



Submittal Data Information

SFI Series Pumps

301-2704-H

EFFECTIVE: May 05, 2023

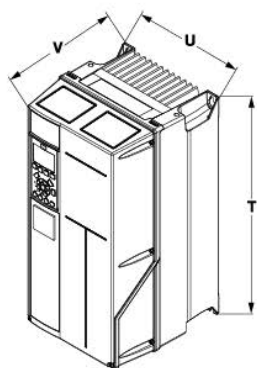
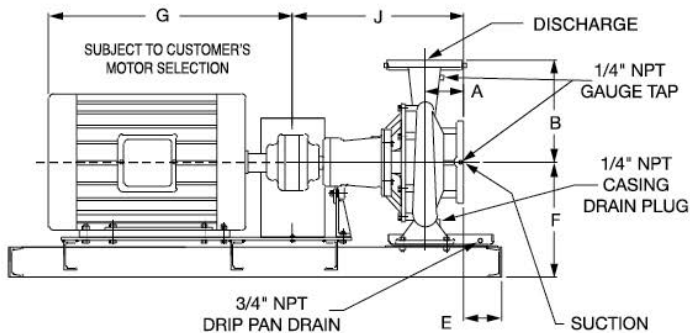
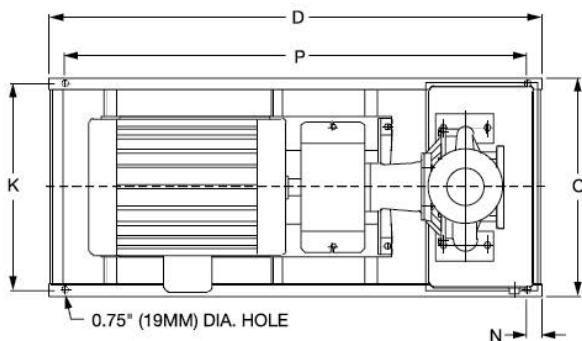
SUPERSEDES: January 27, 2020

MODEL SFI1209-3500-20

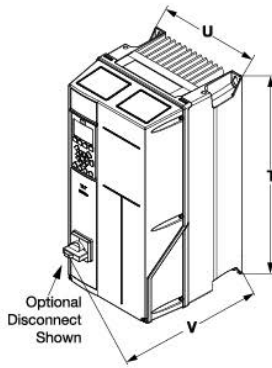
JOB: _____ ENGINEER: _____

CONTRACTOR: _____ REP: _____

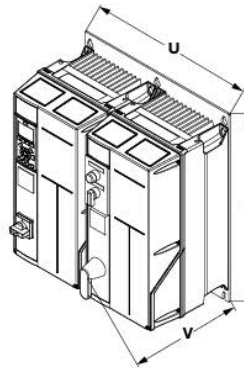
ITEM NO.	MODEL NO.	IMPELLER DIA.		G.P.M.	HEAD/FT	H.P.	ELEC. CHAR.
Configuration	DOE Basic Model Number	PEI Value		Energy Rating	WEIGHT _____ PUMP/MOTOR _____		
Pump + Motor + Drive	SFI1209C-A-2P-PD	PEI _{eff}	0.46	54			



Basic drive



Drive with optional disconnect



Drive with bypass

HP Range			Frame	Dimensions - Inches (mm)		
208V	460V	575V		T	U	V
7.5 (5.5) - 15 (11.0)	15 (11.0) - 25 (18.0)	15 (11.0) - 25 (18.0)	Without bypass B1	18.9 (480)	9.5 (242)	12.1 (308)
7.5 (5.5) - 15 (11.0)	15 (11.0) - 25 (18.0)	15 (11.0) - 25 (18.0)	With bypass B1	21.5 (546)	19.1 (485)	12.9 (327)
20 (15.0) - 20 (15.0)	30 (22.0) - 40 (30.0)	30 (22.0) - 40 (30.0)	Without bypass B2	25.6 (650)	9.5 (242)	12.1 (308)
20 (15.0) - 20 (15.0)	30 (22.0) - 40 (30.0)	30 (22.0) - 40 (30.0)	With bypass B2	28.2 (716)	19.1 (485)	12.9 (327)

DIMENSIONS for NEMA TEFC Type 12 / IP55

50 Cycle Performance Curves attached when applicable.

Model No. Flange Size (Suction x Discharge)	Motor Frame	HP 3600 RPM	A ANSI Class 125	B ANSI Class 125	C	D	E ANSI Class 125	F	G	J ANSI Class 125	K	N	P
1209-20 1 1/2 x 1 1/4 (38 x 32)	256T	20	3.50 (89)	9.10 (231)	19.17 (487)	50.0 (1270)	3.39 (86)	11.28 (287)	23.13 (589)	17.05 (433)	17.67 (449)	2.00 (51)	46.0 (1166)

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
Impeller	Bronze ASTM B584-836	N/A	Cast Iron ASTM A48 Class 30A	N/A
Wear Ring	N/A	Bronze ASTM B584-932 SAE660	N/A	N/A
Shaft	Carbon Steel AISI 1054	Stainless Steel AISI 416 ASTM A382	Carbon Steel AISI 1054	Stainless Steel AISI 416 ASTM A382
Shaft Sleeve	Bronze ASTM B584-932 SAE660	Stainless Steel AISI 303 ASTM A276	Stainless Steel AISI 303 ASTM A276	N/A
Mech. Seal	Ceramic/EPT	C/F	Ceramic/EPT	C/F
Seal Flush Line	N/A	Copper	N/A	Stainless Steel

CF - Consult Factory

NA - Not Available

Model No. Flange Size (Suction x Discharge)	HP 3600 RPM	A ANSI Class 250	B ANSI Class 250	E ANSI Class 250	J ANSI Class 250
1209-20 1 1/2 x 1 1/4 (38 x 32)	20	3.75 (95)	9.36 (238)	3.14 (80)	17.30 (439)

MAXIMUM ASSEMBLY WEIGHT

Motor Frame	Weight Lbs (Kg)
256T	564 (256)

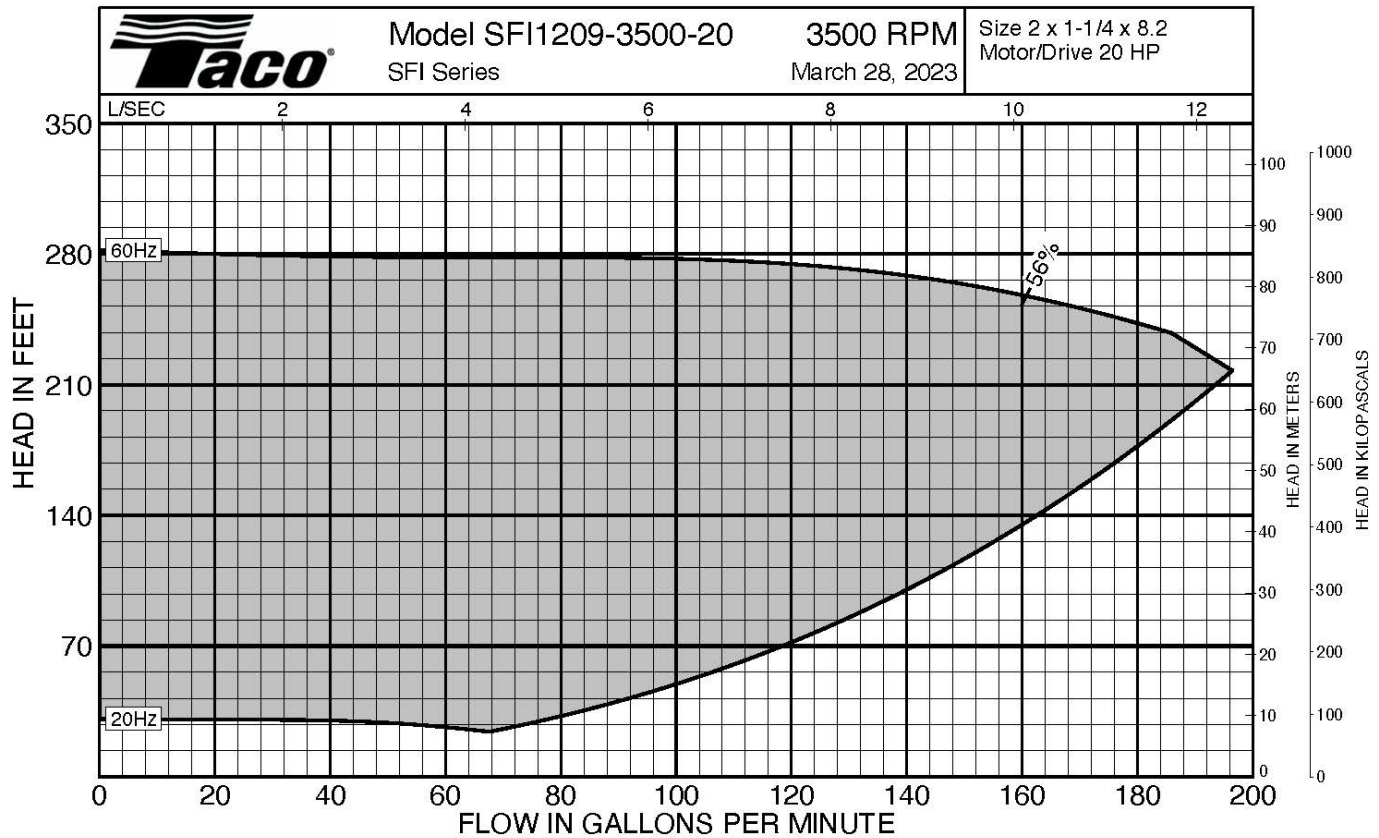
OPERATING SPECIFICATIONS

	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

COMMENTS: _____

SPECIFICATIONS:

MOTOR DESIGN DATA	
HP	
Volts	
Frequency	Hz
Phase	

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)
ENI/RFI Control	Integated 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

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

