
	MAXIMUM ASSEMBLY WEIGHT LBS. (KG)	655 (297)
A	ANSI Class 125: 5.31 (135)	
	ANSI Class 250: 5.75 (146)	
B	ANSI Class 125: 12.50 (317)	
	ANSI Class 250: 12.81 (325)	
C	19.17 (487)	
D	43.0 (1092)	
E	ANSI Class 125: 3.38 (86)	
	ANSI Class 250: 2.94 (75)	
F	14.03 (356)	
J	ANSI Class 125: 18.91 (480)	
	ANSI Class 250: 19.35 (492)	
K	17.67 (449)	
N	2.00 (51)	
P	39.0 (991)	

(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	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	Stainless Steel TYPE 416" T ASTM A582	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	Stainless Steel TYPE 416" T ASTM A582	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

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 1 Analog Current Output / 2 Analog Inputs 2 Pulse Inputs 2 Form C Relays
ADDITIONAL CONTROL OPTIONS	None General Purpose I/O Relay Card 24VDC Supply Analog I/O
ELECTRICAL CONFIGURATION	Basic (no disconnect) Mechanical disconnect Fused disconnect 2 Contactor Bypass - Drive Fusing & Main Disconnect (5kA SCCR) 2 Contactor Bypass - Main Fusing & Disconnect (100kA SCCR) 3 Contactor Bypass - Drive Fusing & Main Disconnect (5kA SCCR) 3 Contactor Bypass - Main Fusing & Disconnect (100kA SCCR)
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 -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)



COMMENTS

