SFI Series Pump - NEMA 1 | Submittal Data

Submittal No: 301-S025 | **Model:** SFI1507D | **RPM:** 3500 | **HP:** 20HP | ODP | **Effective:** January 27, 2020 | **Supersedes:** NEW

JOB: _____ **REPRESENTATIVE:** _____

ENGINEER: _____ **CONTRACTOR:** _____

PRODUCT DATA

ITEM NO. _____ **DOE BASIC MODEL NO.** SFI1507D-A-2P-PD

MODEL NO. _____ **VOLTAGE** _____ **PEI$_{VL}$** 0.45 **HI ENERGY RATING** 55

IMPELLER DIA. _____ **WEIGHT** _____

GPM _____ **PUMP/MOTOR** _____

HEAD/FT _____ **FREQUENCY** _____

RPM 3500 **HP** 20 **PHASE** _____

NSF 61 CERTIFIED ☐ YES ☐ NO

OPERATING SPECIFICATIONS

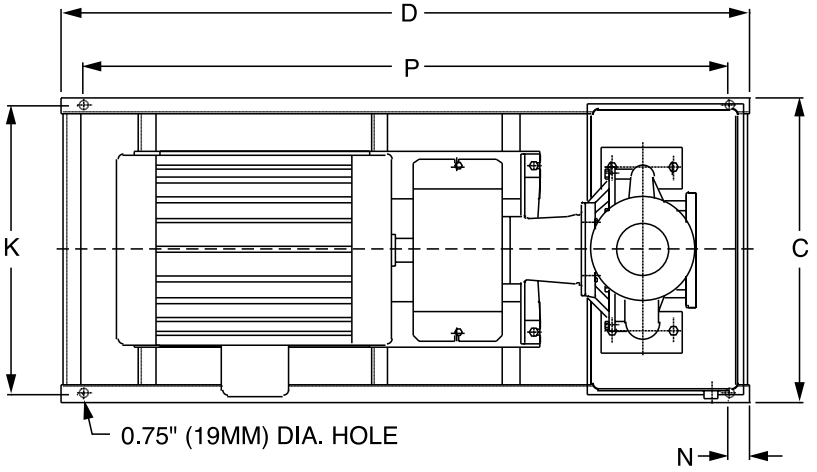
	FLANGE	PRESSURE	TEMPERATURE
STANDARD	ANSI Class 125	175 PSIG* (1210 KPA)	250°F (120°C)
OPTIONAL	ANSI Class 250	300 PSIG** (2070 KPA)	250°F (120°C)

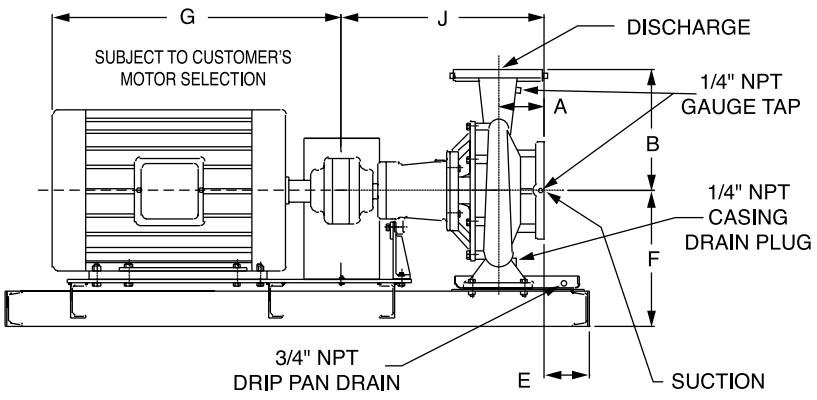
Motors: All NEMA Standard (T Frame)
* In accordance with ANSI Standard B16.1 Class 125
** In accordance with ANSI Standard B16.1 Class 250

DIMENSIONS

Model No. | 1507D
Flange Size (Suction x Discharge) | 2 ½ x 1 ½ (64 x 38)

HORSEPOWER		20
ODP	**MOTOR FRAME**	254T
	G MAX	22.57 (573)
	MAXIMUM ASSEMBLY WEIGHT LBS. (KG)	528 (240)
A		ANSI Class 125: 3.75 (95)
		ANSI Class 250: 4.01 (102)
B		ANSI Class 125: 7.25 (184)
		ANSI Class 250: 7.50 (191)
C		16.17 (411)
D		39.0 (991)
E		ANSI Class 125: 0.76 (19)
		ANSI Class 250: 0.45 (11)
F		10.61 (269)
J		ANSI Class 125: 17.16 (436)
		ANSI Class 250: 17.47 (444)
K		14.67 (373)
N		2.00 (51)
P		35.0 (889)





(Dimensions are for NEMA ODP)
50 Cycle Performance Curves attached when applicable

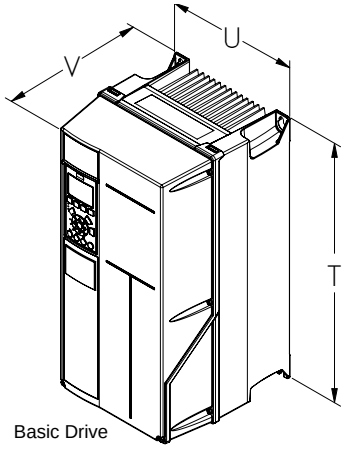
English dimensions are in inches. Metric dimensions are in millimeters.
Metric data is presented in ( ).
Do not use for construction purposes unless certified.

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

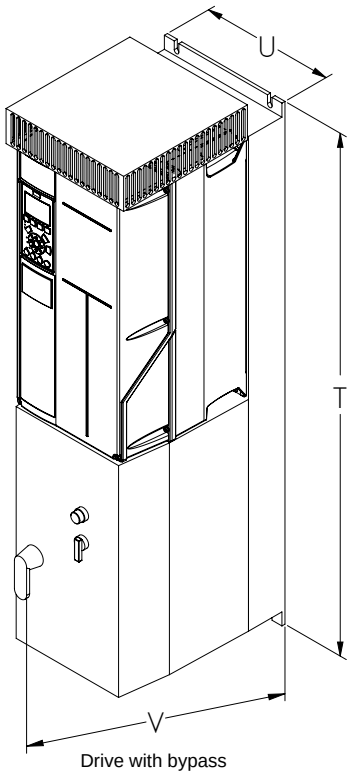
N/A - Not Available

DRIVE DATA

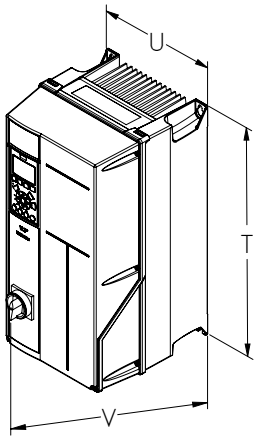
PROTOCOLS (Standard)	BACnet, Modbus RTU, N2 Metasys, FLN Apogee, FC Protocol
PROTOCOLS (Optional)	☐ LonWorks® ☐ DeviceNet ☐ Profibus
ENCLOSURE	NEMA Type 1 / IP21
I/O (Standard)	6 Digital Inputs / 2 Digital Outputs 1 Analog Current Output / 2 Analog Inputs 2 Pulse Inputs 2 Form C Relays
ADDITIONAL CONTROL 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



Basic Drive



Drive with bypass

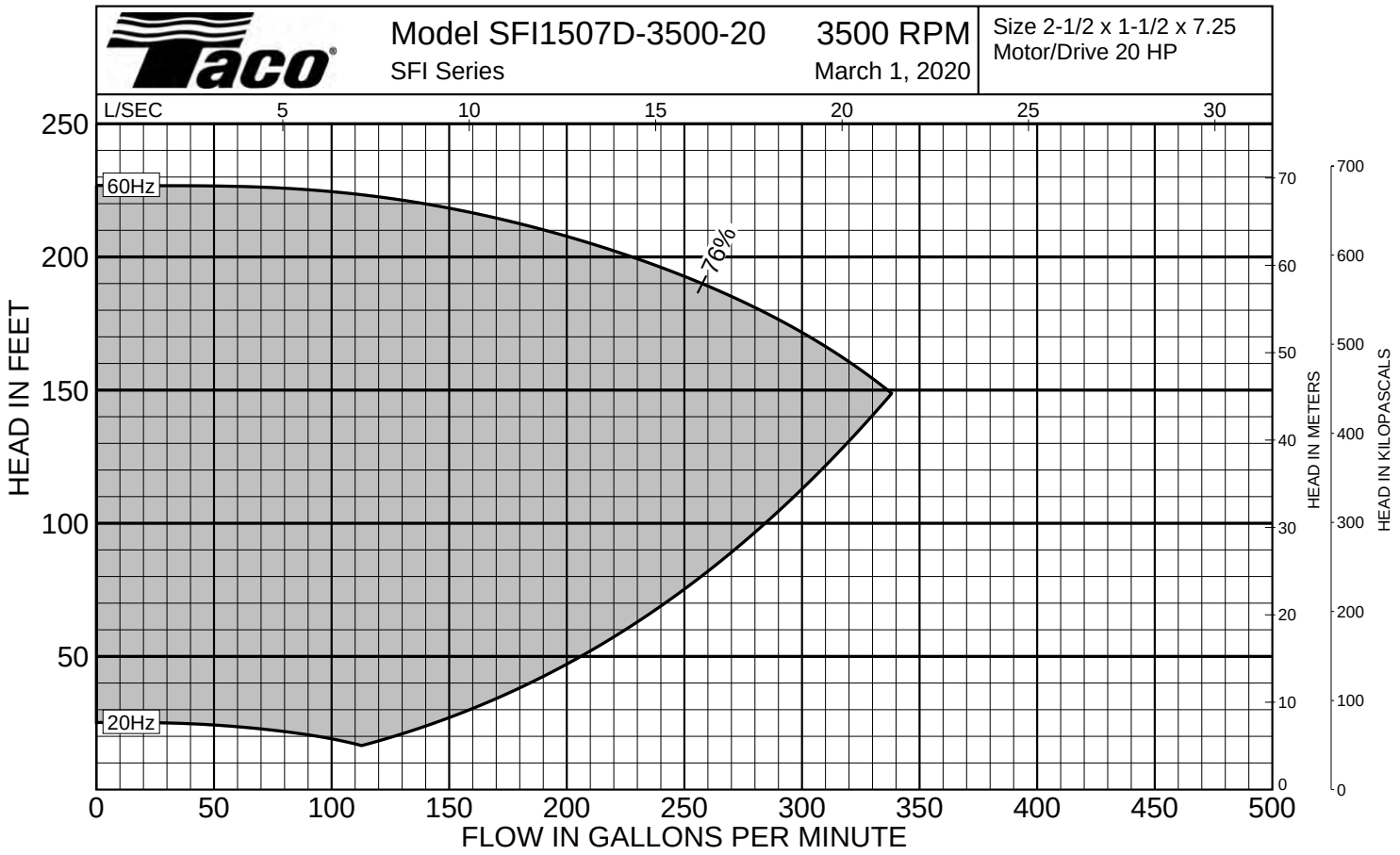


Drive with optional disconnect

DRIVE DIMENSIONS

HP RANGE			FRAME	DIMENSIONS - IN (MM)		
208V	460V	575V		T	U	V
1.5 (1.1) - 3 (2.2)	1.5 (1.1) - 5 (4.0)	N/A	WITHOUT BYPASS (A2)	19.1 (485)	5.1 (130)	9.6 (245)
			WITH BYPASS (A2)	31.7 (806)	7.6 (194)	9.7 (247)
4 (3.0) - 5 (4.0)	7.5 (5.5) - 10 (7.5)	1.5 (1.1) - 10 (7.5)	WITHOUT BYPASS (A3)	19.1 (485)	5.1 (130)	9.6 (245)
			WITH BYPASS (A3)	31.7 (806)	7.6 (194)	9.7 (247)
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)	41.8 (1061)	9.1 (231)	15.9 (405)
20 (15) - 20 (15)	30 (22) - 40 (30)		WITHOUT BYPASS (B2)	25.6 (650)	9.5 (242)	12.1 (308)
			WITH BYPASS (B2)	43.2 (1098)	9.6 (243)	17.7 (450)

COMMENTS



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