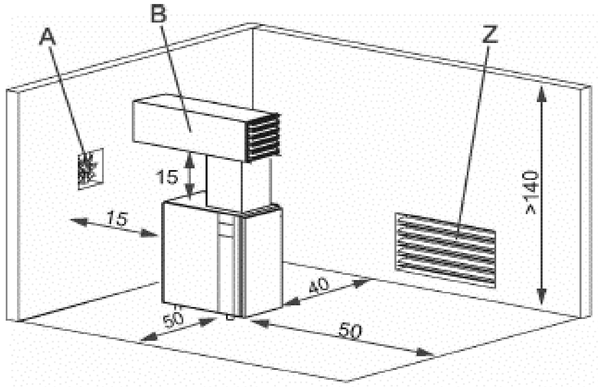
Installation Data Sheet

Series: 1:1 Direct Drive CSDX.5 SFC
Document No.: TI-DATA-2018-SFC 90ST 110ST
Version: 1.3
Revision Date: 06/01/2020

Model	SFC 90ST						SFC 110ST					
Rated Pressure [psig]	**110**	**125**	**145**	**175**	**190**	**217**	**110**	**125**	**145**	**175**	**190**	**217**
I. COOLING DATA												
Cooling System Available [Std., Opt.]	A/C, W/C						A/C, W/C					
Standard Ambient Temp. Range [°F]	40 - 115						40 - 115					
VENTILATION OF COMPRESSOR ROOM												
Air Inlet Opening [sq. ft. **free area**] (A/C) **Z**	25.8						30.1					
Air Inlet Opening [sq. ft. **free area**] (W/C) **Z**	9.7						10.8					
Solution A (forced ventilation with exhaust fan) as shown in service manual												
Cooling Fan Capacity [CFM] (A/C)	20,012						22,955					
Cooling Fan Capacity [CFM] (W/C)	7,652						8,240					
Solution B (exhaust air used for space heating) as shown in service manual												
Internal Cooling Fan Capacity [CFM] (A/C)	Compressor			Dryer			Compressor			Dryer		
	6,474			2943			7,651			2943		
Internal Cooling Fan Capacity [CFM] (W/C)	3,943						3,943					
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C) | (W/C)	0.24 / 0.12						0.24 / 0.12					
Exhaust Air Opening Reference Dimensions (L x W) [in] — See drawing for actual dimensions. The actual individual duct dimension will vary for every installation based on actual length, number and type of bends, accessories etc.	40 x 40						40 x 40					

Model shown for reference only
Actual Duct size may vary with installation



A **Exhaust Fan**

B **Exhaust Air Duct**

Z **Inlet Air Opening**

Recommended machine placement and dimensions — **inches**

	Compressor to Duct clearance =	**15**
L	**Left side clearance =**	**15**
R	**Right side clearance =**	**50**
F	**Front clearance =**	**50**
BK	**Back clearance =**	**40**
H	**Height clearance =**	**140**

AIR COOLED DATA												
Internal Cooling Fan Capacity [CFM]	6,474						7,651					
Approach Temp. [°F] — Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	12.6		10.8		9		14.4		12.6		10.8	
Typical Heat Rejected [BTU / HR]	307,500						371,000					
Fan Motor [HP]	1.3						1.9					
WATER COOLED DATA												
Type of heat exchangers	stainless steel, plate type						stainless steel, plate type					
Internal Cooling Fan Capacity [CFM]	3943						3943					
Approach Temp. [°F] — Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	5.4						5.4					
Heat Rejected into Cooling Water [BTU / HR]	305,000						367,500					
Heat Rejected into Cooling Air [BTU / HR]	25,180						26,834					
Max. outlet temperature [°F] — Discharge temperature limited for non-treated water (to prevent calcification).	122						122					
Temperature differential between inlet water and max. discharge water temperature [°F]	20			50			20			50		
Max. inlet water temperature [°F]	104			68			104			68		
Min. cooling water flow [gpm]	30			12			35			14		
Pressure drop across compressor package [psi] **WITHOUT** cooling water throttling valve	9			2.9			11.6			2.9		
Pressure drop across compressor package [psi] **WITH** cooling water throttling valve	28			7			38			8		

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Specifications are subject to change without notice.

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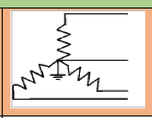
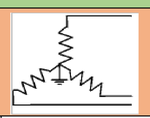
II. ELECTRICAL DATA	***Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant.***											
DRIVE MOTOR												
Motor HP	100						125					
Insulation Class	F						F					
Standard Voltage	460V/3ph/60Hz						460V/3ph/60Hz					
Full Load Amps [FLA] @ 460V/3ph/60Hz	156						186					
Full Load Amps [FLA] @ 575V/3ph/60Hz	CF						CF					
FAN MOTOR (A/C)												
Insulation Class	F						F					
Fan Motor [HP]	1.3						1.9					
Full Load Amps [FLA] @ 460V/3ph/60Hz	2.9						2.9					
Full Load Amps [FLA] @ 575V/3ph/60Hz	CF						CF					
FAN MOTOR (W/C)												
Insulation Class	F						F					
Fan Motor [HP], Single Speed	0.13						0.13					
Full Load Amps [FLA] @ 460V/3ph/60Hz	1.45						1.45					
Full Load Amps [FLA] @ 575V/3ph/60Hz	CF						CF					
TOTAL PACKAGE DATA (A/C)												
Do NOT operate package on any unsymmetrical power supply. Also do NOT operate package on power supplies like, for example, a three-phase (open) delta or three-phase star with non-grounded neutral. The machine requires a symmetrical three-phase power supply transformer with a WYE configuration output as shown on the right. In a symmetrical three-phase supply the phase angles and voltages are all the same. Other power supplies are not suitable.	 **three-phase star (wye); 4-wire; grounded neutral**						 **three-phase star (wye); 3-wire; grounded neutral**					
Continuous Duty [Hours per day]	24						24					
Control Cabinet Class (NEMA)	12						12					
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz	50						50					
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	CF						CF					
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	156						184					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	CF						CF					
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz	Dual-element time-delay fuse; based on 2017 NEC 240.6, 430.52, and Tables 430.52, 430.248,and 430.250.						200					
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz							CF					
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz	Based on 2017 NEC 110.14(C), 220.3, 310.15, Table 310.15(B)(2)(a), 310.15(B)(3)(a), 430.6, 430.22, 430.24 and 670.4(A). Use multi-strand copper core wire. Size calculated based on 40oC ambient temperature, with 60°C insulation rated wire if package FLA x 1.25 is less than 100A or 75°C temperature rated wire for 100A and larger.						4/0 AWG per phase and ground					
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz							CF					
TOTAL PACKAGE DATA (W/C)												
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	155						183					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	CF						CF					

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INSTALLATION and MAINTENANCE DATA													
A/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]	73						74					
W/C with Super Soundproofing [dB(A)]		72						73					
A/C Air Discharge [inches NPT or Flange]		2 NPT											
W/C Air Discharge [inches NPT or Flange]		2 NPT											
Cooling Water Connection [inches NPT or Flange]		1 1/4 NPT											
Power Input Conduit Opening(s) [inches]		1 x 2 1/2											
Condensate Drain Connection [NPT]		2 x 1/4											
Width [inches]		98 7/8											
Depth [inches]		50 3/4											
Height [inches]		76 3/4 A/C, 78 1/8 W/C											
Floor Space [sq. ft.]		34 6/7											
Weight (A/C) [lb]	Weight may vary based on airend selected.	4,112						4,332					
Weight (W/C) [lb]		4,112						4,332					
COMPRESSOR FLUID DATA													
Fluid Capacity (A/C) [gal]		13.7						13.7					
Fluid Capacity (W/C) [gal]		13.2						13.2					
Flow Rate [gal/min]		33.0						33.0					
Typical Oil Consumption [fl. Oz./100 h]		12.8						15.3					
Standard Fluid Type		Sigma M-460						Sigma M-460					
MAINTENANCE PARTS													
Air Inlet Filter		6.4148.1 + 6.4993.0											
Filter Mat (optional)		6.1945.0 (x2)											
Filter Mat for Control Cabinet		7.4519.00040 (x1), 7.4519.00010 (x4)											
Fluid Filter		6.4693.0											
Fluid Separator Kit		6.3623.0											
Maintenance Kit for Optional 5-year warranty		ANAKCSDX5SFS											
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant		ANAKCSDX5SFF											
DRYER DATA - FOR T MODELS													
Dryer Model		ABT 165						ABT 165					
Maximum Inlet Air Pressure (Compressed Air at Inlet to Dryer) [psig]		232						232					
Nominal Pressure Drop at Rated Flow [psid]		1.5						1.5					
Rated Dewpoint [°F] at Standard Conditions	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	38						38					
REFRIGERATION SYSTEM DATA - FOR T MODELS													
Compressor Type		MLZ021T4LP9A						MLZ021T4LP9A					
BTU/Refrigeration ASHRAE		19,900						19,900					
Outlet Air Temperature (Nominal at Rated Conditions) [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	78						78					
Refrigerant Type		R-513A						R-513A					
GWP (Global Warming Potential)		631						631					
CO2 equivalent [t]		1.1						1.1					
Refrigerant Charge [lb]		4.0						4.0					
Air Flow Across Condenser [CFM]		2,943						2,943					